Incident ID	NCH1831954977
District RP	1RP-5265
Facility ID	fCH1831949029
Application ID	pCH1831956246

January 4, 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: 2B Pipeline
GPS: Latitude: 32.16947 Longitude: -103.20493
Legals: UL "N", Sec. 31, T24S, R37E
Lea County, New Mexico
NMOCD Ref. No. 1RP-5265

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 2B Pipeline. Details of the release are summarized on the table below:

Nature and Volume of Release			
Date Release Discovered	10/26/2018	**Source of Release**	Pipeline
Type of Release	Produced Water, Condensate & Natural Gas	**Volume Released**	27.54 bbls PW, 3.06 bbls Condensate 187.597 McF Gas
		Volume Recovered	None
Cause of Release The release was attributed to a crack in the 4-inch poly pipeline.			
Affected Area Fluid from the release mixed with rainwater and affected an area measuring approximately 7,500 sq. ft. within the pipeline right-of-way. Overspray from the release affected an area within the adjacent pasture measuring approximately 5,000 sq. ft.			
Was this a major release? Yes	**If YES, for what reasons (s) is this considered 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? No, Immediate notice was not given due to excessive rainfall at the release site, which hindered the determination of approximately how much liquid was released.			

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?	50-100 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 (CP00549) within 1,000 ft. of the site. A field survey indicated available geographic information for CP00549 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	**10000 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 **November 2, 2018,** three (3) soil samples (V1 1", V2 6", V3 8" and V4 1') were collected from the affected area in an effort to characterize impacts from the release. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of BTEX, TPH and chloride. 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 V1 1", which exhibited a combined GRO and DRO concentration of 12,668 mg/kg and a TPH concentration of 14,898 mg/kg.

On **December 12, 2018,** LEA conducted an initial site assessment. During the initial site assessment, ten (10) soil samples (NH-1 @ 6", NH-1 @ 2', WH-1 @ 6", WH-1 @ 2', SH-1 @ 6", SH-1 @ 2', EH-1 @ 6", EH-1 @ 2', EH-2 @ 6" and EH-2 @ 2') were collected from the inferred edges of the affected area in an effort to determine the horizontal extent of soil impact. In addition, one (1) soil sample (V-1b @ 4'-R) was collected from beneath the release point in the area characterized by sample point V1. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

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

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.					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)
V1 1"	11/2/18	1"	In-Situ	<0.200	22.2	668	12,000	**12,668**	2,230	**14,898**	608
V2 6"	11/2/18	6"	In-Situ	<0.050	<0.300	<10.0	72.5	72.5	39.5	112	32.0
V3 8"	11/2/18	18"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V4 1'	11/2/18	1'	In-Situ	<0.050	<0.300	<10.0	778	778	185	963	32.0
NH-1 @ 6"	12/12/18	6"	In-Situ	<0.050	<0.300	<10.0	23.3	23.3	<10.0	23.3	32.0
NH-1 @ 2'	12/12/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH-1 @ 6"	12/12/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH-1 @ 2'	12/12/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SH-1 @ 6"	12/12/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SH-1 @ 2'	12/12/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
EH-1 @ 6"	12/12/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
EH-1 @ 2'	12/12/18	2'	In-Situ	<0.050	<0.300	<10.0	189	189	53.2	242	64.0
EH-2 @ 6"	12/12/18	6"	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
EH-2 @ 2'	12/12/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
V-1b @ 4'-R	12/12/18	4'	In-Situ	<0.050	0.364	12.4	204	216.4	15.8	232.2	16.0
Closure Criteria				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**10,000**

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 within the release margins affected above the NMOCD Closure Criteria.
•The floor of the excavation will be advanced to a depth of approximately 4 ft. bgs in the area characterized by sample points V1 and V-1b, 6 in. bgs in the area characterized by sample point V2, 8 in. bgs in the area characterized by sample point V3 or until laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria.
•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.
• Excavated soil will be temporarily stockpiled on-site, pending transportation under manifest to an NMOCD-approved disposal facility.
• Upon 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**. 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 **1,000 square feet**. Additional, "discrete" confirmation soil samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

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 **450 cubic yards** of soil has been affected above the NMOCD Closure Criteria.

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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

