



Incident ID	NAB1834730382
District RP	2RP-5103
Facility ID	fAB1834729696
Application ID	pAB1834729291

February 21, 2019

Christina Hernandez
 New Mexico Energy, Minerals and Natural Resources Department
 Oil Conservation Division, District 1
 1625 French Drive
 Hobbs, NM 88240

Re: Site Assessment Report and Proposed Remediation Plan
Site Name: Cal B Pipeline
GPS: Latitude: 32.0647 Longitude: -103.7254
Legals: UL "A", Sec. 12, T26S, R31E
Eddy County, New Mexico
NMOCD Ref. No. 2RP-5103

Lowry Environmental & Associates, LLC (LEA), on behalf of ETC Texas Pipeline, Ltd., has prepared this Site Assessment Report and Proposed Remediation Plan for the Release Site known as the Cal B Pipeline. Details of the release are summarized on the table below:

Nature and Volume of Release	
Date Release Discovered	11/22/2018
Type of Release	Natural Gas & Produced Water
Source of Release	Pipeline
Volume Released	25.3 bbls (Produced Water)
Volume Recovered	25.563 MscF (Natural Gas) None
Cause of Release The release flowed south across an oilfield access road, an ETC natural gas pipeline, two Kinder Morgan High-Pressure Pipelines affecting an area measuring approximately 6,500 sq. ft.	
Affected Area The release flowed south across an oilfield access road, an ETC natural gas pipeline, two Kinder Morgan High-Pressure Pipelines affecting an area measuring approximately 6,500 sq. ft.	
Was this a major release?	If YES, for what reasons (s) is this considered a major release?
Yes	Unauthorized release of a volume of liquids exceeding 25 bbls.
If Yes, was immediate notice given to the OCD? By whom? To whom? When and by what means? Dean Ericson, Mike Bratcher, 11/22/2018 @ 15:31 MST, Phone/Email	

A copy of the Release Notification (NMOCD Form C-141) is provided as Attachment #8.

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Site Assessment/Characterization

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 Ft.
Did this release impact groundwater or surface water?	No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	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)?	No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	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?	No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	No
Are the lateral extents of the release within 300 feet of a wetland?	No
Are the lateral extents of the release overlying a subsurface mine?	No
Are the lateral extents of the release overlying an unstable area such as karst geology?	No
Are the lateral extents of the release within a 100-year floodplain?	No
Did the release impact areas not on an exploration, development, production or storage site?	Yes

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey was conducted in an effort to determine the average depth to groundwater within a 1 Mile radius of the Site and identify any registered water wells within a 1/2 Mile radius of the Site. A search of the NMOSE database suggested the presence of 1 water well (C 02090) within 1,000 ft. of the site. A field survey indicated available geographic information for C 02090 is outdated and/or incorrect; there is no water well in that vicinity. A search of the USGS database did not identify any water wells within a 1/2 Mile radius.

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release	
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons	2500 mg/kg
Combined GRO and DRO	1000 mg/kg
Chloride	20000 mg/kg

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2. Depth to groundwater information is provided as Attachment #4. A Photographic Log is provided as Attachment #7.

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INITIAL SITE ASSESSMENT

On **December 4, 2018**, an initial site assessment was conducted. During the initial site assessment, eight (8) soil samples (V-1 4', V-1 8', V-2 6", V-2 18", V-3 6", V-3 1', V-4 6" and V-4 1') were collected and submitted to an NMOCD-approved laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples with the exception of soil samples V-1 4' which exhibited a TPH concentration of 4,553 mg/kg, V-2 6" which exhibited a TPH concentration of 19,900, V-3 6" which exhibited a TPH concentration of 13,610 mg/kg and V-4 1' which exhibited a combined GRO and DRO concentration of 1,151.4 mg/kg. Laboratory analytical indicated soil was not affected above the NMOCD Closure Criteria beyond 8 ft. bgs in the area characterized by sample point V-1, 1.5 ft. bgs in the area characterized by sample point V-2, and 1 ft. bgs in the area characterized by sample point V-3. Collection of additional samples in the area characterized by sample point V-4 was precluded due to the presence of an impenetrable rock layer.

In addition, twenty (20) soil samples (WH-1 6", WH-1 18", WH-2 6", WH-2 18", NH-1 6", NH-1 18", NH-2 6", NH-2 18", NH-3 2', NH-3 4', EH-1 6", EH-1 18", EH-2 6", EH-2 18", SH-1 6", SH-1 18", SH-2 6", SH-2 18", SH-2 6" and SH-2 18") were collected from the inferred edges of the impacted area in an effort to determine the horizontal extent of soil impacted above the NMOCD Closure Criteria. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

On **January 16, 2019**, LEA revisited the Site. A hand-auger was utilized to collect two (2) additional soil samples (NH-2B @ 6" and SH-3B @ 6") from the inferred edges of the impacted area. In addition, a masonry drill was utilized to collect seven (7) soil samples (V-2A @ 24", V-3A @ 18", V-4A @ 18", NH-2A @ 24", NH-2B @ 18", SH-3A @ 24" and SH3B @ 18") from the areas characterized by samples points V2, V-3, V-4, NH-2, NH-2B and SH-3A. Laboratory analytical results indicated TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. Soil sample V-2A @ 24" exhibited a TPH concentration of 425.8 mg/kg, which exceeds the BLM Reclamation Requirement. Collection of additional soil samples from deeper intervals in the area characterized by soil sample V-2A @ 24" was precluded due to the resilience of the rock and limitations masonry drill.

A masonry drill was utilized to collect soil samples in an effort to fully characterized an "unstable" Site and to meet the BLM Reclamation Standards. Repeated efforts with heavy equipment and masonry drills to penetrate deeper intervals suggests the Site is stable.

A table summarizing laboratory analytical results from soil samples collected during the initial site assessment is provided on the following page:

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Concentrations of BTEX, TPH and/or Chloride in Soil - Initial Assessment(s)											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					E300/4500Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
V-1 4'	12/4/18	4'	In-Situ	0.387	48.7	797	3,280	4,077	476	4,553	80.0
V-1 8'	12/4/18	8'	In-Situ	<0.050	<0.300	<10.0	44.2	44.2	12.8	57.0	144
V-2 6"	12/4/18	6"	In-Situ	7.54	278	4,910	13,200	18,110	1,790	19,900	80.0
V-2 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	147	147	56.7	204	80.0
V-2A @ 24"	1/16/19	24"	In-Situ	-	-	<10.0	374	375	50.8	425.8	-
V-3 6"	12/4/18	6"	In-Situ	4.35	235	3,470	9,010	12,480	1,130	13,610	48.0
V-3 1'	12/4/18	1'	In-Situ	<0.050	1.00	15.2	577	592	129	721	48.0
V-3A @ 18"	1/16/19	18"	In-Situ	-	-	<10.0	18.7	18.7	10.0	28.7	-
V-4 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	53.9	53.9	14.9	68.8	64.0
V-4 1'	12/4/18	1'	In-Situ	<0.050	0.986	51.4	1,100	1,151.4	230	1,381.4	32.0
V-4A @ 18"	1/16/19	18"	In-Situ	-	-	<10.0	74.8	74.8	11.2	86.0	-
WH-1 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	27.6	27.6	12.6	40.2	32.0
WH-1 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	12.7	12.7	<10.0	12.7	48.0
WH-2 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
WH-2 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
NH-1 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
NH-1 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
NH-2 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	49.0	49.0	<10.0	49.0	48.0
NH-2 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	199	199	16.9	215.9	32.0
NH-2A @ 24"	1/16/19	24"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
NH-2B @ 6"	1/16/19	6"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
NH2B @ 18"	1/16/19	18"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
NH-3 2'	12/4/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
NH-3 4'	12/4/18	4'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
EH-1 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
EH-1 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
EH-2 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
EH-2 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SH-1 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SH-1 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SH-2 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SH-3 6"	12/4/18	6"	In-Situ	<0.050	<0.300	<10.0	332	332	40.7	373	192
SH-3 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	101	101	13.6	115	208
SH-2 18"	12/4/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SH-3A @ 24"	1/16/19	24"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
SH-3B @ 6"	1/16/19	6"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
SH-3B @ 18"	1/16/19	18"	In-Situ	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	-
Closure Criteria				10	50	-	-	1,000	-	2,500	20,000

A "Site & Sample Location Map" is provided as Attachment #3. Field Data, if applicable, is provided as Attachment #9. Soil profile observations are provided on Attachment #5. Laboratory analytical reports are provided as Attachment #6.