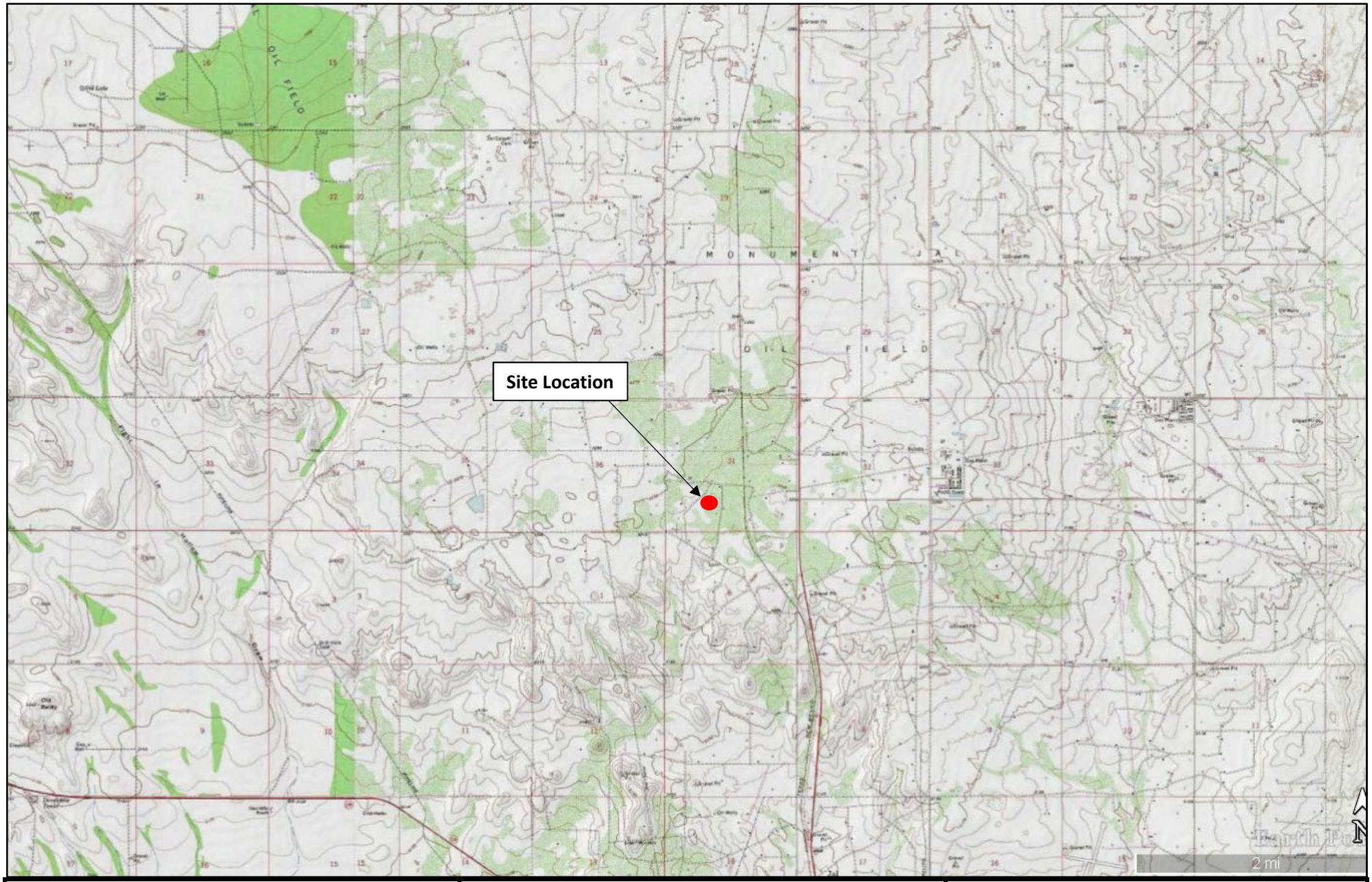
This document has been prepared on behalf of ETC Texas Pipeline, Ltd.. Use of information contained in this report, including exhibits and attachments, by any other party without the consent of LEA and/or ETC Texas Pipeline, Ltd. is prohibited.

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

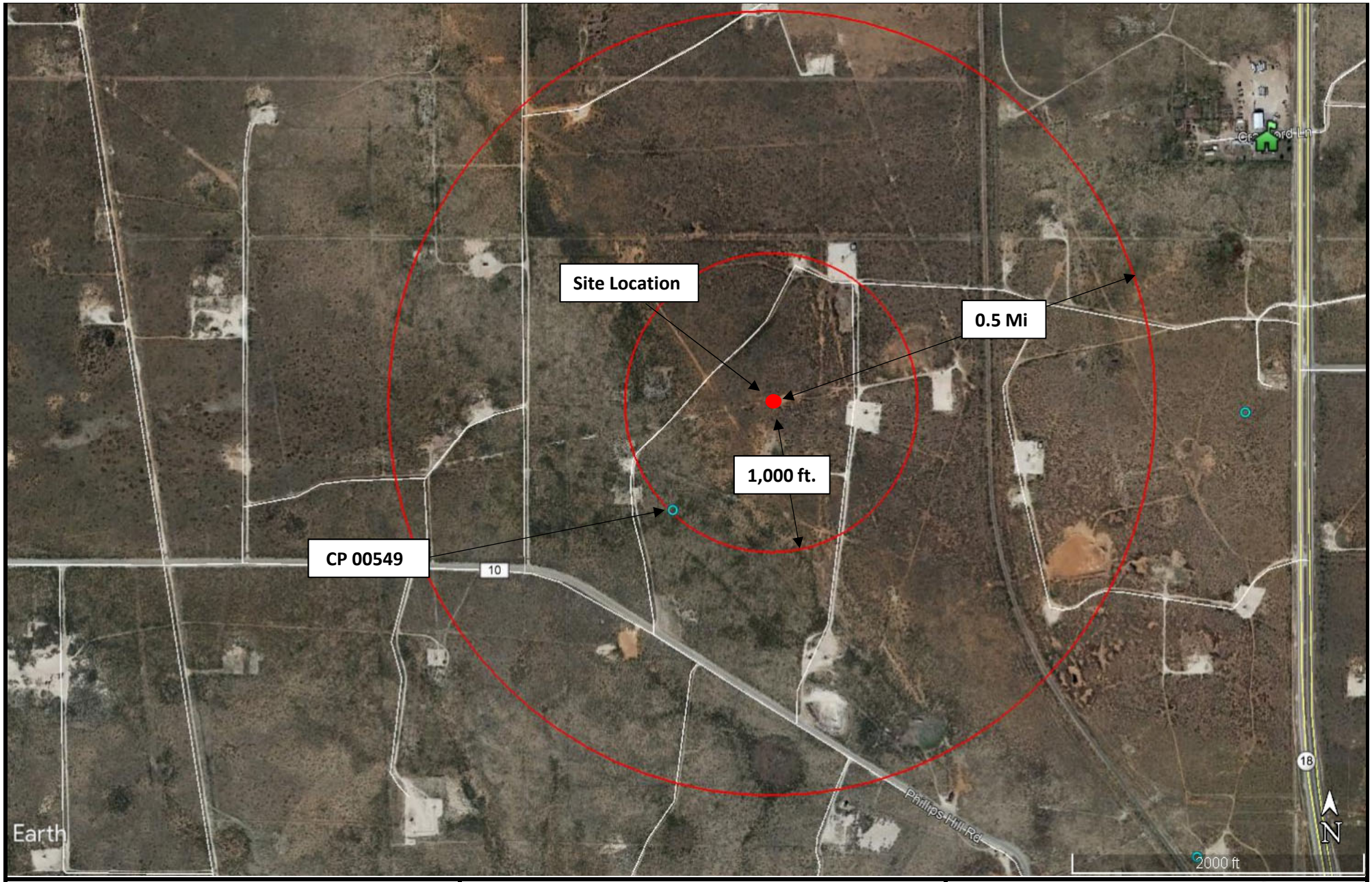
Figure 1
Topographic Map
ETC Texas Pipeline, Ltd.
2B Pipeline
GPS: 32.16947, -103.20493
Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 12/27/2018

ATTACHMENT #2

Figure 2 - Aerial Map



LEGEND:

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

Figure 2

Aerial Map

ETC Texas Pipeline, Ltd.

2B Pipeline

GPS: 32.16947, -103.20493

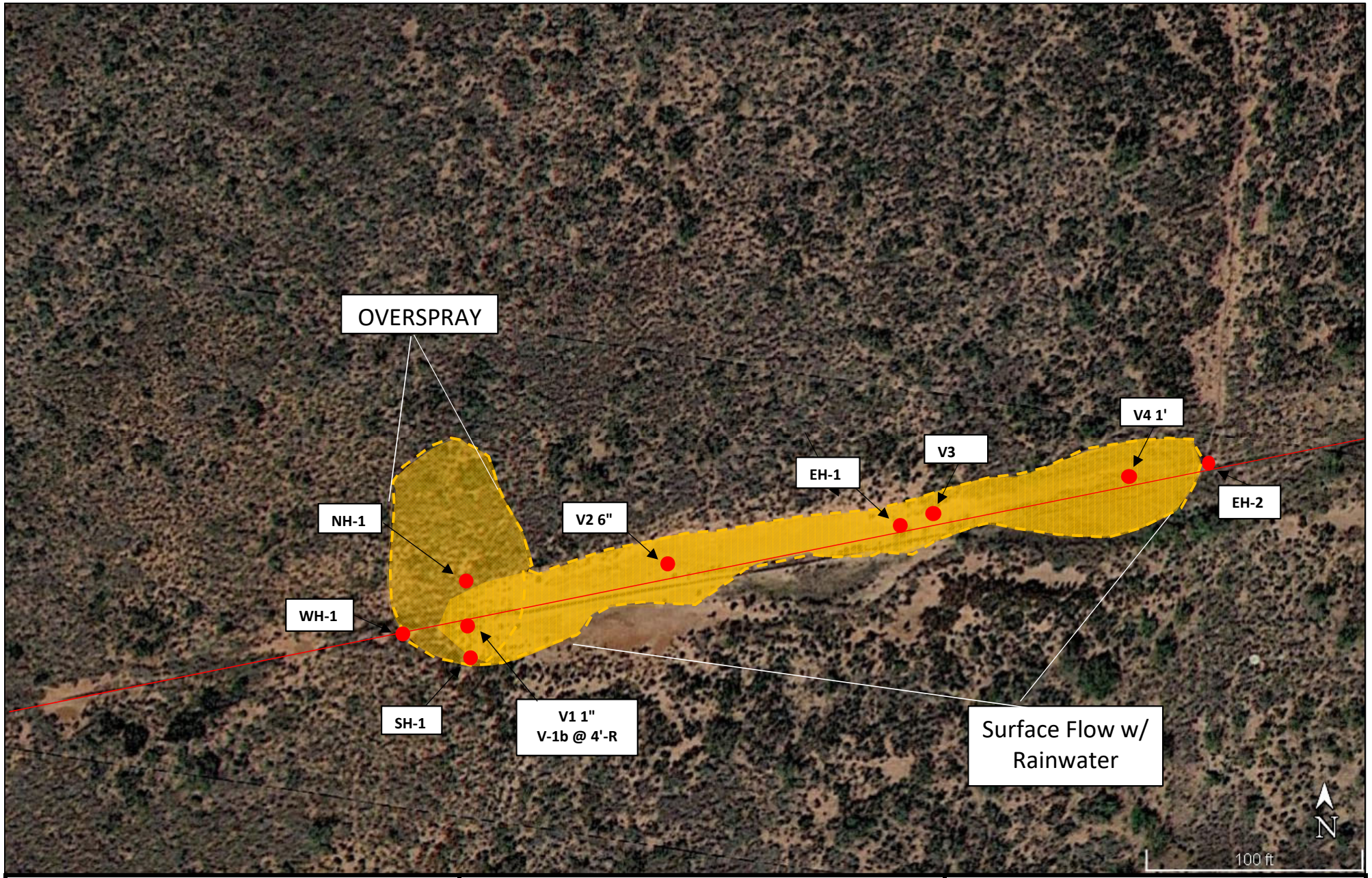
Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 12/27/2018

ATTACHMENT #3

Figure 3 - Site & Sample Location Map



LEGEND:

- Sample Point
- Affected Area
- Buried Pipeline

Figure 3

Site & Sample Location Map

ETC Texas Pipeline, Ltd.