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PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, ETC Texas Pipeline, Ltd. proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil adjacent to the release point in the area characterized by sample point V-1 beyond 4 ft. bgs, until laboratory analytical results from confirmation soil samples indicate BTEX, TPH and chloride concentrations are below the NMOCD Closure Criteria.
- Impacted soil in the areas characterized by sample points V-2, V-3, V-4, SH-2 and NH-2 will be excavated until laboratory analytical results from confirmation soil samples indicate BTEX, TPH and chloride concentrations are below the NMOCD Closure Criteria or the resilient rock layer is met, whichever comes first.
- Excavation sidewalls will be advanced horizontally until laboratory analytical results from confirmation soil samples indicate BTEX, TPH and chloride concentrations are below the NMOCD Closure Criteria and BLM Reclamation Standard.
- Excavated soil will be temporarily stockpiled on-site, atop on impermeable liner, pending transportation under manifest to an NMOCD-approved disposal facility.
- Upon advancing the floor of the excavation to the resilient receiving favorable laboratory analytical results from confirmation soil samples (below the NMOCD Closure Criteria) excavated areas will be backfilled with locally sourced, non-impacted "like" material. Excavation backfill will be placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable.

SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than **50 linear ft.** Based on the size of the anticipated excavation (~6,500 sq. ft.), ETC requests a minimum of **one (1)** representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every **500 square feet.** In the event portions of the excavation are not able to be advanced past the resilient rock layer, soil samples will still be collected to characterize impacts to the rock layer.

TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed **within 90 days** of receiving necessary approval(s) of this Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately **400 cubic yards** of soil has been affected above the NMOCD Closure Criteria.

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VARIANCE REQUEST

Dependent on the source, the affected area may be considered "high karst". Based on field observations including the resiliency of the rock layer and absences of voids or vugs ETC maintains that the area is stable.

ETCs maintains attempting to excavate portions of the release site beyond the resilient rock layer adjacent to, beneath and/or in between the buried pipelines and the disposal of the associated soil poses a risk to human health that exceeds the benefits of the excavation and disposal of impacted soil affected above the NMOCD Closure Criteria and/or BLM Reclamation Standard. This assertion is based primarily on the inherent dangers of continued and/or substantial excavation adjacent to oil and gas infrastructure, particularly where there are continuous resilient rock layers, and the risks associated with transporting the associated soil on public highways to a disposal facility. The assertion is further substantiated by the understanding that additional remediation activities, beyond that which has been proposed, will result in increasing the duration of exposure among environmental field personnel and/or exposure of additional environmental field personnel. Based on the aforementioned; the Site's distance from populated areas and/or drinking water supplies; a proposed cover consisting of approximately 1.5 ft. of non-impacted soil, further reducing the potential for future exposure; and the relative unlikelihood of future exposure resulting in diminished public health, ETC maintains the proposed variance will provide equal or better protection of public health.

Laboratory analytical results indicate chloride concentrations were less than the NMOCD Closure Criteria in each of the analyzed soil samples. Based on field observations and analytical results from delineation soil samples, it is inferred that impacted soil exhibiting BTEX concentrations above the NMOCD Closure Criteria will be excavated and that the maximum TPH concentration ETC proposes to leave in-situ is 1,381.4 mg/kg (V-4 1') at 1 ft. bgs. Laboratory analytical results indicate the resilient rock is no longer affected above NMOCD Closure Criteria and/or the BLM Reclamation Standard beyond 1.5 ft. bgs in the area represented by sample point V-4. Based on the aforementioned, the inferred depth to groundwater at the site and given 19.15.29 NMAC allows for impacted soil exhibiting TPH concentrations ranging from 100 mg/kg to 2,500 mg/kg to remain in-situ at depths greater than four (4) ft. bgs, where the distance between impacted soil and groundwater is not defined, ETC maintains the proposed variance will provide equal or better protection of fresh water and the environment.

ETC maintains attempting to excavate resilient portions of the rock layer poses a risk to human health and the environmental that exceeds the benefits the removal of the additional material. This is based primarily on the releases proximity to five (5) active buried pipelines laid within an area characterized by unusually resilient rock. While karst may be present in the area, shallow impacts from the surface release are limited to a zone which could be described as stable. Utilizing "hammer-hoe" or similar mechanical equipment to penetrate the "hard pan" would disrupt the natural hydrology.

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RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site.

If you have any questions, or need any additional information, please feel free to contact Dean Ericson or the undersigned by phone or email.

Respectfully,



Joel W. Lowry
Environmental Professional
Lowry Environmental & Associates, LLC

- Attachments:**
- Attachment #1- Figure 1 - Topographic Map
 - Attachment #2- Figure 2 - Aerial Map
 - Attachment #3- Figure 3 - Site & Sample Location Map
 - Attachment #4- Depth to Groundwater Information
 - Attachment #5- Soil Profile
 - Attachment #6- Laboratory Analytical Reports
 - Attachment #7- Photographic Log
 - Attachment #8- Release Notification (FORM C-141)
 - Attachment #9- Field Data

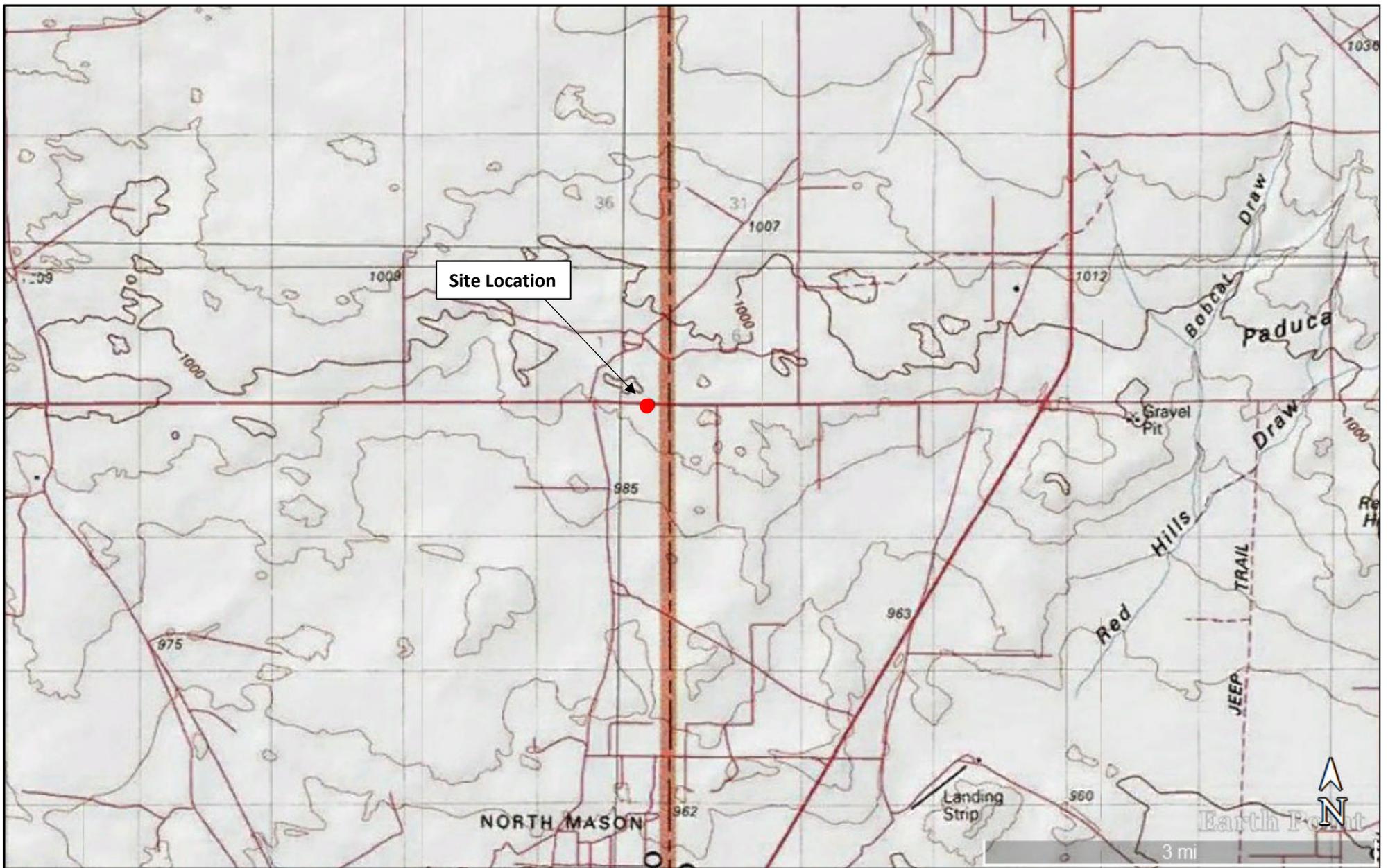
LIMITATIONS

This document has been prepared on behalf of ETC Texas Pipeline, Ltd.. Use of information contained in this report, including exhibits and attachments, by any other party without the consent of LEA and/or ETC Texas Pipeline, Ltd. is prohibited.

This document has been prepared in a professional manner, using the degree of skill and care exercised by similar environmental professionals. LEA notes that the facts and conditions referenced in this document may change over time and that the conclusions and recommendations are only applicable to the facts and conditions as described at the time this document was prepared.

LEA has prepared this report to the best of its ability. No other warranty, expressed or implied, is made or intended.

ATTACHMENT #1
Figure 1 - Topographic Map



LEGEND:

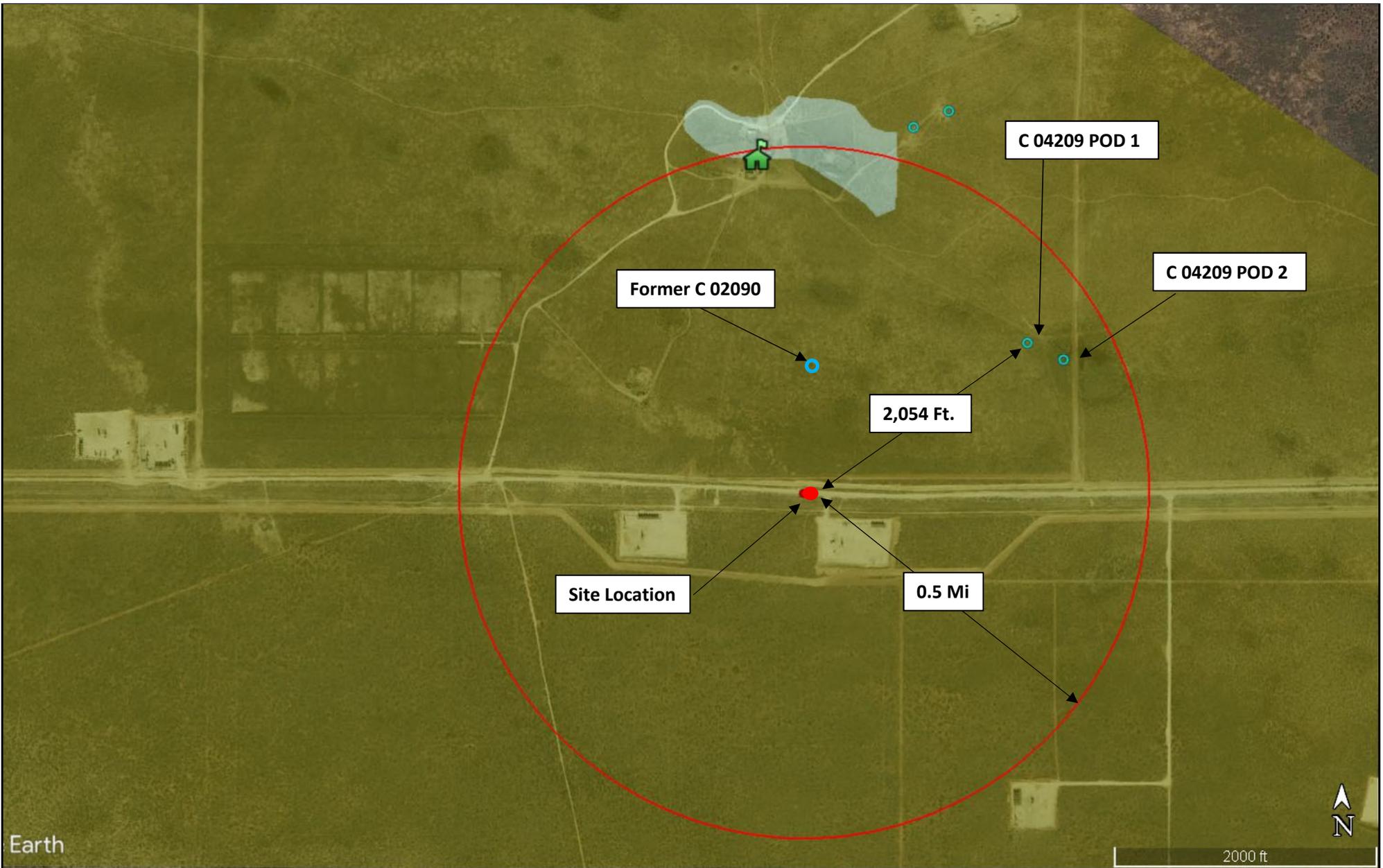
● Site Location

Figure 1
 Topographic Map
 ETC Texas Pipeline, Ltd.
 Cal B Pipeline
 GPS: 32.0647, -103.7254
 Eddy County, New Mexico

LOWRY
 environmental

Drafted by: jwl Checked by: client Date: 2/21/2019

ATTACHMENT #2
Figure 2 - Aerial Map



Earth

LEGEND:

	Site Location		Non-Industrial Building
	Fresh Water Well		Subsurface Mine
	100-Year Floodplain		
	High/Critical Karst		

Figure 2
 Aerial Map
 ETC Texas Pipeline, Ltd.
 Cal B Pipeline
 GPS: 32.0647, -103.7254
 Eddy County, New Mexico

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Drafted by: jwl Checked by: client Date: 2/21/2019

ATTACHMENT #3

Figure 3 - Site & Sample Location Map



- LEGEND:**
- Sample Point
 - Affected Area
 - ▭ Test Trench
 - Buried Pipeline

Figure 3
 Site & Sample Location Map
 ETC Texas Pipeline, Ltd.
 Cal B Pipeline
 GPS: 32.0647, -103.7254
 Eddy County, New Mexico

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Drafted by: jwl Checked by: client Date: 2/21/2019

ATTACHMENT #4
Depth to Groundwater Information



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 Number	Code	POD Sub-basin	County	Q 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_02090		C	ED	4	4	01	26S	31E		620329	3548533*	229	350	335	15
C_04209 POD2		C	LE	2	3	3	06	26S	32E	620818	3548657	624	340	155	185
C_04209 POD1		CUB	LE	2	3	3	06	26S	32E	620903	3548619	678	360	155	205
C_03554 POD1		CUB	ED	2	1	4	01	26S	31E	620547	3549148	878	630	300	330
C_03829 POD1		CUB	LE	3	3	1	06	26S	32E	620628	3549186	939	646	350	296
C_04256 POD1		C	ED	4	4	2	01	26S	31E	620384	3549257	955	666	340	326
C_03639 POD1		CUB	ED	3	4	2	01	26S	31E	620168	3549279	983	700	365	335

Average Depth to Water: **285 feet**

Minimum Depth: **155 feet**

Maximum Depth: **365 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 620302