2B Pipeline

GPS: 32.16947, -103.20493

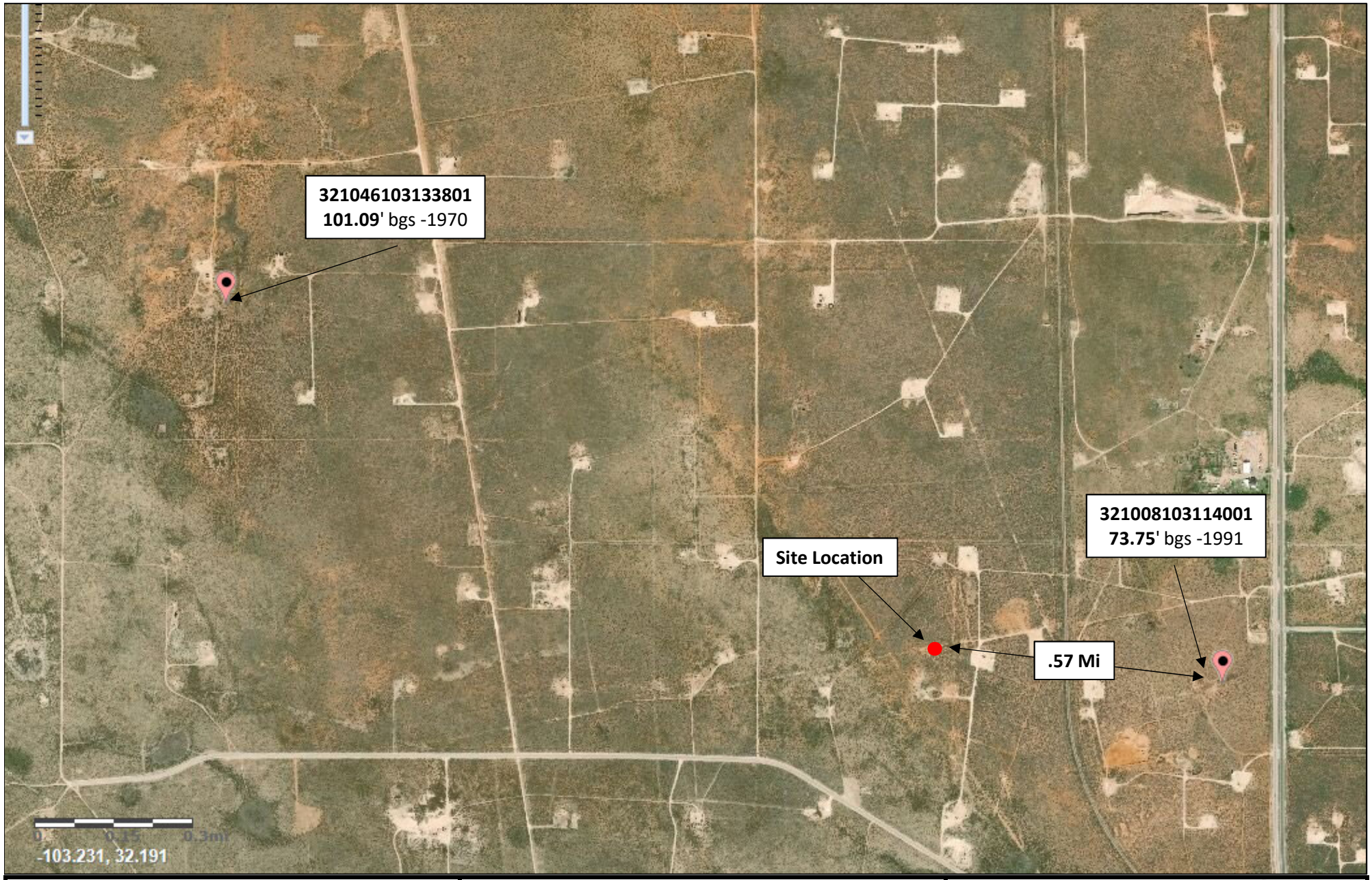
Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 1/4/2019

ATTACHMENT #4

Depth to Groundwater Information



LEGEND:

- Site Location

Figure 4

USGS Well Proximity Map

ETC Texas Pipeline, Ltd.

2B Pipeline

GPS: 32.16947, -103.20493

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 12/27/2018

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 64	Q 16	Q 4	Sec	Twn	Rng	X	Y		Distance	Depth Well	Depth Water	Water Column
CP 00549 POD1		CP	XX	4	3	3	31	24S	37E	669051	3560409*		301	200		
CP 00494 POD1		CP	LE	2	4	4	31	24S	37E	670239	3560628*		985	500		
CP 00846 POD1		CP	LE		4	2	06	25S	37E	670154	3559725*		1278	600		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 669253.4 **Northing (Y):** 3560632.3 **Radius:** 1608

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

National Water Information System: Web Interface

Click to hideNews Bulletins

- Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321008103114001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