Northing (Y): 3548305.1

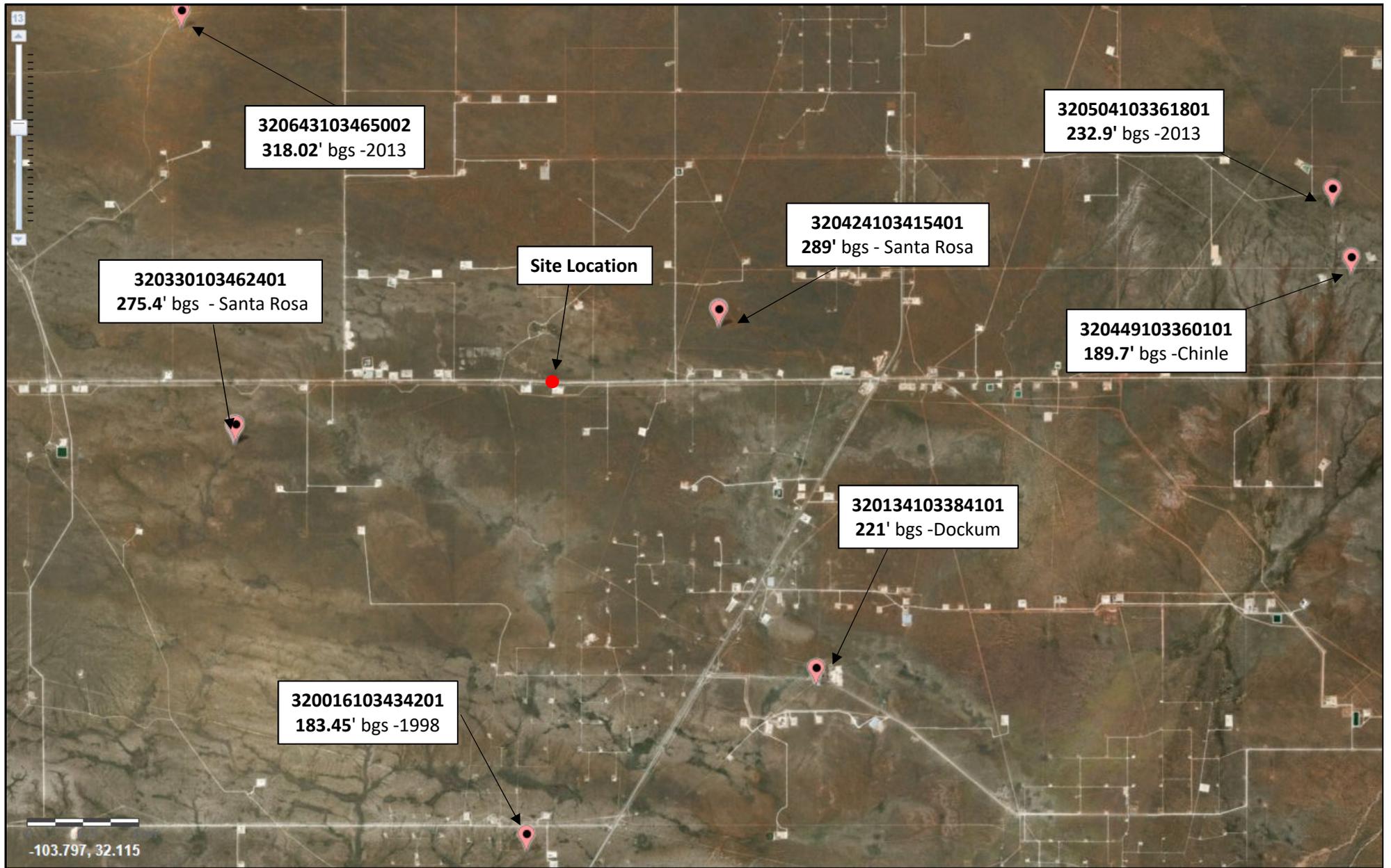
Radius: 1610

*UTM location was derived from PLSS - see Help

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

12/13/18 4:04 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



LEGEND:

● Site Location

Figure 5
 USGS Well Proximity Map
 ETC Texas Pipeline, Ltd.
 Cal B Pipeline
 GPS: 32.0647, -103.7254
 Eddy County, New Mexico

LOWRY
 environmental

Drafted by: jwl Checked by: client Date: 2/21/2019



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

United States

GO

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- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320016103434201

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320016103434201 26S.31E.35.13131

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code --

Latitude 32°00'16", Longitude 103°43'42" NAD27

Land-surface elevation 3,143 feet above NAVD88

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

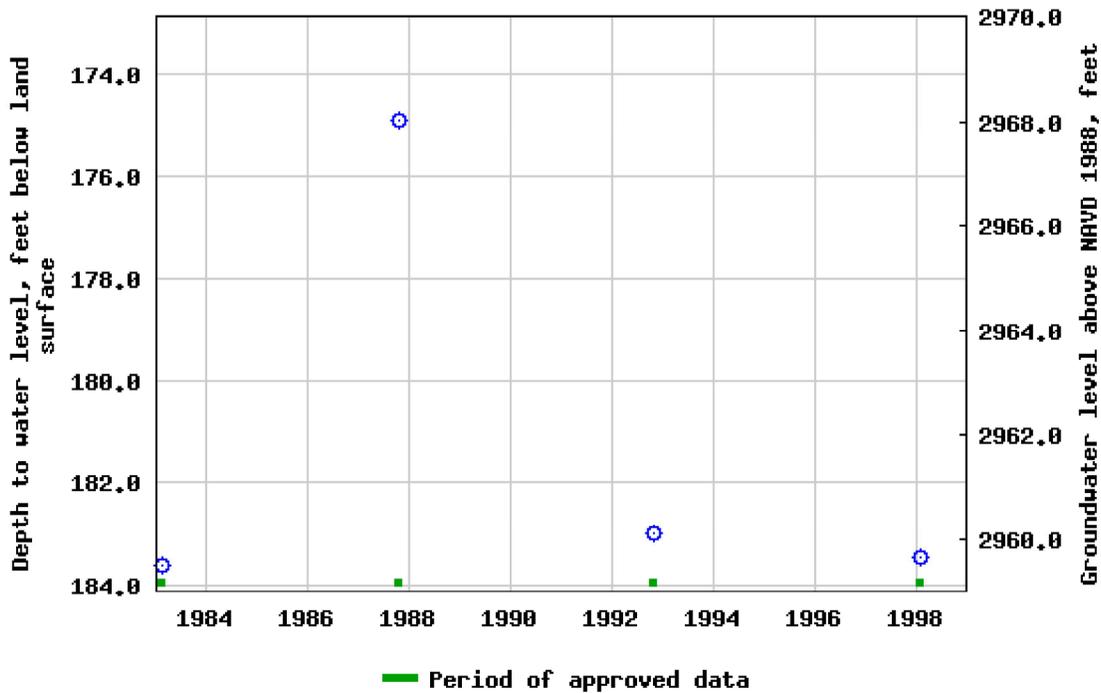
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

USGS 320016103434201 26S.31E.35.13131



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2018-12-13 17:20:43 EST

0.99 0.86 nadww01



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Data Category:

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Geographic Area:

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320629103533002

Minimum number of levels = 1

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USGS 320629103533002 25S.30E.21.33342 A

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code --

Latitude 32°06'29", Longitude 103°53'30" NAD27

Land-surface elevation 3,209 feet above NAVD88

The depth of the well is 280 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

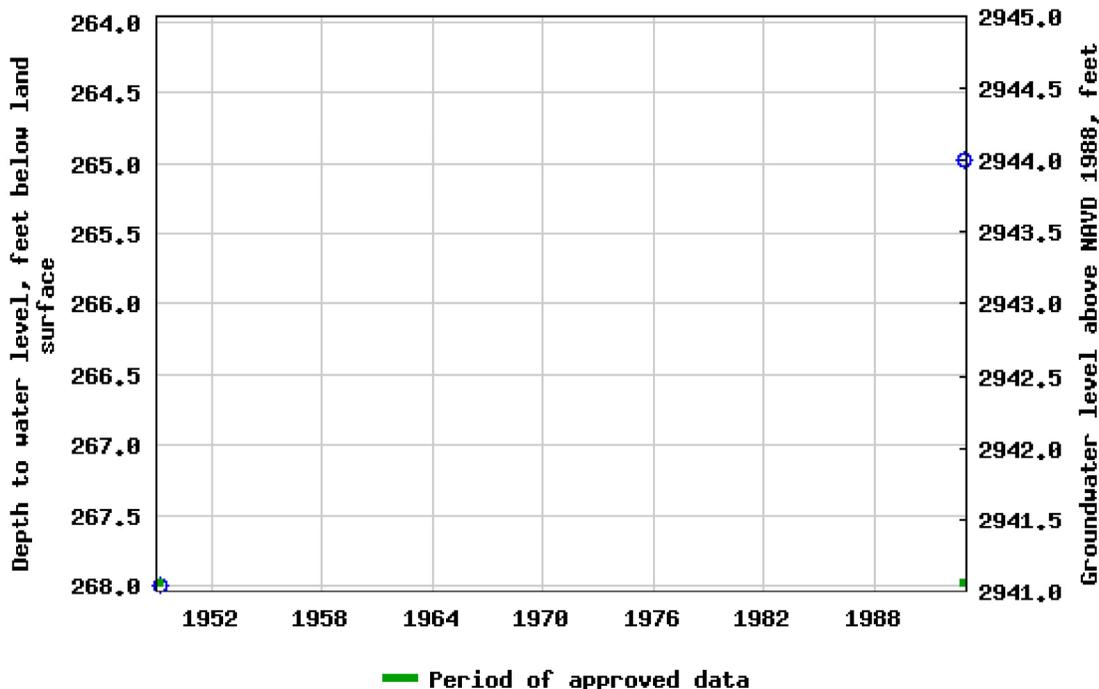
[Table of data](#)

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[Reselect period](#)

USGS 320629103533002 25S.30E.21.33342 A



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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



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1.12 0.9 nadww01



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Data Category:

Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320643103465002

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320643103465002 25S.31E.21.413314A

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13070001

Latitude 32°06'46.0", Longitude 103°46'56.3" NAD83

Land-surface elevation 3,374.00 feet above NGVD29

The depth of the well is 400 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

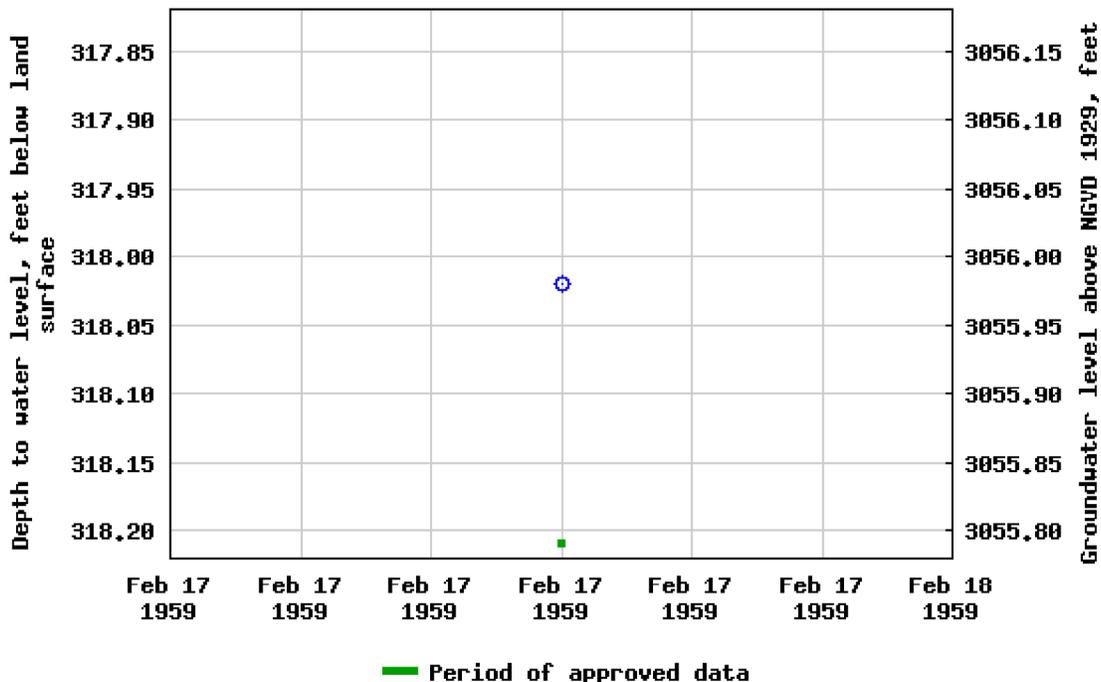
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

USGS 320643103465002 25S.31E.21.413314A



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2018-12-13 17:23:06 EST

1.04 0.9 nadww01

ATTACHMENT #5
Soil Profile

SOIL PROFILE

Site Name: Cal B

Date: 12/4/18

Description	Depth (ft. bgs)
Red Sand	1
v. Hard Rock / Concrete	2
	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0

TD

ATTACHMENT #6
Laboratory Analytical Reports



December 11, 2018

DEAN ERICSON
ENERGY TRANSFER
P. O. BOX 1226
JAL, NM 88252

RE: CAL - B

Enclosed are the results of analyses for samples received by the laboratory on 12/05/18 16:10.

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_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-1 4' (H803584-01)

BTEX 8021B		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.387	0.050	12/06/2018	ND	2.15	108	2.00	9.81	
Toluene*	11.4	0.050	12/06/2018	ND	2.07	103	2.00	10.6	
Ethylbenzene*	5.83	0.050	12/06/2018	ND	1.93	96.7	2.00	8.87	
Total Xylenes*	31.1	0.150	12/06/2018	ND	6.18	103	6.00	9.06	
Total BTEX	48.7	0.300	12/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 176 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/11/2018	ND	416	104	400	3.77	

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*	797	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	3280	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	476	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 170 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-1 8' (H803584-02)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	<0.300	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	44.2	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	12.8	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 93.4 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
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 P. O. BOX 1226
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 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-2 6" (H803584-05)

BTEX 8021B		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.54	0.500	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	86.6	0.500	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	28.6	0.500	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	156	1.50	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	278	3.00	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 133 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/11/2018	ND	400	100	400	3.92	

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*	4910	100	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	13200	100	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	1790	100	12/07/2018	ND					

Surrogate: 1-Chlorooctane 185 % 41-142

Surrogate: 1-Chlorooctadecane 467 % 37.6-147

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Analytical Results For:

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Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-2 18" (H803584-06)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	198	99.0	200	6.17		
DRO >C10-C28*	147	10.0	12/07/2018	ND	208	104	200	4.29		
EXT DRO >C28-C36	56.7	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 121 % 37.6-147

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Analytical Results For:

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Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-3 6" (H803584-07)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	4.35	0.500	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	69.3	0.500	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	24.8	0.500	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	137	1.50	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	235	3.00	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92	

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*	3470	10.0	12/07/2018	ND	198	99.0	200	6.17		
DRO >C10-C28*	9010	10.0	12/07/2018	ND	208	104	200	4.29		
EXT DRO >C28-C36	1130	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 155 % 41-142

Surrogate: 1-Chlorooctadecane 338 % 37.6-147

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Analytical Results For:

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 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-3 1' (H803584-08)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	0.179	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	0.134	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	0.689	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	1.00	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	15.2	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	577	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	129	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 135 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-4 6" (H803584-09)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	198	99.0	200	6.17		
DRO >C10-C28*	53.9	10.0	12/07/2018	ND	208	104	200	4.29		
EXT DRO >C28-C36	14.9	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 120 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: V-4 1' (H803584-10)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	0.125	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	0.861	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	0.986	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	51.4	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	1100	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	230	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 140 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: WH-1 6" (H803584-11)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	<0.300	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	27.6	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	12.6	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 119 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: WH-1 18" (H803584-12)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	<0.300	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	198	99.0	200	6.17	
DRO >C10-C28*	12.7	10.0	12/07/2018	ND	208	104	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 122 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: WH-2 6" (H803584-13)

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	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	0.144	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	<0.300	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85	
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216	
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 91.4 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Analytical Results For:

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 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: WH-2 18" (H803584-14)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-1 6" (H803584-15)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 87.3 % 41-142
Surrogate: 1-Chlorooctadecane 85.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-1 18" (H803584-16)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 93.9 % 41-142

Surrogate: 1-Chlorooctadecane 92.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-2 6" (H803584-17)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	49.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 95.5 % 41-142

Surrogate: 1-Chlorooctadecane 97.1 % 37.6-147

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Analytical Results For:

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 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-2 18" (H803584-18)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119	
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275	
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408	
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259	
Total BTEX	<0.300	0.300	12/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85	
DRO >C10-C28*	199	10.0	12/07/2018	ND	213	106	200	0.216	
EXT DRO >C28-C36	16.9	10.0	12/07/2018	ND					

Surrogate: 1-Chlorooctane 94.7 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-3 2' (H803584-19)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 94.0 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: NH-3 4' (H803584-20)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 94.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: EH-1 6" (H803584-21)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 93.0 % 41-142

Surrogate: 1-Chlorooctadecane 90.9 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: EH-1 18" (H803584-22)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-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	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 91.4 % 41-142

Surrogate: 1-Chlorooctadecane 88.6 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
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 P. O. BOX 1226
 JAL NM, 88252
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Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: EH-2 6" (H803584-23)

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	12/07/2018	ND	2.06	103	2.00	0.119		
Toluene*	<0.050	0.050	12/07/2018	ND	2.04	102	2.00	0.275		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.95	97.4	2.00	0.408		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	6.20	103	6.00	0.259		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/11/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 75.9 % 41-142

Surrogate: 1-Chlorooctadecane 72.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: EH-2 18" (H803584-24)

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	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 93.3 % 41-142

Surrogate: 1-Chlorooctadecane 90.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-1 6" (H803584-25)

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	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 94.6 % 41-142

Surrogate: 1-Chlorooctadecane 90.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-1 18" (H803584-26)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 93.2 % 41-142

Surrogate: 1-Chlorooctadecane 90.1 % 37.6-147

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Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-2 6" (H803584-27)

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	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	181	90.7	200	1.85		
DRO >C10-C28*	<10.0	10.0	12/07/2018	ND	213	106	200	0.216		
EXT DRO >C28-C36	<10.0	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 90.6 % 41-142

Surrogate: 1-Chlorooctadecane 88.9 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-2 18" (H803584-28)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/10/2018	ND	197	98.4	200	2.38		
DRO >C10-C28*	<10.0	10.0	12/10/2018	ND	206	103	200	4.30		
EXT DRO >C28-C36	<10.0	10.0	12/10/2018	ND						

Surrogate: 1-Chlorooctane 99.7 % 41-142

Surrogate: 1-Chlorooctadecane 115 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-3 6" (H803584-29)

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	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

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	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	197	98.4	200	2.38		
DRO >C10-C28*	332	10.0	12/07/2018	ND	206	103	200	4.30		
EXT DRO >C28-C36	40.7	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 94.9 % 41-142

Surrogate: 1-Chlorooctadecane 120 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 DEAN ERICSON
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

Received:	12/05/2018	Sampling Date:	12/04/2018
Reported:	12/11/2018	Sampling Type:	Soil
Project Name:	CAL - B	Sampling Condition:	Cool & Intact
Project Number:	32.064329/-103.725630	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: SH-3 18" (H803584-30)

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	12/07/2018	ND	2.01	100	2.00	3.72		
Toluene*	<0.050	0.050	12/07/2018	ND	1.98	99.0	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/07/2018	ND	1.93	96.6	2.00	5.93		
Total Xylenes*	<0.150	0.150	12/07/2018	ND	5.68	94.7	6.00	5.83		
Total BTEX	<0.300	0.300	12/07/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	12/11/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/07/2018	ND	197	98.4	200	2.38		
DRO >C10-C28*	101	10.0	12/07/2018	ND	206	103	200	4.30		
EXT DRO >C28-C36	13.6	10.0	12/07/2018	ND						

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 118 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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



Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: ETE P.O. #:
 Project Manager: Don Erickson Company:
 Address: State: Zip: Attn:
 City: Address:
 Phone #: Fax #: City:
 Project #: Project Owner: State: Zip:
 Project Name: Ca-1-B Phone #:
 Project Location: 32.064329 -103.725630 Fax #:
 Sampler Name: File P.8.900000

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TAP	CL	BTEX	HOLD ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:						
<u>HR03584</u>															
<u>01</u>	<u>V-1</u>	<u>4'</u>								<u>12-4-18</u>	<u>10:01 AM</u>	X			
<u>02</u>	<u>V-1</u>	<u>8'</u>										X			
<u>03</u>	<u>V-1</u>	<u>8.5'</u>										X			
<u>04</u>	<u>V-1</u>	<u>9'</u>										X			
<u>05</u>	<u>V-2</u>	<u>6"</u>											X		
<u>06</u>	<u>V-2</u>	<u>18"</u>												X	
<u>07</u>	<u>V-3</u>	<u>6"</u>													X
<u>08</u>	<u>V-3</u>	<u>1'</u>													
<u>09</u>	<u>V-4</u>	<u>6"</u>													
<u>10</u>	<u>V-4</u>	<u>1'</u>													

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Relinquished By: [Signature] Date: 12/5/18 Received By: [Signature] Date: 12/10
 Relinquished By: Time: 12:10 Received By: Time: 11:41

Delivered By: (Circle One) UPS 5:30c Sample Condition: Intact Cool Yes No Intact Yes No Intact Yes No Intact Yes No
 Checked By: (Initials) col #97

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: ETC
 Project Manager: Dean Ericson
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____
 Project #: _____ Project Owner: _____
 Project Name: Cal-B
 Project Location: 32.064329 -103.725636
 Sampler Name: Tyler R. Brown
 P.O. #: _____ Company: _____
 Attn: _____ Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPT	BTCT	CL
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
<u>H203584-</u>															
11	WH-1	6"									12/4/18	12:05PM			
12	WH-1	18"													
13	WH-2	6"													
14	WH-2	18"													
15	WH-1	6"													
16	WH-1	18"													
17	WH-2	6"													
18	WH-2	18"													
19	WH-3	2'													
20	WH-3	4'													

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Relinquished By: _____
 Date: 12/5/18
 Time: 16:10
 Received By: [Signature]
 Date: _____
 Time: _____

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS: NM

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: S.30c
 Sample Condition
 Cool Intact
 Yes No
 Checked By: [Signature]
 (Initials) col #97

+ Cardinal cannot accept verbal change. Please fax written change to (575) 393-2326

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: ETC
 Project Manager: Devin Ertson
 Address: _____
 City: _____ State: _____ Zip: _____
 P.O. #: _____ Company: _____
 Attn: _____
 Phone #: _____ Fax #: _____
 Project #: _____ Project Owner: _____
 Project Name: Cal-B
 Project Location: 32.064329 -103.725630
 City: _____ State: _____ Zip: _____
 Sampler Name: Tyler R Brown
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	CL	T&H	BTEX
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
<u>H803584-</u>														
21	EH-1	6"							12/4/18	2:31 PM				
22	EH-1	18"								2:49				
23	EH-2	6"								3:04				
24	EH-2	18"								3:19				
25	EH-3	6"								3:31				
26	EH-3	18"								3:42				
2527	SH-1	6"								3:59				NO sample
2628	SH-1	18"								4:08				NO sample
2729	SH-2	6"								4:24				
2830	SH-2	18"								4:39				

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Relinquished By: _____
 Date: 12/18/18
 Time: 16:10
 Received By: [Signature]
 Date: _____
 Time: _____

Sample Condition:
 Intact
 Cool
 Yes
 No
 No
 No
 CHECKED BY: CA#97
 Phone Result: Yes No
 Fax Result: Yes No
 Add'l Phone #: _____
 Add'l Fax #: _____
 REMARKS: NW

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: 5:30
 + Cardinal cannot accept verbal change. Please fax written change to (575) 393-2326

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: ETC
 Project Manager: Devin Ericson
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____
 Project #: _____ Project Owner: _____
 Project Name: Cal-B
 Project Location: 32.064329 -103.725630
 Sampler Name: Tyler R Brown
 P.O. #: _____ Company: _____
 Attn: _____ Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	CL	BTex	TPT
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:					
<u>H203584</u>															
<u>2934</u>	<u>SH-3</u>	<u>6"</u>	<u>1</u>							<u>12/4/18</u>	<u>5:04 PM</u>	<u>1</u>	<u>1</u>	<u>1</u>	
<u>3032</u>	<u>SH-3</u>	<u>18"</u>	<u>1</u>												

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Relinquished By: 

Date: 12/5/18
 Time: 16:10

Received By: 

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS: mm

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: 5:30c
 Sample Condition: Cool Intact
 Yes No Yes No
 CHECKED BY: col #197

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



January 22, 2019

JOEL LOWRY
ENERGY TRANSFER
P. O. BOX 1226
JAL, NM 88252

RE: CAL - B

Enclosed are the results of analyses for samples received by the laboratory on 01/17/19 15:45.