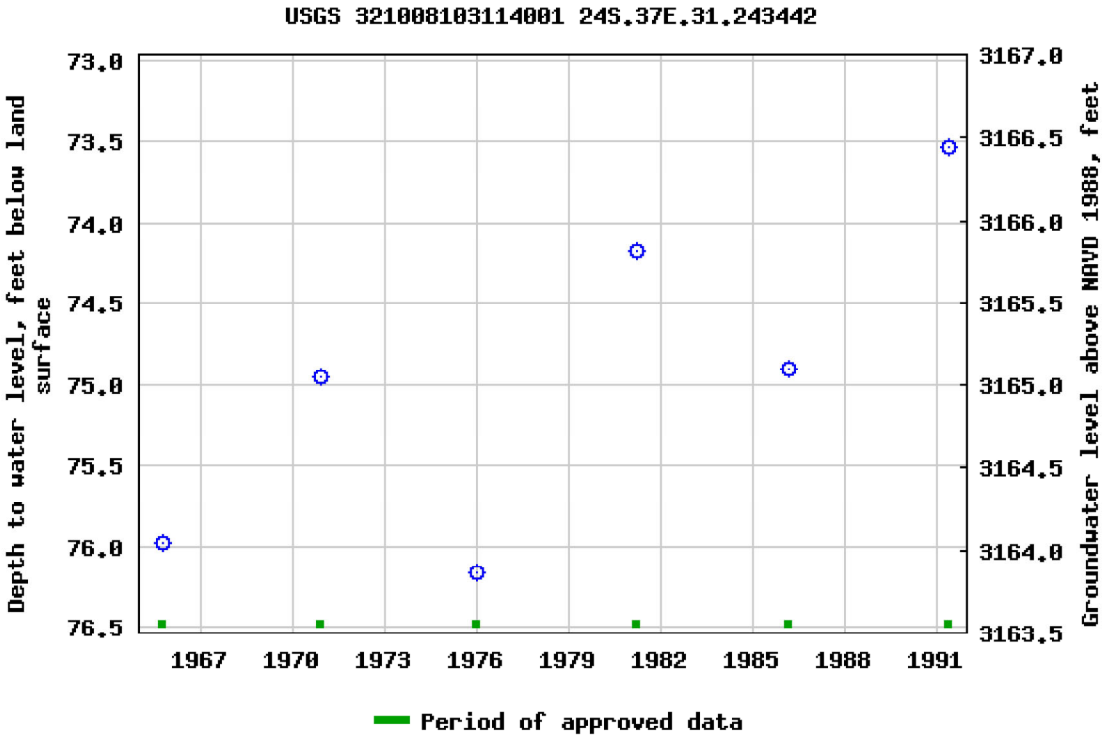
USGS 321008103114001 24S.37E.31.243442

Available data for this site Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°10'08", Longitude 103°11'40" NAD27
Land-surface elevation 3,240 feet above NAVD88
The depth of the well is 100 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
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U.S. Department of the Interior | U.S. Geological Survey

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: 2018-12-06 18:07:52 EST
1.07 0.98 nadww01

National Water Information System: Web Interface

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321046103133801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

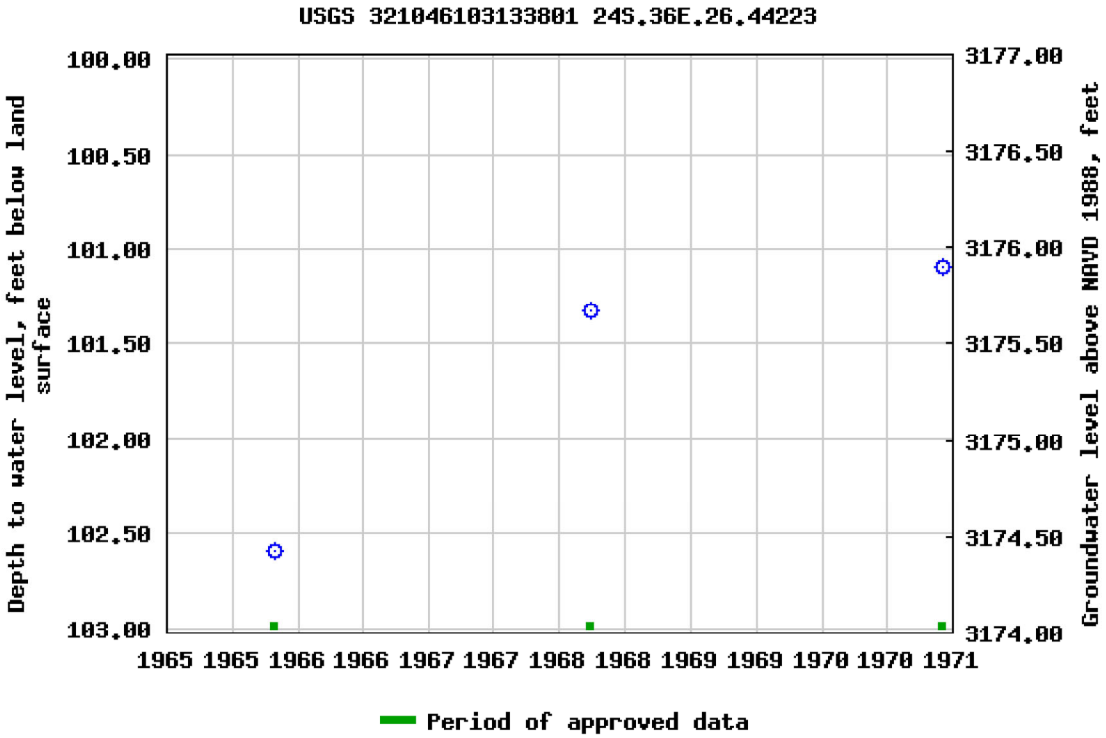
USGS 321046103133801 24S.36E.26.44223

Available data for this site Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°10'46", Longitude 103°13'38" NAD27
Land-surface elevation 3,277 feet above NAVD88
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

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

Accessibility Plug-Ins FOIA Privacy Policies and Notices

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

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: 2018-12-06 18:08:47 EST
1.64 0.98 nadww01

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00549 POD1	4	3	3	31	24S	37E	669051	3560409*

x

Driller License: 122 **Driller Company:** UNKNOWN

Driller Name: COLE DRILLING COMPANY

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 10.75 **Depth Well:** 200 feet **Depth Water:**

x

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

ATTACHMENT #5

Soil Profile

SOIL PROFILE

Site Name: 2B Pipeline

Date: 12/12/18

Description		Depth (ft. bgs)
		1
Red Sand		2
		3
	TD	4
Caliche / Rock		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

ATTACHMENT #6
Laboratory Analytical Reports

CARDINAL Laboratories

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

November 05, 2018

DEAN ERICSON

ENERGY TRANSFER

P. O. BOX 1226

JAL, NM 88252

RE: 2B

Enclosed are the results of analyses for samples received by the laboratory on 11/02/18 16:45.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/02/2018	Sampling Date:	11/02/2018
Reported:	11/05/2018	Sampling Type:	Soil
Project Name:	2B	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	32.16947		

Sample ID: V1 1" (H803159-01)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/05/2018	ND	2.47	124	2.00	1.90	
Toluene*	**0.872**	0.200	11/05/2018	ND	2.28	114	2.00	1.58	
Ethylbenzene*	**5.51**	0.200	11/05/2018	ND	2.17	109	2.00	1.79	
Total Xylenes*	**15.8**	0.600	11/05/2018	ND	6.67	111	6.00	0.628	
Total BTEX	**22.2**	1.20	11/05/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *134 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**608**	16.0	11/05/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS** **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**668**	50.0	11/03/2018	ND	218	109	200	8.04	
DRO >C10-C28*	**12000**	50.0	11/03/2018	ND	224	112	200	4.73	
EXT DRO >C28-C36	**2230**	50.0	11/03/2018	ND					

Surrogate: 1-Chlorooctane *139 %* *41-142*

Surrogate: 1-Chlorooctadecane *294 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/02/2018	Sampling Date:	11/02/2018
Reported:	11/05/2018	Sampling Type:	Soil
Project Name:	2B	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	32.16947		

Sample ID: V2 6" (H803159-02)

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	11/05/2018	ND	2.47	124	2.00	1.90	
Toluene*	<0.050	0.050	11/05/2018	ND	2.28	114	2.00	1.58	
Ethylbenzene*	<0.050	0.050	11/05/2018	ND	2.17	109	2.00	1.79	
Total Xylenes*	<0.150	0.150	11/05/2018	ND	6.67	111	6.00	0.628	
Total BTEX	<0.300	0.300	11/05/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.8-142*

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	11/05/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/03/2018	ND	218	109	200	8.04	
DRO >C10-C28*	**72.5**	10.0	11/03/2018	ND	224	112	200	4.73	
EXT DRO >C28-C36	**39.5**	10.0	11/03/2018	ND					

Surrogate: 1-Chlorooctane *104 %* *41-142*

Surrogate: 1-Chlorooctadecane *103 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/02/2018	Sampling Date:	11/02/2018
Reported:	11/05/2018	Sampling Type:	Soil
Project Name:	2B	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	32.16947		

Sample ID: V3 8" (H803159-03)

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	11/05/2018	ND	2.47	124	2.00	1.90	
Toluene*	<0.050	0.050	11/05/2018	ND	2.28	114	2.00	1.58	
Ethylbenzene*	<0.050	0.050	11/05/2018	ND	2.17	109	2.00	1.79	
Total Xylenes*	<0.150	0.150	11/05/2018	ND	6.67	111	6.00	0.628	
Total BTEX	<0.300	0.300	11/05/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.8-142*

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	11/05/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/03/2018	ND	218	109	200	8.04	
DRO >C10-C28*	<10.0	10.0	11/03/2018	ND	224	112	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	11/03/2018	ND					

Surrogate: 1-Chlorooctane *94.5 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/02/2018	Sampling Date:	11/02/2018
Reported:	11/05/2018	Sampling Type:	Soil
Project Name:	2B	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	32.16947		

Sample ID: V4 1' (H803159-04)

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	11/05/2018	ND	2.47	124	2.00	1.90	
Toluene*	<0.050	0.050	11/05/2018	ND	2.28	114	2.00	1.58	
Ethylbenzene*	<0.050	0.050	11/05/2018	ND	2.17	109	2.00	1.79	
Total Xylenes*	<0.150	0.150	11/05/2018	ND	6.67	111	6.00	0.628	
Total BTEX	<0.300	0.300	11/05/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

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	11/05/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/03/2018	ND	218	109	200	8.04	
DRO >C10-C28*	**778**	10.0	11/03/2018	ND	224	112	200	4.73	
EXT DRO >C28-C36	**185**	10.0	11/03/2018	ND					

Surrogate: 1-Chlorooctane *103 %* *41-142*

Surrogate: 1-Chlorooctadecane *134 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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.
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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	ETC
Project Manager:	Drew Ericson
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	2B
Project Location:	32.16947
Sampler Name:	Tyler Briones

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH Ext	CL	BTEX
H30315 9-																	
01	V1 1"												11/2/18	3:00pm			
02	V2 6"																
03	V3 8"																
04	V4 1'																

Relinquished By:	Date: 11/2/18	Received By:	
	Time: 4:45pm		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 18.1°C

Sample Condition: Cool ☐ Yes ☐ No ✓ | Intact ☑ Yes ☐ No

CHECKED BY: (Initials) Cole #97

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

NM Rush!!

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

CARDINAL Laboratories

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

December 13, 2018

JOEL LOWRY

ENERGY TRANSFER

P. O. BOX 1226

JAL, NM 88252

RE: 2B PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 12/12/18 15:35.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: NH - 1 @ 6" (H803639-01)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	12/13/2018	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/13/2018	ND	208	104	200	0.863	
DRO >C10-C28*	**23.3**	10.0	12/13/2018	ND	216	108	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/13/2018	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *132 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: NH - 1 @ 2' (H803639-02)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	**16.0**	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *93.5 %* *41-142*

Surrogate: 1-Chlorooctadecane *86.1 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: WH - 1 @ 6" (H803639-03)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	**16.0**	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *90.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *84.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: WH - 1 @ 2' (H803639-04)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	<16.0	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *95.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: SH - 1 @ 6'' (H803639-05)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	**16.0**	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *91.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.9 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: SH - 1 @ 2' (H803639-06)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	<16.0	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *86.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: EH - 1 @ 6" (H803639-07)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *89.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *87.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: EH - 1 @ 2' (H803639-08)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	**189**	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	**53.2**	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *89.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: EH - 2 @ 6" (H803639-09)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *88.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.9 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: EH - 2 @ 2' (H803639-10)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	<0.050	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	<0.300	0.300	12/13/2018	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	<16.0	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	<10.0	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *86.8 %* *41-142*

Surrogate: 1-Chlorooctadecane *87.5 %* *37.6-147*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/12/2018	Sampling Date:	12/12/2018
Reported:	12/13/2018	Sampling Type:	Soil
Project Name:	2B PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NM		

Sample ID: V 1B @ 4' R (H803639-11)

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	12/13/2018	ND	2.41	120	2.00	1.84	
Toluene*	<0.050	0.050	12/13/2018	ND	2.35	117	2.00	0.417	
Ethylbenzene*	**0.075**	0.050	12/13/2018	ND	2.29	114	2.00	1.52	
Total Xylenes*	**0.289**	0.150	12/13/2018	ND	6.93	116	6.00	1.77	
Total BTEX	**0.364**	0.300	12/13/2018	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	**16.0**	16.0	12/13/2018	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**12.4**	10.0	12/12/2018	ND	186	93.2	200	0.167	
DRO >C10-C28*	**204**	10.0	12/12/2018	ND	198	99.0	200	2.34	
EXT DRO >C28-C36	**15.8**	10.0	12/12/2018	ND					

Surrogate: 1-Chlorooctane *87.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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.
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

1 of 2

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	ETC Texas Pipeline, Ltd.	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	600 N. Marienfeld. St., Suite 700, Midland, TX 79701	**Company:**	ETC Texas Pipeline, Ltd.
City:	**State:** **Zip:**	**Attn:**	Dean Ericson
Phone #:	432-466-4450 **Fax #:**	**Address:**	
Project #:	**Project Owner:**	**City:**	
Project Name:	2B Pipeline	**State:** **Zip:**	
Project Location:	Lea County, New Mexico	**Phone #:**	
Sampler Name:	Joel Lowry	**Fax #:**	

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL- E 300	TDS TPH 8015 Mod Ext	BTEX 8021										
H803639																											
1	NH-1@6"	G	1			X					X		12/12/18 ~~12/18/18~~	9:10	X	X	X										
2	NH-1@2'												12/12/18	9:12	X	X	X										
3	WH-1@6"													9:28													
4	WH-1@2'													9:20													
5	SH-1@6"													9:31													
6	SH-1@2'													9:32													
7	EH-1@6"													9:45													
8	EH-1@2'													9:47													
9	EH-2@6"													9:54													
10	EH-2@2'													9:56													

Relinquished By:	**Date:** 12/12	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 3:35		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	**REMARKS:** ioel@lowrvenvironmental.com dean.ericson@energytransfer.com Rush!
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.4° #197	**Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)** JO	

FORM-006 R 2.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

2 of 2

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	ETC Texas Pipeline	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	600 N. Marienfield	**Company:**	ETC Texas Pipe
City:	Midland **State:** TX **Zip:**	**Attn:**	Dean Ericson
Phone #:	432-466-4450 **Fax #:**	**Address:**	
Project #:	**Project Owner:**	**City:**	
Project Name:	2B Pipeline	**State:**	**Zip:**
Project Location:	Lea Co, NM	**Phone #:**	
Sampler Name:	Joel Lowry	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	**DATE**	**TIME**	BTEX	TPH	Cl								
H803639																									
11	V16@4'-R	G	1			X					X		12/12	10:10	X	X	X								

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 12-12-18	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 15:35		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	REMARKS: Rush!
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.4° #97		**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO

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

ATTACHMENT #7
Photographic Log

PHOTOGRAPHIC LOG

Figure 1 View of surface staining from the initial release, facing Southwest.

Figure 2 View of sample location, facing North.

PHOTOGRAPHIC LOG

Figure 3 View of surface staining from the initial release, facing Southwest.

Figure 4 View of surface staining from the initial release, facing Southwest.

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	NCH1831954977
District RP	1RP-5265
Facility ID	fCH1831949029
Application ID	pCH1831956246

Release Notification

Responsible Party

Responsible Party: ETC Texas Pipeline, Ltd.	OGRID: 371183
Contact Name: Carolyn J. Blackaller	Contact Telephone: (817) 302-9766
Contact email: carolyn.blackaller@energytransfer.com	Incident # (NCH1831954977 ETC 2B PIPELINE @ FCH1831949029
Contact mailing address: 600 N. Marienfeld Street, Suite 700, Midland, TX 79701	

Location of Release Source

Latitude 32.16947 Longitude -103.20493
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: 2B	Site Type: Pipeline
Date Release Discovered: 10/26/2018	API# *(if applicable)*: N/A

Unit Letter	Section	Township	Range	County
N	31	T24S	R37E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: Jal Public Library Fund*)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): 27.54 bbls	Volume Recovered (bbls): 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☒ Condensate	Volume Released (bbls): 3.06 bbls	Volume Recovered (bbls): 0 bbls
☒ Natural Gas	Volume Released (Mcf): 187.597 Mcf	Volume Recovered (Mcf): 0 Mcf
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: On October 26, 2018, it was discovered that a crack in the poly line on a segment of the 2B 4-inch Pipeline in Lea County, NM was causing a leak of field gas, water, and condensate. A crew was dispatched to begin repairs to this segment. The poly was flanged back together and the leak of fluids and gas stopped. Given the amount of time it took to repair the leak, the leak hole size, and pipe pressure, it was calculated that approximately 187.597 Mcf of gas was released. Please find these calculations appended to this form. A survey of the water and condensate release showed that approximately 3.06 barrels of condensate and 27.54 barrels of water were released. Please find appended to this form photos from the release site.

State of New Mexico
Oil Conservation Division

Incident ID	NCH1831954977
District RP	1RP-5265
Facility ID	fCH1831949029
Application ID	pCH1831956246

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? 19.15.29.7(A)(1) classifies a major release as an unauthorized release of a volume of 25 barrels or more. The total volume of liquids released was approximately 30.6 barrels. The gas released is classified as a minor release.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was not given due to excessive rainfall at the release site, which hindered the determination of approximately how much liquid was released.

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.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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: ____Carolyn J. Blackaller_____Title: Sr. Environmental Specialist_____

Signature: Carolyn Blackaller Date: __11/08/2018_____

email: __carolyn.blackaller@energytransfer.com_____ Telephone: __(817) 302-9766_____

OCD Only

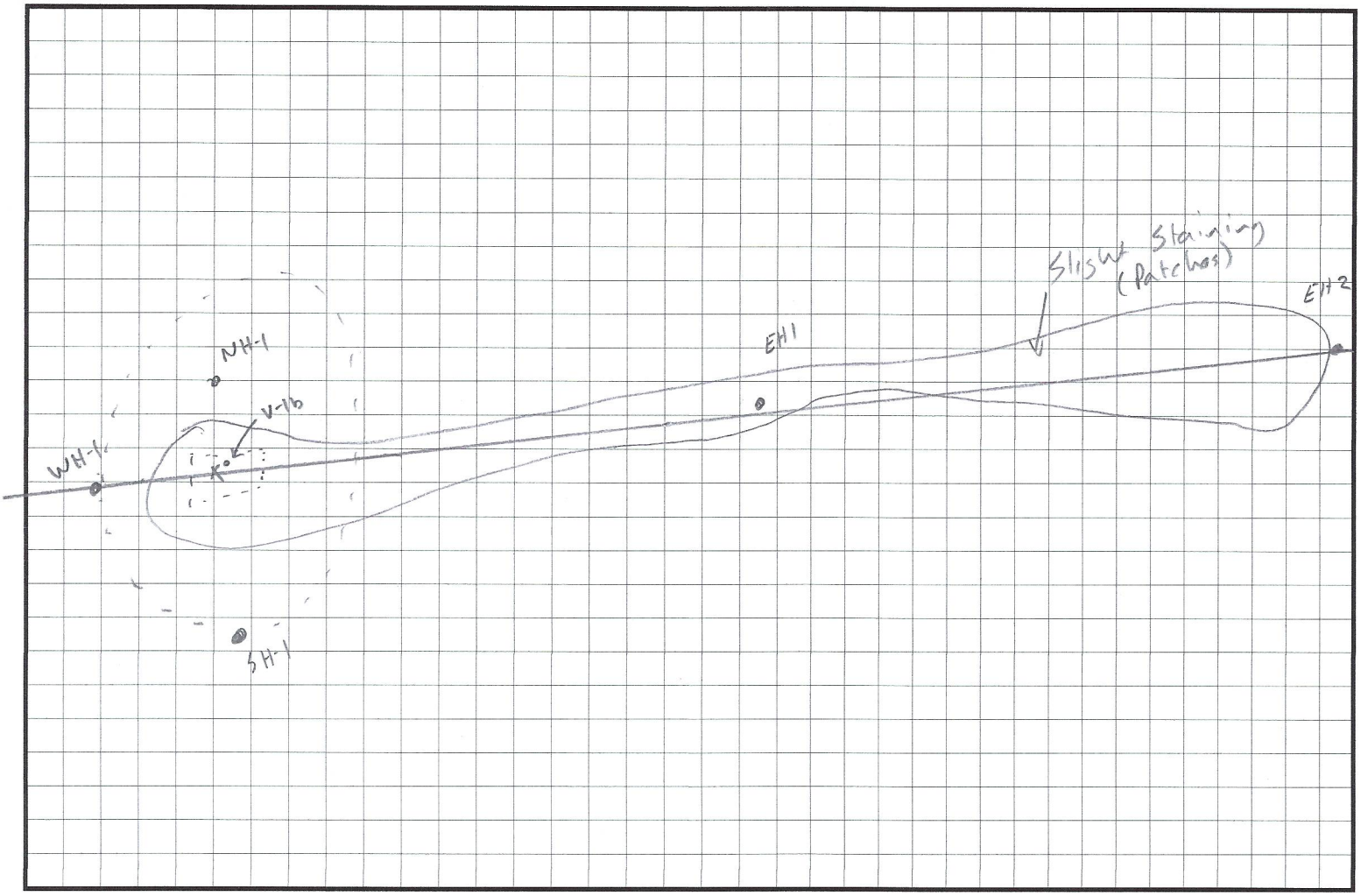
RECEIVED
By CHernandez at 3:36 pm, Nov 15, 2018

Received by: _____ Date: _____

ATTACHMENT #9
Field Data

FIELD NOTES

Site Name:_____ Date:_____



Impacts appear to be limit to surface in overspray area : flow path
Historical impacts from crude release (unremediated) present.
Hit Rock @ 4' bgs @ release point.

Field ID	Odor/PID	Chloride
V-1b@4'	Light	<120

Field ID	Odor/PID	Chloride
NH-1@6"	None	—
NH-1@2'	None	—

Field ID	Odor/PID	Chloride
WH-1@6"	None	—
WH-1@2'	None	—

Field ID	Odor/PID	Chloride
SH-1@6"	None	—
SH-1@2'	None	—

Field ID	Odor/PID	Chloride
EH-1@6"	None	—
EH-1@2'	Light	—
EH-2@6"	None	—
EH-2@2"	None	—

Field ID	Odor/PID	Chloride