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_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 JOEL LOWRY
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

 Received: 01/17/2019
 Reported: 01/22/2019
 Project Name: CAL - B
 Project Number: PIPELINE
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V-2 A @ 24" (H900172-01)

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	374	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	50.8	10.0	01/21/2019	ND					
<hr/>									
Surrogate: 1-Chlorooctane	91.5 %	41-142							
Surrogate: 1-Chlorooctadecane	99.3 %	37.6-147							

Sample ID: V-3 A @ 18" (H900172-02)

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	18.7	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	10.0	10.0	01/21/2019	ND					
<hr/>									
Surrogate: 1-Chlorooctane	103 %	41-142							
Surrogate: 1-Chlorooctadecane	95.3 %	37.6-147							

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 JOEL LOWRY
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

 Received: 01/17/2019
 Reported: 01/22/2019
 Project Name: CAL - B
 Project Number: PIPELINE
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V-4 A @ 18" (H900172-03)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	74.8	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	11.2	10.0	01/21/2019	ND					
<hr/>									
Surrogate: 1-Chlorooctane	88.9 %	41-142							
Surrogate: 1-Chlorooctadecane	90.7 %	37.6-147							

Sample ID: NH--2 A @ 24" (H900172-04)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					
<hr/>									
Surrogate: 1-Chlorooctane	95.3 %	41-142							
Surrogate: 1-Chlorooctadecane	89.2 %	37.6-147							

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 JOEL LOWRY
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

 Received: 01/17/2019
 Reported: 01/22/2019
 Project Name: CAL - B
 Project Number: PIPELINE
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: NH--2 B @ 6" (H900172-05)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>97.3 %</i>	<i>41-142</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>92.1 %</i>	<i>37.6-147</i>						

Sample ID: NH--2 B @ 18" (H900172-06)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>96.4 %</i>	<i>41-142</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>92.4 %</i>	<i>37.6-147</i>						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 JOEL LOWRY
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

 Received: 01/17/2019
 Reported: 01/22/2019
 Project Name: CAL - B
 Project Number: PIPELINE
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SH--3 A @ 24" (H900172-07)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>91.5 %</i>	<i>41-142</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>91.4 %</i>	<i>37.6-147</i>						

Sample ID: SH--3 B @ 6" (H900172-08)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>91.0 %</i>	<i>41-142</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>93.7 %</i>	<i>37.6-147</i>						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 ENERGY TRANSFER
 JOEL LOWRY
 P. O. BOX 1226
 JAL NM, 88252
 Fax To:

 Received: 01/17/2019
 Reported: 01/22/2019
 Project Name: CAL - B
 Project Number: PIPELINE
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SH--3 B @ 18" (H900172-09)
TPH 8015M
mg/kg
Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2019	ND	221	111	200	1.46	
DRO >C10-C28*	<10.0	10.0	01/21/2019	ND	214	107	200	0.961	
EXT DRO >C28-C36	<10.0	10.0	01/21/2019	ND					

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 95.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager

ATTACHMENT #7
Photographic Log

PHOTOGRAPHIC LOG



Figure 1 View of surface staining from the initial release and sample location, facing West.



Figure 2 View of surface staining from the initial release and sample location, facing West.

PHOTOGRAPHIC LOG



Figure 3 View of surface staining from the initial release and sample location, facing East.



Figure 4 View of surface staining from the initial release and sample location, facing North.

PHOTOGRAPHIC LOG



Figure 5 View of surface staining from the initial release and sample location, facing South.



Figure 6 View of surface staining from the initial release, hydrovac activities and sample location, facing South.

PHOTOGRAPHIC LOG



Figure 7 View of soil sample collection activities.

PHOTOGRAPHIC LOG

Verizon

2:18 PM

20%

[Back](#)

Carlsbad
December 4, 2018 12:20 PM

[Edit](#)



Figure 8 View of soil sample collection activities.

ATTACHMENT #8
Release Notification (FORM C-141)

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	0 NAB1834730382
District RP	0 2RP-5103
Facility ID	0 fAB1834729696
Application ID	0 pAB1834729291

Release Notification Responsible Party

Responsible Party	ETC Texas Pipeline, Ltd.	OGRID	371183
Contact Name	Carolyn Blackaller	Contact Telephone	817-302-9766
Contact Email	carolyn.blackaller@energytransfer.c Incident # (assigned by OCD)		0
Contact Mailing Address	600 N. Marienfeld. St., Suite 700, Midland, TX 79701		

Location of Release Source

Latitude 32.0647 Longitude -103.7254
(Nad 83 in decimal degrees to 5 decimal places)

Site Name	Cal B	Site Type	Pipeline
Date Release Discovered	11/22/18	API# (if applicable)	NA

Unit Letter	Section	Township	Range	County
A	12	T26S	R31E	Eddy

Surface Owner: State Federal Tribal Private (Name N/A)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 25.3 bbl	Volume Recovered (bbls) 0 bbl
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 25.563 Mscf	Volume Recovered (Mcf) None
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was attributed to the failure of a segment of buried natural gas pipeline as a result of corrosion.

Incident ID	0	NAB1834730382
District RP	0	2RP-5103
Facility ID	0	fAB1834729696
Application ID	0	pAB1834729291

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Unauthorized release of a volume of liquids exceeding 25 bbls.
---	--

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means? (phone, email, etc)?
 Dean Ericson, Mike Bratcher, 11/22/2018 @ 15:31 MST, Phone/email

Initial Response

The responsible party must undertake the following actions immediately 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 and the environment.
- Release 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 and managed appropriately.

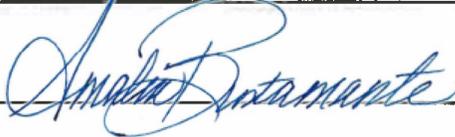
If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11 (A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: <u>Carolyn Blackaller</u>	Title: <u>Sr. Environmental Specialist</u>
Signature: <u></u>	Date: <u>12/6/2018</u>
email: <u>carolyn.blackaller@energytransfer.com</u>	Telephone: <u>817-302-9766</u>

OCD Only

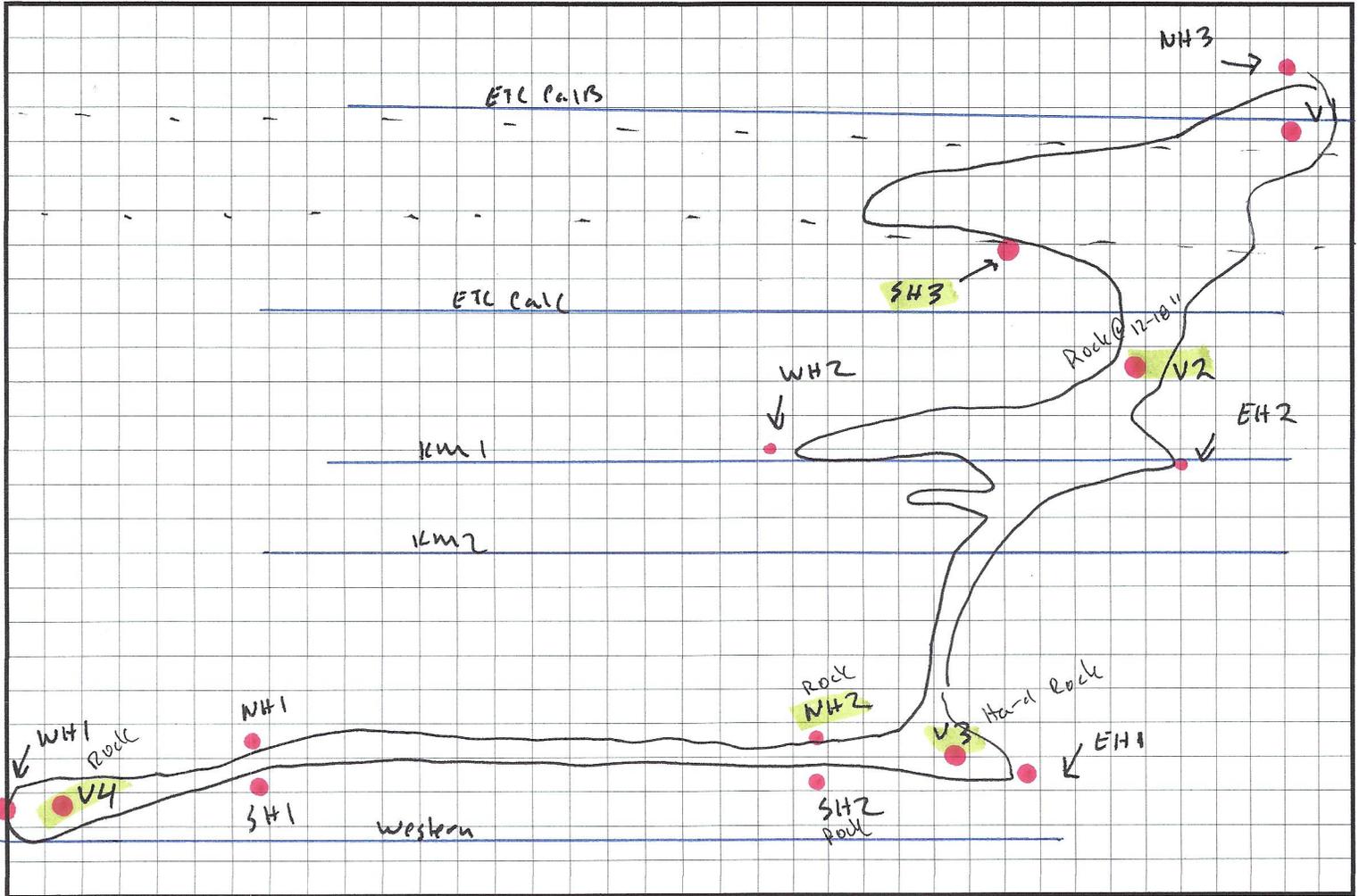
Received by: <u></u>	Date: <u>12/13/2018</u>
---	-------------------------

ATTACHMENT #9
Field Data

FIELD NOTES

Site Name: Cal B

Date: 12/4/2018



Horizontal : Vertical Relocation. 4-Verticals

Field Screen w/ PZP

Hard Rock in Flowpath, Could not go past 12"-18" w/ Buchhoe

Field ID	Odor/PID	Chloride
V-1@4'	673	<120
V-1@8'	29.1	—
V-1@8.5'	16.1	—
V-1@9'	7.5	—
V-2@6"	854	—

Field ID	Odor/PID	Chloride
WH-1@6"	0.7	—
WH-1@18"	0.8	—
WH-2@6"	9.9	—
WH-2@18"	15.7	—
NH-1@6"	2.6	—

Field ID	Odor/PID	Chloride
EH-1@6"	1.4	—
EH-1@18"	3.0	—
EH-2@6"	1.8	—
EH-2@18"	7.6	—
SH-1@6"	0.7	—

Field ID	Odor/PID	Chloride
V-2@18"	110.0	—
V-3@6"	117	—
V-3@1'	524	—
V-4@6"	564	—
V-4@1'	157	—

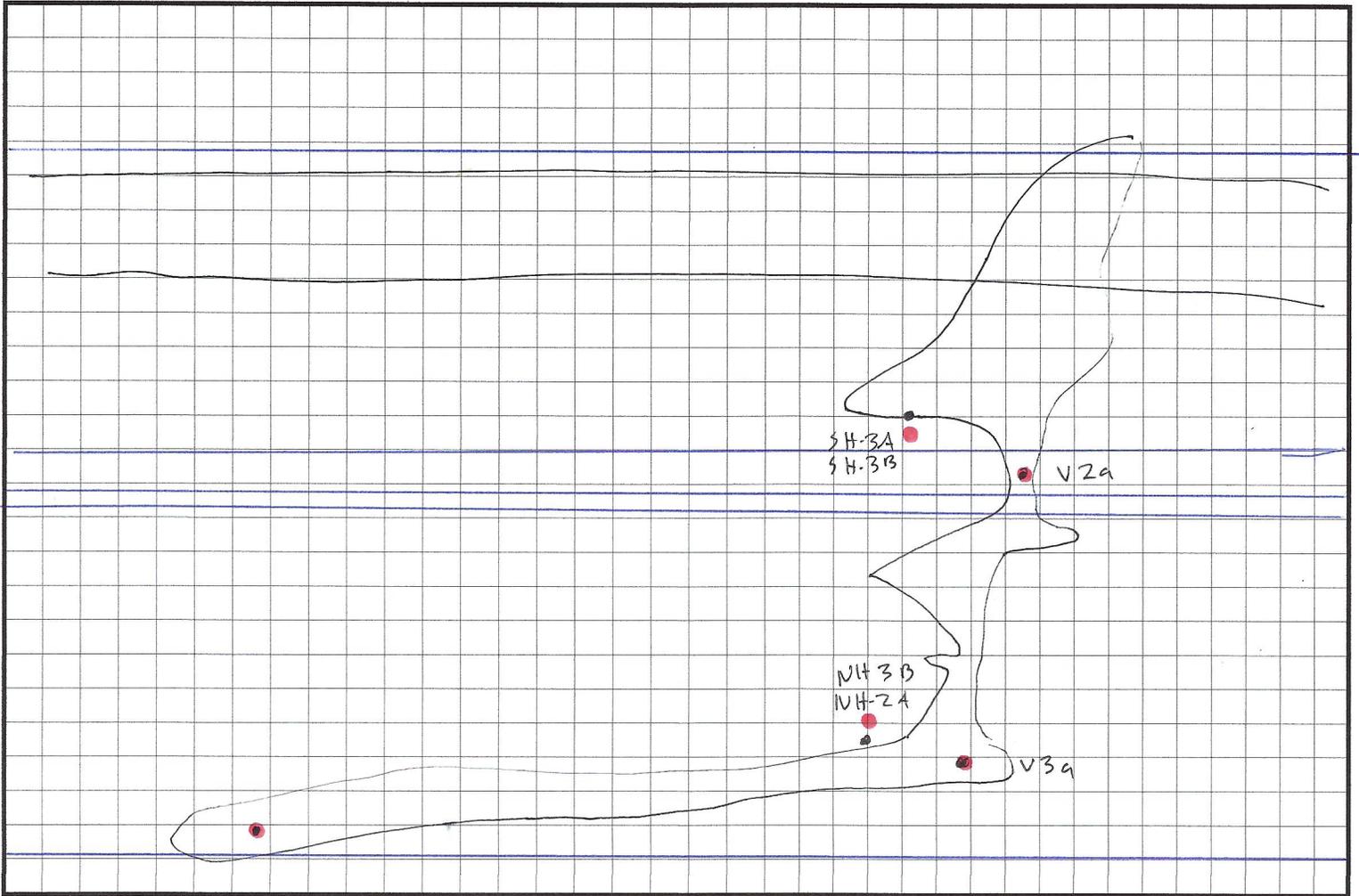
Field ID	Odor/PID	Chloride
NH-1@18"	4.4	—
NH-2@6"	1.6	—
NH-2@18"	4	—
NH-3@4'	159	—
NH-3@2'	162	—

Field ID	Odor/PID	Chloride
SH-1@18"	1.7	—
SH-2@6"	0.5	—
SH-2@18"	2.3	—
SH-3@6"	12.8	—
SH-3@18"	9.0	—

FIELD NOTES

Site Name: Cal B

Date: 1/16/19



Revisit Release Site w/ Masonry Drill
 Collect Addition Horizontal Delineation Samples
 Use Drill to Collect Additional Samples

Field ID	Odor/PID	Chloride
V-2A @ 24"	Light	
V-3A @ 10"	Light	
V-4A @ 18"	Light	

Field ID	Odor/PID	Chloride
NH-2A @ 24"	None	
NH-2B @ 6"	None	
NH-2B @ 18"	None	

Field ID	Odor/PID	Chloride
SH-3A @ 24"	None	
SH-3B @ 6"	None	
SH-3B @ 18"	None	

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride