State of New Mexico
Oil Conservation Division

Incident ID	nAPP2207347201
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☑ Detailed description of proposed remediation technique
- ☑ Scaled sitemap with GPS coordinates showing delineation points
- ☑ Estimated volume of material to be remediated
- ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☑ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☑ Extents of contamination must be fully delineated.

☑ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Camille Bryant Title: Remediation Supervisor

Signature: _____ Date: _____

email: cjbryant@paalp.com Telephone: (575) 441-1099

OCD Only

Received by: Jocelyn Harimon Date: 11/10/2022

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: Robert Hamlet Date: 2/1/2023

Incident ID	nAPP2207347201
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>66.5 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☑ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☑ Field data
- ☑ Data table of soil contaminant concentration data
- ☑ Depth to water determination
- ☑ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☑ Boring or excavation logs
- ☑ Photographs including date and GIS information
- ☑ Topographic/Aerial maps
- ☑ Laboratory data including chain of custody

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2207347201
District RP	
Facility ID	
Application ID	

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: Camille Bryant Title: Remediation Supervisor

Signature: Date:

email: cjbryant@paalp.com Telephone: (575) 441-1099

OCD Only

Received by: Jocelyn Harimon Date: 11/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2207347201
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Facility ID	
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Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☑ Detailed description of proposed remediation technique
- ☑ Scaled sitemap with GPS coordinates showing delineation points
- ☑ Estimated volume of material to be remediated
- ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☑ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☑ Extents of contamination must be fully delineated.

☑ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Camille Bryant Title: Remediation Supervisor

Signature: _____ Date: _____

email: cjbryant@paalp.com Telephone: (575) 441-1099

OCD Only

Received by: Jocelyn Harimon Date: 11/10/2022

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Remediation Summary and Deferral Request

Plains All American
Bonanza 22-15 Fed Com 1H
Eddy County, New Mexico
Unit Letter L, Section 22, Township 25 South, Range 28 East
Latitude 32.11293 North, Longitude 104.08073 West
NMOCD Reference No. nAPP2207347201

Prepared By:

Etech Environmental & Safety Solutions, Inc.
2617 W. Marland
Hobbs, New Mexico 88240

Matthew Grieco

Joel W. Lowry

Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Hobbs • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Plains All American, has prepared this *Remediation Summary and Deferral Request* for the release site known as the Bonanza 22-15 Fed Com 1H (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.11293 Longitude: -104.08073

Provided GPS are in WGS84 format.

Site Name:	Bonanza 22-15 Fed Com 1H	Site Type:	Tank Battery
Date Release Discovered:	3/12/2022	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
L	22	25S	28E	Eddy

Surface Owner: [ ] State [ ] Federal [ ] Tribal [X] Private (Name Devon Energy)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 9.6	Volume Recovered (bbls) 5
[ ] Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[ ] Yes [ ] No [X] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
Sump box on meter skid overflowed to failure of PRV.

Initial Response

- [X] The source of the release has been stopped.
- [X] The impacted area has been secured to protect human health and the environment.
- [X] Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- [X] All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. In addition, the New Mexico Oil Conservation Division (NMOCD) imaging database was searched for relevant well drilling logs. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

A review of the drilling log for NMOSE-permitted well C-01522, which is located approximately 2,810 feet north of the Site, indicates the well was drilled to approximately 150 feet below ground surface (bgs). Additionally, a review of the drilling log for Boring No. 4, a C-147 recycling facility geotechnical boring located approximately 1,703 feet northeast of the Site, indicates the well was drilled to approximately 66.5 feet bgs. No indications of inflow or accumulation of water were noted during the advancement of either well/investigative boring.

What is the shallowest depth to groundwater beneath the area affected by the release?	> 66.5 Feet
Did the release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production or storage site?	☐ Yes ☒ No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE, USGS, and NMOCD databases; and aerial imagery. The results are depicted on Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

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

Probable Depth to Groundwater	Constituent	Method	Closure Criteria	Reclamation Standard*
> 66.5 Feet	Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg	100 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg	-
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg	10 mg/kg

* The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas.

4.0 REMEDIATION ACTIVITIES SUMMARY

Excavation of impacted soil was completed by a third party contractor unassociated with Etech. In accordance with the NMOCD, impacted soil affected above the NMOCD Closure Criteria was excavated stockpiled on site pending transfer to an NMOCD-approved surface waste facility for disposal.

On March 3, 2022, Etech visited the Site to collect soil samples of and adjacent to the excavation. Etech collected eight (8) delineation soil samples (EH @ SURFACE, EH @ 1, NH @ SURFACE, NH @ 1, SH @ SURFACE, SH @ 1, WH @ SURFACE, and WH @ 1) and eight (8) confirmation soil samples (FL1 @ 3', FL2 @ 3', FL3 @ 3', FL4 @ 3', EW, NW, SW, and WW). The collected samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations below the NMOCD Closure Criteria in each of the submitted soil samples.

In addition, Etech collected eight (8) deferral soil samples (EDEF1 @ SURFACE, EDEF1 @ 4', NDEF1 @ SURFACE, NDEF1 @ 4', SDEF1 @ SURFACE, SDFE1 @ 4', WDEF1 @ SURFACE, and WDEF1 @ 4) to characterize the impacted soil remaining in-situ beneath the meter skid. The collected samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations below the NMOCD Closure Criteria in each of the submitted soil samples with the exception of the surface samples, which had TPH values ranging from 28,200 mg/kg in sample SDEF1 @ SURFACE to 32,500 mg/kg in sample NDEF1 @ SURFACE.

A site and sample location map is provided as Figure 3. A soil chemistry table is provided as Table 1. Field data and waste transport manifests are provided as Appendix B. Laboratory analytical reports are provided as Appendix C.

The final dimensions of the excavated area were 25 feet in length, 50 feet in width, and three (3) feet in depth. During the course of remediation activities, approximately 60 cubic yards of impacted soil was transported to an NMOCD-approved surface waste facility for disposal.

5.0 RESTORATION, RECLAMATION, AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable. Affected areas were entirely on the production pad and will not require reseeding.

6.0 DEFERRAL REQUEST

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria was excavated to the extent practicable and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria. Impacted soil affected above the NMOCD Closure Criteria beneath the meter skid characterized by deferral sample points EDEF1, NDEF1, SDEF1, and WDEF1 will be remediated upon decommissioning the facility.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Plains All American, provide copies of this *Remediation Summary and Deferral Request* to the appropriate agencies and request partial closure be granted to the Bonanza 22-15 Fed Com 1H Site.

7.0 LIMITATIONS

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

This report has been prepared for the benefit of Plains All American. Use of the information contained in this report is prohibited without the consent of Etech and/or Plains All American.

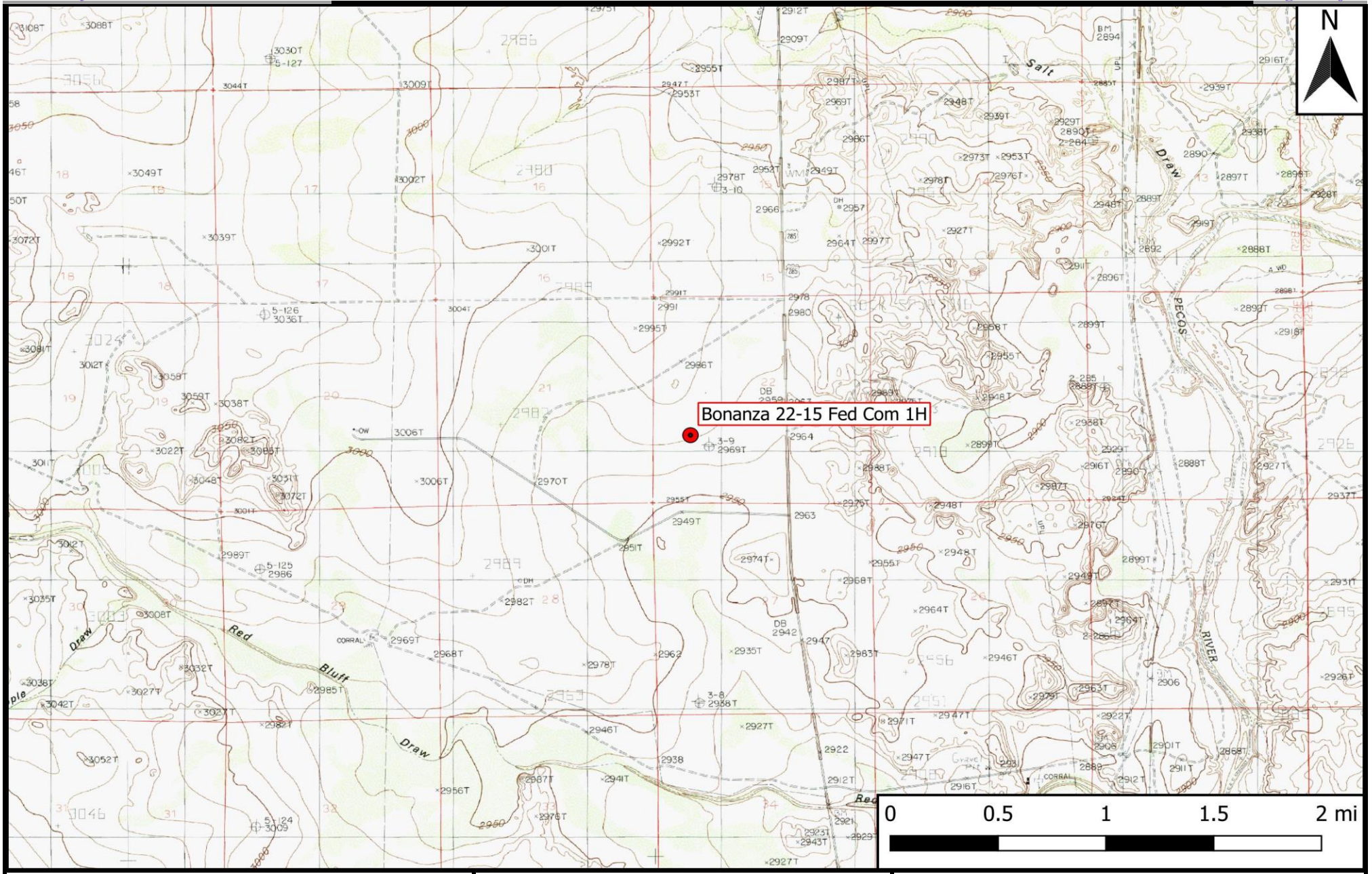
8.0 DISTRIBUTION

Plains All American
1106 Griffith Drive
Midland, Texas 79706

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

(Electronic Submission)

Figure 1
Topographic Map



Legend

- Site Location

Figure 1

Topographic Map

Plains All American

Bonanza 22-15 Fed Com 1H

GPS: 32.11293, -104.08073

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 3/15/22

Figure 2
Aerial Proximity Map

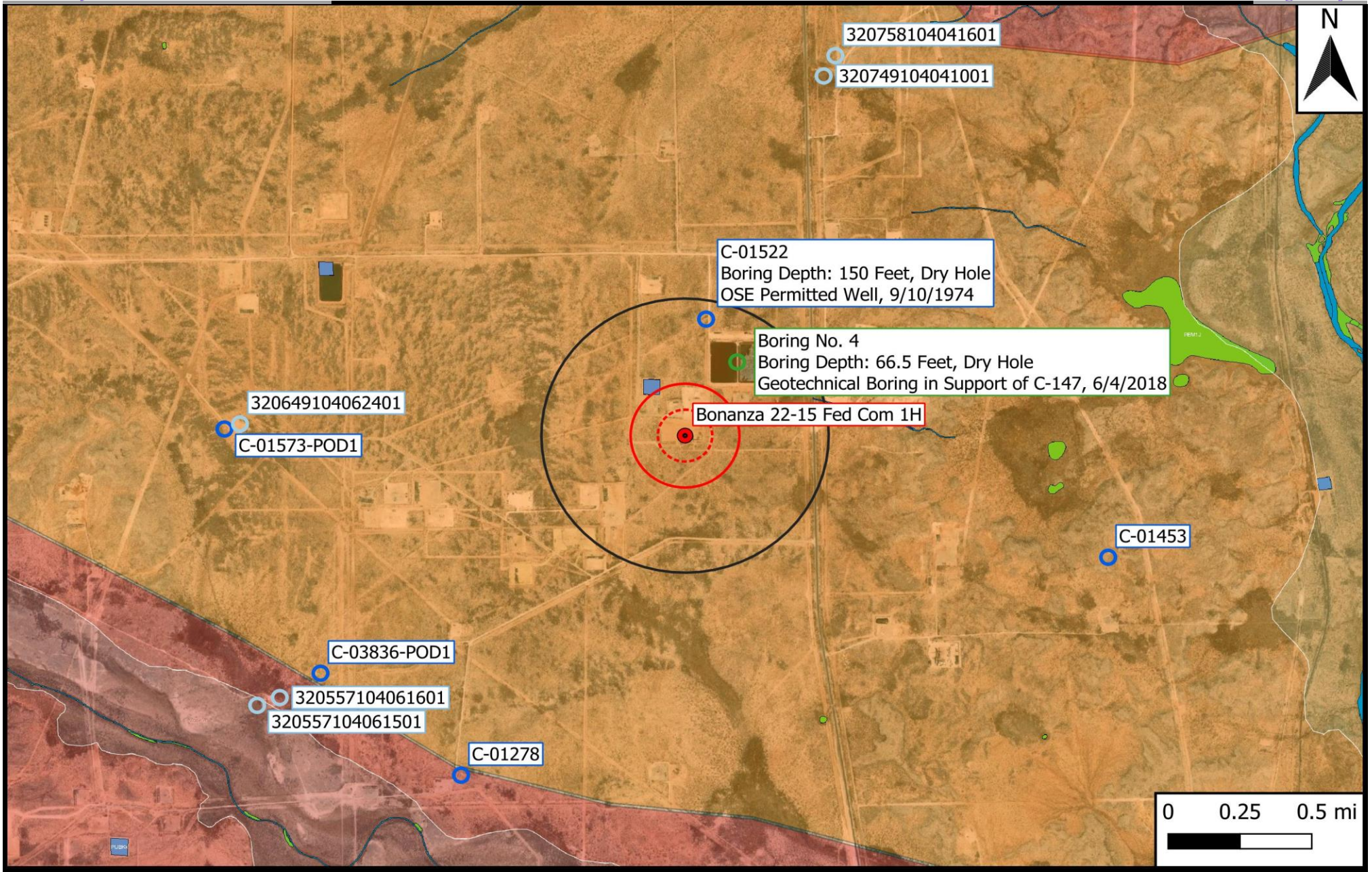


Figure 2

Aerial Proximity Map

Plains All American

Bonanza 22-15 Fed Com 1H

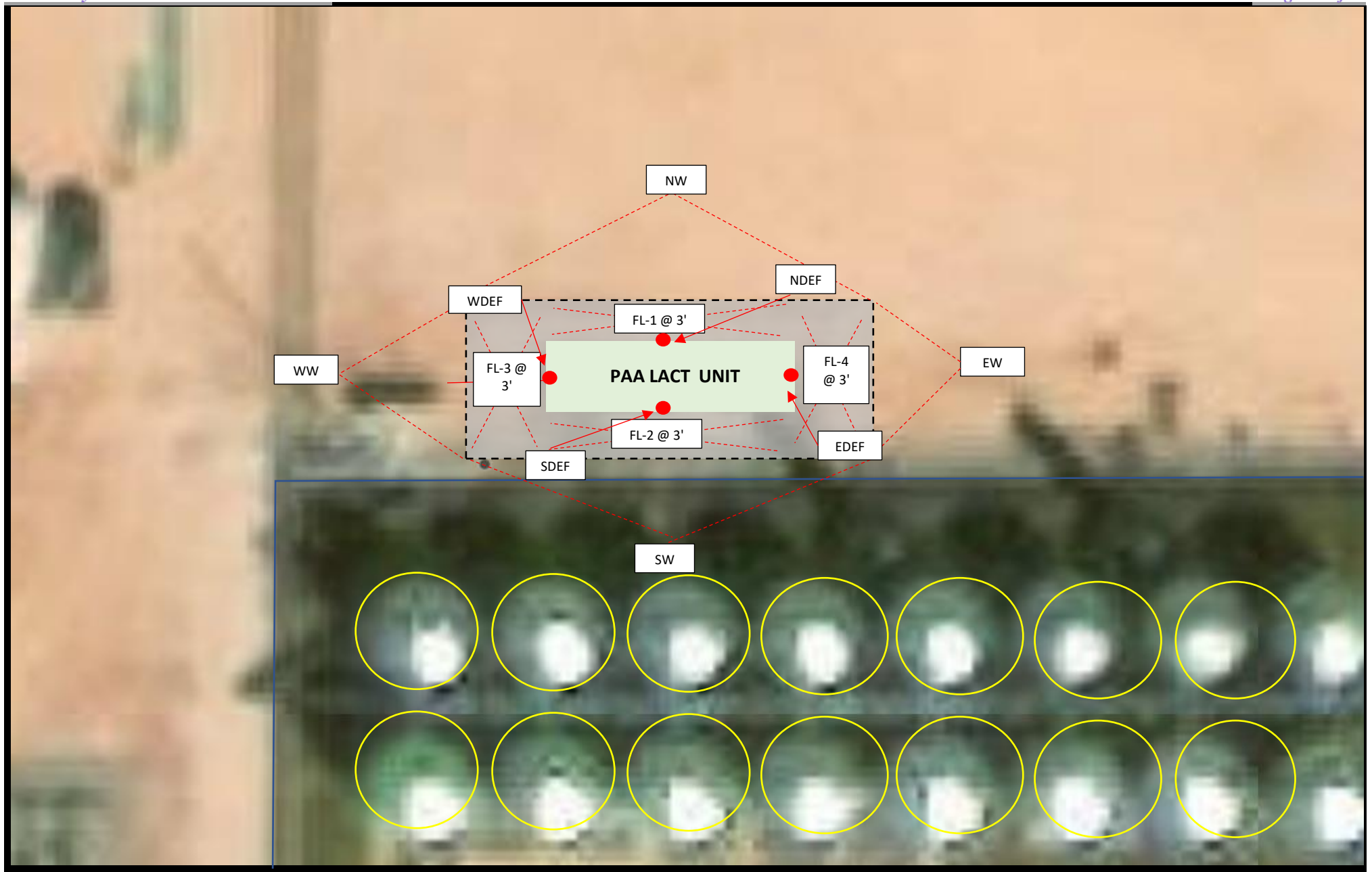
GPS: 32.11293, -104.08073

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 11/2/22

Figure 3
Site and Sample Location Map



Legend:

- Sample Point
- Excavated Area
- Pipeline
- Composite Sample Location
- Tank
- Containment

Figure 3

Site and Sample Location Map

Plains All American

Bonanza 22-15 Fed Com 1H

GPS: 32.11293, -104.08073

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Edited	mag	Checked:	jwl	Date:	6/2/22
Drafted:	jwl			Date:	3/30/22

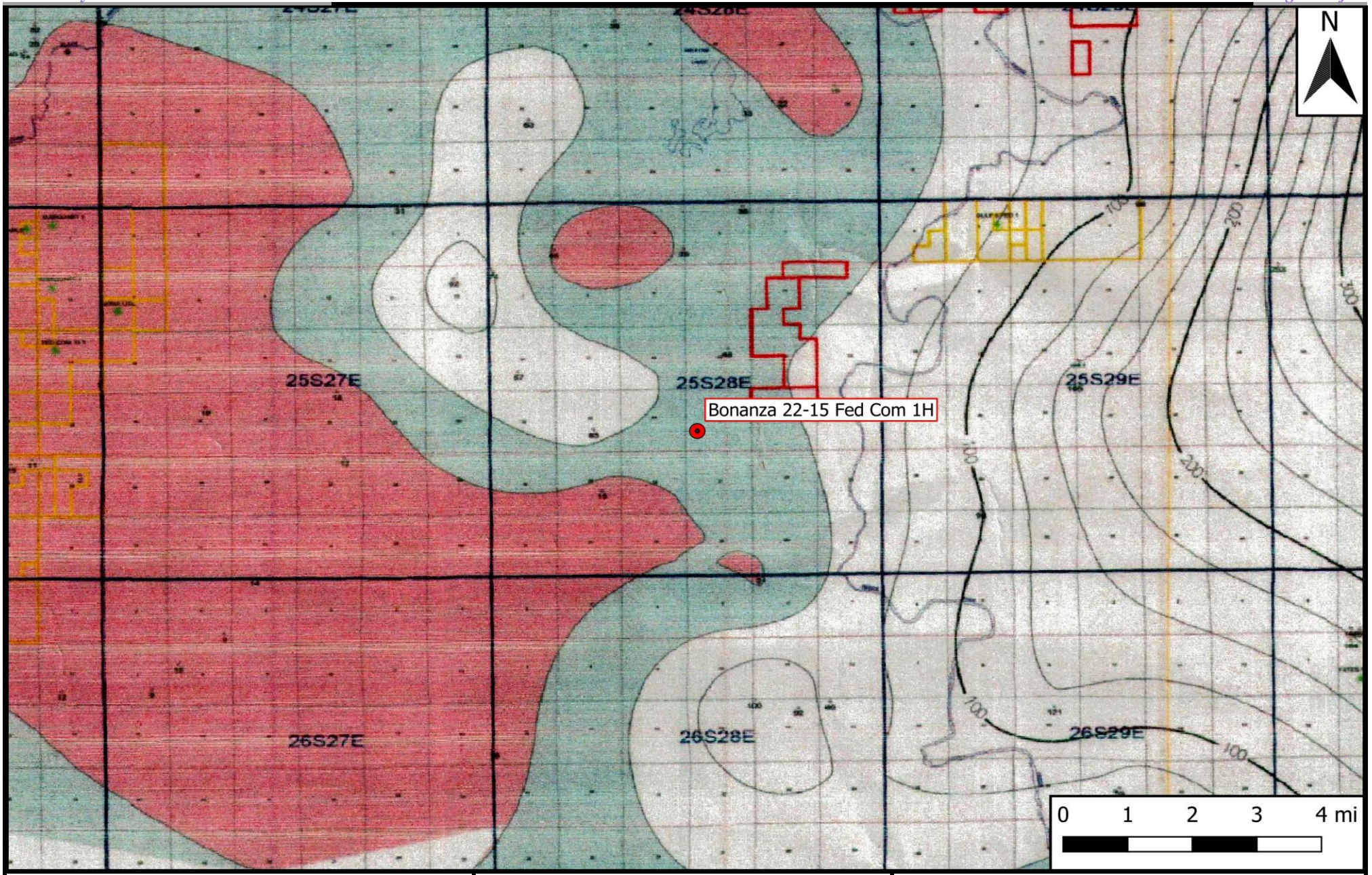
Table 1
Concentrations of BTEX, TPH, and Chloride in Soil

Table 1
Concentrations of BTEX, TPH, and Chloride in Soil
Plains All American
Bonanza 22-15 Fed Com 1H
NMOCD Ref. #: nAPP2207347201

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**10,000**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
Sample ID	**Date**	**Depth (Feet)**	**Soil Status**	**SW 846 8021B**		**SW 846 8015M Ext.**					**4500 Cl**
				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)**
Delineation Samples											
EH @ SURFACE	3/17/2022	0	In-Situ	<0.00199	<0.00398	<50.0	88.9	88.9	<50.0	88.9	34.4
EH @ 1	3/17/2022	1	In-Situ	<0.00200	<0.00399	<50.0	78.8	78.8	<50.0	78.8	24.7
NH @ SURFACE	3/17/2022	0	In-Situ	<0.00199	<0.00398	<49.9	107	107	<49.9	107	32.3
NH @ 1	3/17/2022	1	In-Situ	<0.00199	<0.00398	<49.9	91.9	91.9	<49.9	91.9	14.9
SH @ SURFACE	3/17/2022	0	In-Situ	<0.00202	<0.00403	<49.9	73.0	73.0	<49.9	73.0	19.3
SH @ 1	3/17/2022	1	In-Situ	<0.00199	<0.00398	<49.8	115	115	<49.8	115	21.6
WH @ SURFACE	3/17/2022	0	In-Situ	0.00230	0.00505	<50.0	77.3	77.3	<50.0	77.3	17.1
WH @ 1	3/17/2022	1	In-Situ	<0.00200	<0.00399	<49.9	112	112	<49.9	112	19.4
Deferral Samples											
EDEF1 @ SURFACE	3/17/2022	0	Deferral	<0.998	22.0	5,410	20,300	**25,700**	3,870	**29,600**	2,150
EDEF1 @ 4'	3/17/2022	4	Deferral	0.00619	0.0429	<50.0	127	127	195	322	18.3
NDEF1 @ SURFACE	3/17/2022	0	Deferral	<1.01	5.28	5,620	23,000	**28,600**	3,910	**32,500**	362
NDEF1 @ 4'	3/17/2022	4	Deferral	0.00331	0.0105	<49.9	170	170	271	441	19.4
SDEF1 @ SURFACE	3/17/2022	0	Deferral	<1.00	25.7	4,030	21,500	**25,500**	2,660	**28,200**	129
SDFE1 @ 4'	3/17/2022	4	Deferral	<0.00198	<0.00396	<50.0	156	156	140	296	15.3
WDEF1 @ SURFACE	3/17/2022	0	Deferral	<0.992	35.5	6,150	22,600	**28,800**	3,200	**32,000**	1,680
WDEF1 @ 4'	3/17/2022	4	Deferral	0.00293	0.0165	<49.9	84.6	84.6	133	218	16.6
Confirmation Samples											
FL1 @ 3'	3/17/2022	3	In-Situ	<0.00201	<0.00402	<50.0	355	355	85.4	440	139
FL2 @ 3'	3/17/2022	3	In-Situ	<0.00199	0.00430	56.0	270	326	82.2	408	183
FL3 @ 3'	3/17/2022	3	In-Situ	<0.00200	<0.00400	<50.0	205	205	76.6	282	173
FL4 @ 3'	3/17/2022	3	In-Situ	<0.00200	<0.00400	<49.9	203	203	72.3	275	172
EW	3/17/2022	0-3	In-Situ	<0.00199	<0.00398	<50.0	146	146	115	261	63.9
NW	3/17/2022	0-3	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	263
SW	3/17/2022	0-3	In-Situ	<0.00202	<0.00403	<50.0	186	186	96.3	282	82.5
WW	3/17/2022	0-3	In-Situ	<0.00201	<0.00402	<50.0	72.1	72.1	89.2	161	234

Dash (-): Sample not analyzed for that constituent.
Bold: NMOCD Closure Criteria exceedance.
Red: NMOCD Reclamation Standard exceedance.

Appendix A
Depth to Groundwater Information



Legend

Site Location

Figure 4

Inferred Depth to Groundwater Trend Map

Plains All American

Bonanza 22-15 Fed Com 1H

GPS: 32.11293, -104.08073

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 3/15/22

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	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01522		C	ED			1	22	25S	28E	586843	3554004*	691	150		

Average Depth to Water: --
Minimum Depth: --
Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 586725 **Northing (Y):** 3553323.1 **Radius:** 804.67

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

3/15/22 8:18 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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	Twn	Rng	X	Y
	C 01522			1	22	25S	28E	586843	3554004*

Driller License: 30 **Driller Company:** BARRON, EMMETT

Driller Name: BARRON, EMMETT

Drill Start Date:	07/15/1974	**Drill Finish Date:**	09/10/1974	**Plug Date:**	
Log File Date:	10/03/1974	**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	150 feet	**Depth Water:**	

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

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

463522

FIELD ENGR. LOG

Section 1. GENERAL INFORMATION

(A) Owner of well Milton R. Wolfson Owner's Well No. _____

Street or Post Office Address 1408 Mission Lane - La Huerta

City and State Carlsbad, N.M.88220

Well was drilled under Permit No. C-1522 and is located in the:

a. ____ ¼ ____ ¼ ____ ¼ N W ¼ of Section 22 Township 25 Range 28 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____

Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Emmett Barron License No. W.D.30

Address 307 South Tenth St. Carlsbad, N.M. 88220

Drilling Began July 15 Completed Sept. 10 Type tools Cable Size of hole 9" in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 150' ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well NONE ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
			No water - Anhydrite formation	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
N			N			N		
o			o			o		
n			N			N		
e			E			E		

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad _____ FWL _____ FSL _____

File No. C-1522 Use Dom-STK Location No. 25.28.22.1440

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	5	5	Top soil
5	35	30	Pink sandy clay
35	120	85	Brown sandy clay
120	125	5	Slight lime & gypsum
125	150	25	Anhydrite & gypsum
			Dry hole

Section 7. REMARKS AND ADDITIONAL INFORMATION

Water showing at 125' slight, not enough to test for salt. Deeper hole did not seem promising after 150'.

STATE ENGINEER OFFICE
DISTRICT II
ROSWELL, N. MEX.
1974 OCT -3 AM 8:31

STATE ENGINEER OFFICE
DISTRICT II
ROSWELL, N. MEX.
1974 OCT -8 AM 8:14

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Emmett D. Barron

Emmett D. Barron
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 7 need be completed.

Approximate Boring Location
Proposed Construction

NOT TO SCALE

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT:	LANDES RECYCLING FACILITY
JOB NO.:	3228JJ040

PLATE 1

BORING LOCATION DIAGRAM

DATE DRILLED: **6-4-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

BORING NO. 4

EQUIPMENT TYPE: **CME-75**
DRILLING TYPE: **7"HSA**
FIELD ENGINEER: **K. Newberry**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOW COUNTS	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G			0	SM		Silty SAND; light brown, medium dense, damp
		N		13				
		N		16	5			red brown
		N		87/11"	10			very dense
		N		77	15			tan
		N		56	20			
		N		84/9"	25			
		N		50/5"	30			
		N		87/8"	35	SC		Clayey SAND; red brown, very dense, damp,
		N		93/8"	40			
		N		50/5"	45			
		N		82	50			
		N		50/6"	55			
		N		80/11"	60			
		N		73/8"	65			
								Bottom of Boring at 66.5 Feet

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

N- STANDARD PENETRATION TEST
R- RING SAMPLE
NR- NO SAMPLE RECOVERY
G- GRAB SAMPLE
B- BUCKET SAMPLE

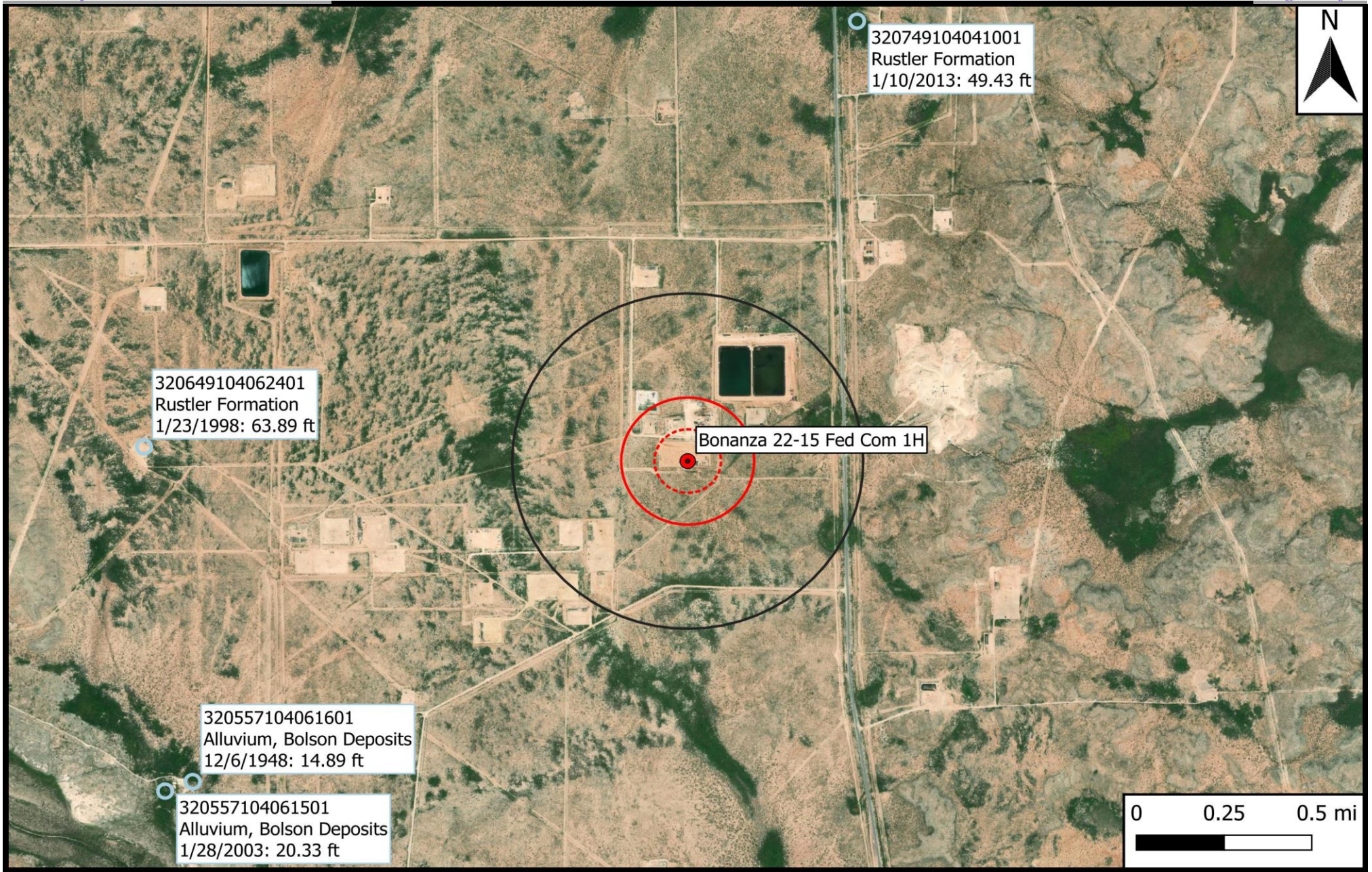
NOTES: **Groundwater Not Encountered**

Geotechnical Environmental Inspections Materials
Western Technologies Inc. The Quality People Since 1955

PROJECT: **LANDES RECYCLING FACILITY**
JOB NO.: **3228JJ040D**

PLATE **A-**

BORING LOG



Legend

- Site Location
- Well - USGS
- 500 Ft Radius
- 1000 Ft Radius
- 0.5 Mi Radius

Figure 5

USGS Well Proximity Map

Plains All American

Bonanza 22-15 Fed Com 1H

GPS: 32.11293, -104.08073

Eddy County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 3/15/22

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320557104061501

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

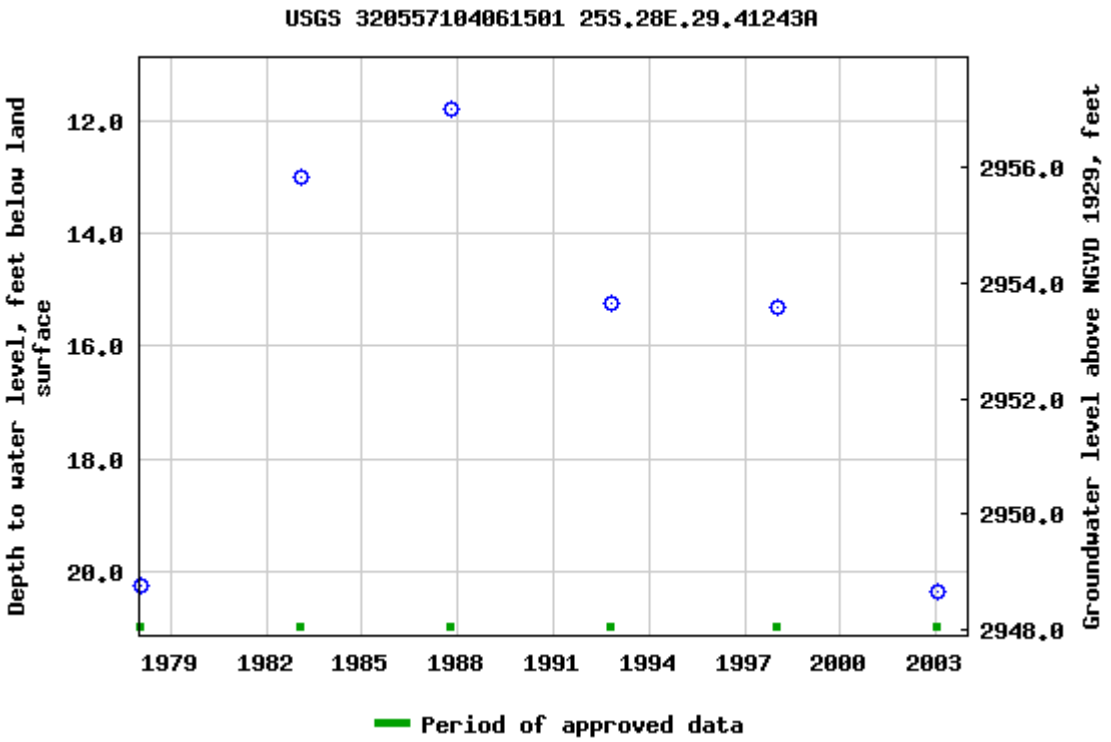
USGS 320557104061501 25S.28E.29.41243A

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°05'56.0", Longitude 104°06'22.6" NAD83
Land-surface elevation 2,968.90 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
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



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
Subscribe for system changes
News

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: 2022-03-15 10:15:07 EDT
0.63 0.56 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320557104061601

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

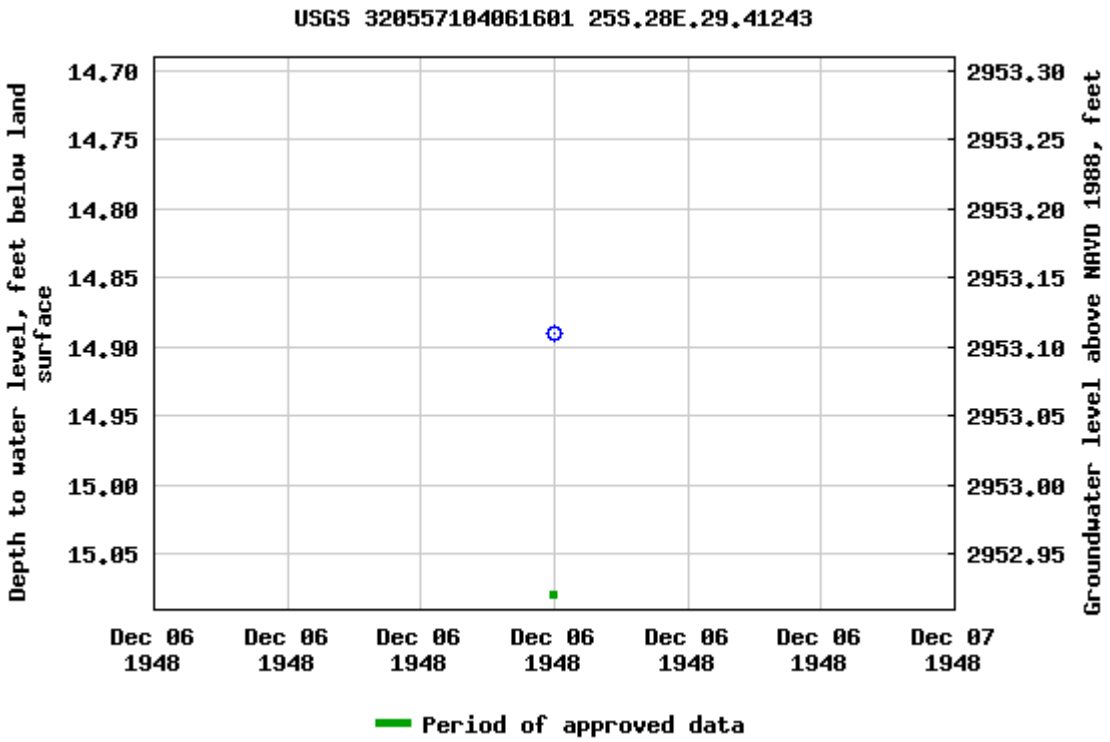
USGS 320557104061601 25S.28E.29.41243

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°05'57", Longitude 104°06'16" NAD27
Land-surface elevation 2,968 feet above NAVD88
The depth of the well is 60 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
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



Breaks in the plot represent a gap of at least one year between field measurements.
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Questions about sites/data?
Feedback on this web site
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News

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: 2022-03-15 10:15:07 EDT
0.66 0.59 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320649104062401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

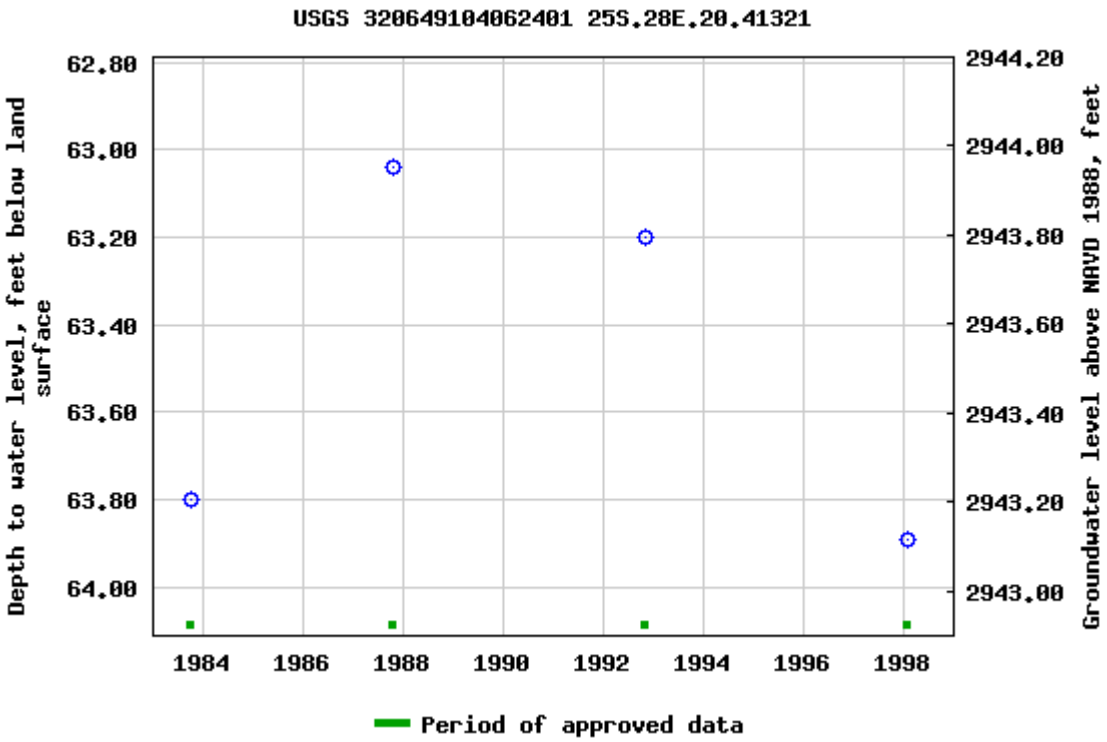
USGS 320649104062401 25S.28E.20.41321

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°06'49", Longitude 104°06'24" NAD27
Land-surface elevation 3,007 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



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

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-03-15 10:15:08 EDT
0.64 0.58 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320749104041001

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

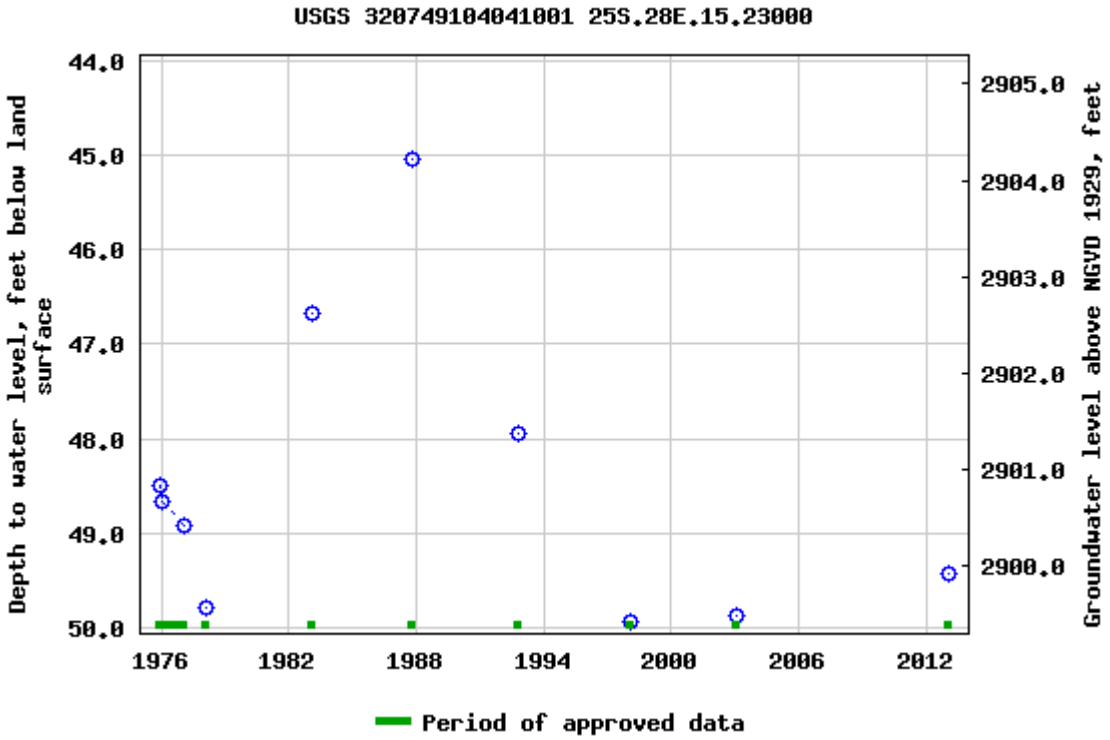
USGS 320749104041001 25S.28E.15.23000

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°07'54.6", Longitude 104°04'20.3" NAD83
Land-surface elevation 2,949.30 feet above NGVD29
The depth of the well is 70 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) 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
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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: 2022-03-15 10:15:09 EDT
0.66 0.58 nadww01

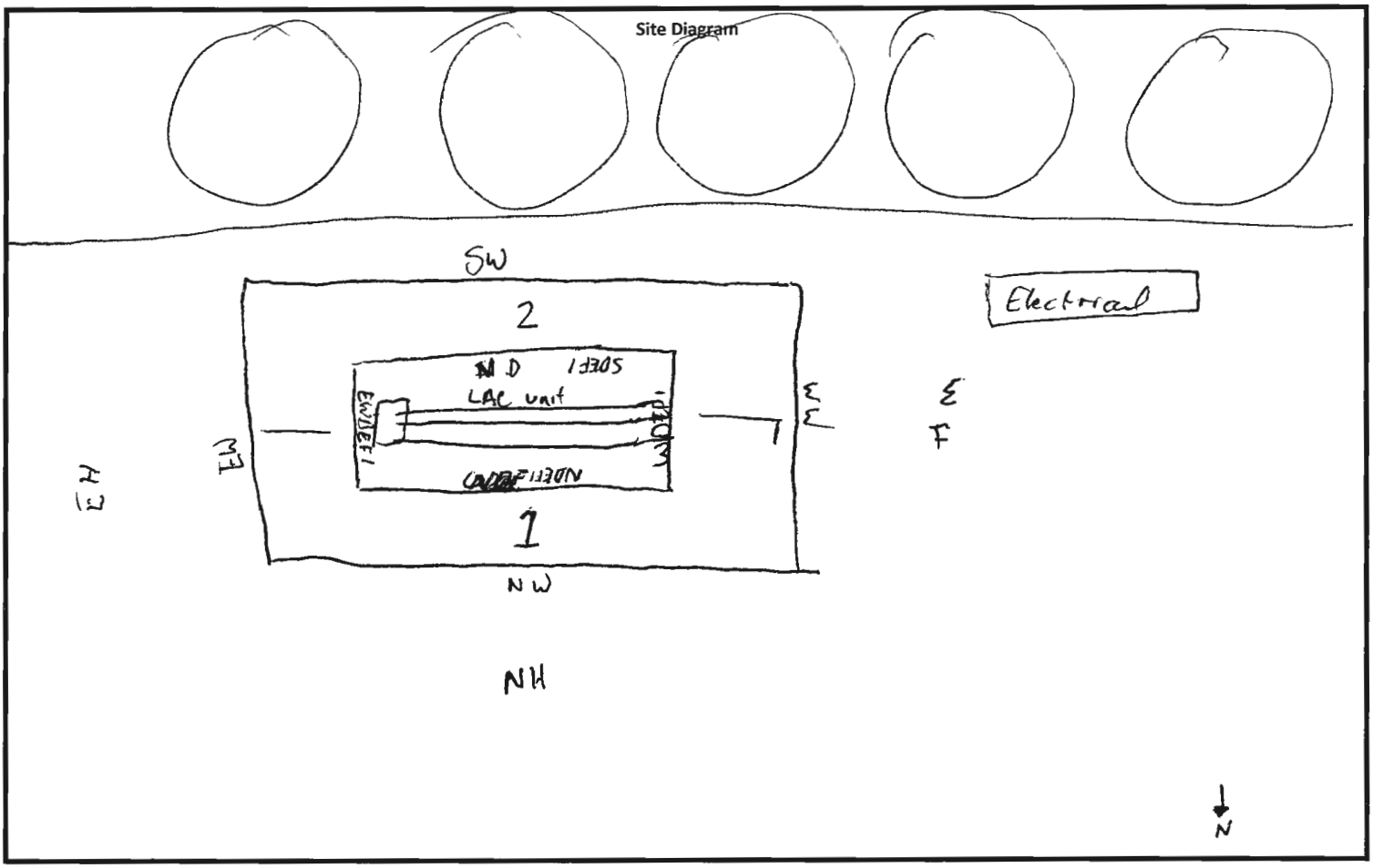
Appendix B
Field Data and Waste Transport Manifests

Initial Release Assessment Form

Date: 3/17/22

Project: Bonanza 22-15 Fed Com 1H SH
Clean Up Level: 20,000 mg/kg Cl-, 2,500 mg/kg TPH
Project Number: 15785
Latitude: 32.11293
Longitude: -104.08073

Site Diagram



Notes: Collect Confirmation Soil Samples
Delineate Site

~Length: 50' ~Width: 25' ~Area: 1250 sq ft ~Depth: 3'

	Yes	No
3-4 Representative Pictures of the Affected Area including sample locations?	☑	☐
Necessary Samples Field Screened and on Ice?	☑	☐
Sample and Field Screen Data Entered on Sample Log?	☑	☐
Was horizontal and vertical delineation achieved?	☑	☐

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 3/17/22

Project: Bonanza 22-15 Fed Com 1H

Project Number: 15785 Latitude: 32.11293 Longitude: -104.08073

Sample ID	PID/Odor	Chloride Conc.	GPS
	-	952	
FL 1 @ 3'	-	952	
FL 2 @ 3'	-	288	
NW	-	2464	
EW	-	888	
SW	-	1028	
WW	-	1368	
NDEF1 @ surface			
NDEF1 @	-		
EDEF1 @ surface			
EDEF1 @	-		
SDEF1 @ surface			
SDEF1 @	-		
WDEF1 @ surface			
WDEF1 @	-		
NH	-		
EH	-		
WH	-		
SH	-		
FL2@4'		1104	
FL4@4'		1276	
NH@1'			
EH@1'			
SH@1'			
WH@1'			

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME & ADDRESS:
Plains Pipeline, L.P.
115 London Road
Loving, NM 88256

LOCATION OF MATERIAL: BONANZA CTB
32.11293, -104.08073
U/LL, Section 22, Township 25 South, Range 28 East

DESCRIPTION OF WASTE:
Non-Hazardous Hydrocarbon impacted soil
Volume: 12 YARDS

TRANSPORTERS NAME & ADDRESS:
Jade Oilfield Services

Driver's Name: JOSE SANCHEZ
Date: 5/11/22
Driver's Signature: J. Sanchez

FACILITY CONTACT:
Brian Kennedy
Plains Pipeline, LP
115 London Road
Loving, NM 88256
505 635 0743
505 635 0743

Date: May.11,2022
Signature: Brian Kennedy **

DISPOSAL FACILITY:
LeaLand

Date: 5/11/22
Signature: M Sanchez

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME & ADDRESS:

Plains Pipeline, L.P.
115 London Road
Loving, NM 88256

LOCATION OF MATERIAL:

32.11293, -104.08073
U/LL, Section 22, Township 25 South, Range 28 East

DESCRIPTION OF WASTE:

Non-Hazardous Hydrocarbon impacted soil
Volume: 12 YARDS

TRANSPORTERS NAME & ADDRESS:

Jade Oilfield Services

Driver's Name: JOSE SANCHEZ
Date: 5/11/22
Driver's Signature: J. Sanchez

FACILITY CONTACT:

Brian Kennedy
Plains Pipeline, LP
115 London Road
Loving, NM 88256

Date: May.11,2022
Signature: Brian Kennedy **

DISPOSAL FACILITY:

LeaLand

Date: 5/11/22
Signature: M Sanchez

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

JADE

NON-HAZARDOUS WASTE MANIFEST NO 154854 | 1. PAGE ___ OF ___ | 2. TRAILER NO. White

GENERATOR

3. COMPANY NAME	4. ADDRESS	5. PICK-UP DATE
Plains Pipeline, LP	1911 Connie	5/11/2022
PHONE NO.	CITY / STATE / ZIP: Carlsbad / NM / 88220	6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a. Non-Regulated, Non Hazardous Waste	1	CM			
b.					
c.					
d. WT: 24480 19880					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.
BONANZA CTB	

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME	PHONE NO	24-HOUR EMERGENCY NO.
JOE ONTIVEROS	575-887-4048	

15. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME	SIGNATURE	DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME: JADE CONSTRUCTION	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT: JOE PALMA	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE: 575	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME X Jose Sanchez	PRINTED/TYPED NAME
SIGNATURE X DATE 5/11/2022	SIGNATURE DATE

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME
Manuela Sanchez		5/11/2022	10:55

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME & ADDRESS:

Plains Pipeline, L.P.
115 London Road
Loving, NM 88256

LOCATION OF MATERIAL:

32.11293, -104.08073
U/LL, Section 22, Township 25 South, Range 28 East

DESCRIPTION OF WASTE:

Non-Hazardous Hydrocarbon impacted soil
Volume: 12 YARDS

TRANSPORTERS NAME & ADDRESS:

Jade Oilfield Services

Driver's Name: Miguel Gomez
Date: 5 12 22
Driver's Signature:

FACILITY CONTACT:

Brian Kennedy
Plains Pipeline, LP
115 London Road
Loving, NM 88256

Date: May.12,2022
Signature: Brian Kennedy **

DISPOSAL FACILITY:

LeaLand

Date: 5 12 22
Signature:

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME & ADDRESS:

Plains Pipeline, L.P.
115 London Road
Loving, NM 88256

LOCATION OF MATERIAL:

32.11293, -104.08073
U/LL, Section 22, Township 25 South, Range 28 East

DESCRIPTION OF WASTE:

Non-Hazardous Hydrocarbon impacted soil
Volume: 12 YARDS

TRANSPORTERS NAME & ADDRESS:

Jade Oilfield Services

Driver's Name: Miguel Gomez
Date: 5/12/22
Driver's Signature:

FACILITY CONTACT:

Brian Kennedy
Plains Pipeline, LP
115 London Road
Loving, NM 88256

Date: May.14,2022
Signature: Brian Kennedy **

DISPOSAL FACILITY:

LeaLand

Date: 5/12/22
Signature: M Sanchez

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

JADE

NON-HAZARDOUS WASTE MANIFEST NO 154940 | 1. PAGE ___ OF ___ | 2. TRAILER NO. TR 2

GENERATOR

3. COMPANY NAME	4. ADDRESS			5. PICK-UP DATE
Plains Pipeline, LP	1911 Connie			5/12/2022
PHONE NO.	CITY	STATE	ZIP	6. TNRCC I.D. NO.
	Carlsbad	NM	88220	

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a. Non-Regulated, Non Hazardous Waste	1	CM			
b.					
c.					
d. WT: 44580 44180					

12. COMMENTS OR SPECIAL INSTRUCTIONS: BONANZA CTB

13. WASTE PROFILE NO.

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME	PHONE NO	24-HOUR EMERGENCY NO.
JOE ONTIVEROS	575-887-4048	

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME	SIGNATURE	DATE

TRANSPORTERS

16. **TRANSPORTER (1)**	17. **TRANSPORTER (2)**
NAME: JADE CONSTRUCTION	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT: JOE PALMA	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE: 575	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME X Enrique Lozano	PRINTED/TYPED NAME
SIGNATURE X DATE 5/12/2022	SIGNATURE DATE

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME
Manuela Sanchez		5/12/2022	9:50

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME & ADDRESS:
Plains Pipeline, L.P.
115 London Road
Loving, NM 88256

LOCATION OF MATERIAL:
32.11293, -104.08073
U/LL, Section 22, Township 25 South, Range 28 East

DESCRIPTION OF WASTE:
Non-Hazardous Hydrocarbon Impacted soil
Volume: 12 YARDS

TRANSPORTERS NAME & ADDRESS:
Jade Oilfield Services

Driver's Name: Jose Sanchez
Date: 5/13/22
Driver's Signature: Jose Sanchez

FACILITY CONTACT:
Brian Kennedy
Plains Pipeline, LP
115 London Road
Loving, NM 88256

Date: May.13,2022
Signature: Brian Kennedy **

DISPOSAL FACILITY:
LeaLand

Date: 5/13/22
Signature:

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 154999 | 1. PAGE ___ OF ___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME	4. ADDRESS	5. PICK-UP DATE
Plains Pipeline, LP	1911 Connie	5/13/2022
PHONE NO.	CITY / STATE / ZIP: Carlsbad / NM / 88220	6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a. Non-Regulated, Non Hazardous Waste	1	CM			
b.					
c.					
d. WT. 30960					

12. COMMENTS OR SPECIAL INSTRUCTIONS: BONANZA CTB

13. WASTE PROFILE NO.

TO

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME	PHONE NO	24-HOUR EMERGENCY NO.
JOE ONTIVEROS	575-887-4048	

OR

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME	SIGNATURE	DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME: JADE CONSTRUCTION	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT: JOE PALMA	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE: 5753066562	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME X	PRINTED/TYPED NAME
SIGNATURE X DATE 5/13/2022	SIGNATURE DATE

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

PERMIT NO.	20. COMMENTS
WM-01-035 - New Mexico	

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME
Manuel Sandoval		5/13/2022	7:35

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

Appendix C
Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2098-1
Laboratory Sample Delivery Group: Rural Eddy County NM
Client Project/Site: Bonanza 22-15

For:
Etech Environmental & Safety Solutions
PO BOX 62228
Midland, Texas 79711

Attn: Joel Lowry

JKRAMER

Authorized for release by:
3/30/2022 7:48:00 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Laboratory Job ID: 890-2098-1
SDG: Rural Eddy County NM

Table of Contents

Definitions/Glossary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Job ID: 890-2098-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2098-1

Receipt
The samples were received on 3/17/2022 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 24.2°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-2099-A-1-C), (890-2099-A-1-D MS) and (890-2099-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21849 and analytical batch 880-21864 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-21849/2-A), (LCSD 880-21849/3-A) and (MB 880-21849/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: NH @ SURFACE

Lab Sample ID: 890-2098-1
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:14*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**107**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 18:15	1
Diesel Range Organics (Over C10-C28)	**107**		49.9		mg/Kg		03/18/22 08:50	03/18/22 18:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:15*	*1*
o-Terphenyl	*110*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.3**		4.99		mg/Kg			03/28/22 16:26	1

Client Sample ID: NH @1

Lab Sample ID: 890-2098-2
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:35*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:35*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: NH @1

Lab Sample ID: 890-2098-2
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**91.9**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 18:35	1
Diesel Range Organics (Over C10-C28)	**91.9**		49.9		mg/Kg		03/18/22 08:50	03/18/22 18:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:35*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.9**		5.01		mg/Kg			03/28/22 16:53	1

Client Sample ID: EH @SURFACE

Lab Sample ID: 890-2098-3
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/23/22 23:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/23/22 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:56*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/23/22 13:50*	*03/23/22 23:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**88.9**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 18:56	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: EH @SURFACE

Lab Sample ID: 890-2098-3
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**88.9**		50.0		mg/Kg		03/18/22 08:50	03/18/22 18:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:56*	*1*
o-Terphenyl	*116*		*70 - 130*	*03/18/22 08:50*	*03/18/22 18:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.4**		4.98		mg/Kg			03/30/22 05:30	1

Client Sample ID: EH @1

Lab Sample ID: 890-2098-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 00:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 00:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 00:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/22 13:50	03/24/22 00:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 00:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/22 13:50	03/24/22 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:16*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**78.8**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 19:17	1
Diesel Range Organics (Over C10-C28)	**78.8**		50.0		mg/Kg		03/18/22 08:50	03/18/22 19:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:17*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.7**		5.00		mg/Kg			03/30/22 05:56	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: SH @ SURFACE

Lab Sample ID: 890-2098-5
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/23/22 13:50	03/24/22 00:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/23/22 13:50	03/24/22 00:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/23/22 13:50	03/24/22 00:36	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/23/22 13:50	03/24/22 00:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/23/22 13:50	03/24/22 00:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/23/22 13:50	03/24/22 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:36*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.0**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 19:38	1
Diesel Range Organics (Over C10-C28)	**73.0**		49.9		mg/Kg		03/18/22 08:50	03/18/22 19:38	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 08:50	03/18/22 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:38*	*1*
o-Terphenyl	*108*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.3**		4.99		mg/Kg			03/30/22 06:05	1

Client Sample ID: SH @ 1

Lab Sample ID: 890-2098-6
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/24/22 00:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/24/22 00:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/24/22 00:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/24/22 00:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/22 13:50	03/24/22 00:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/22 13:50	03/24/22 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:57*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/23/22 13:50*	*03/24/22 00:57*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: SH @ 1

Lab Sample ID: 890-2098-6
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**115**		49.8		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/22 08:50	03/18/22 19:58	1
Diesel Range Organics (Over C10-C28)	**115**		49.8		mg/Kg		03/18/22 08:50	03/18/22 19:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/22 08:50	03/18/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:58*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/18/22 08:50*	*03/18/22 19:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.6**		5.00		mg/Kg			03/30/22 06:14	1

Client Sample ID: WH@ SURFACE

Lab Sample ID: 890-2098-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00230**		0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:17	1
Toluene	**0.00275**		0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 13:50	03/24/22 01:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 13:50	03/24/22 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/23/22 13:50*	*03/24/22 01:17*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/23/22 13:50*	*03/24/22 01:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00505**		0.00400		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**77.3**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 20:19	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: WH@ SURFACE

Lab Sample ID: 890-2098-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**77.3**		50.0		mg/Kg		03/18/22 08:50	03/18/22 20:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/18/22 08:50*	*03/18/22 20:19*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/18/22 08:50*	*03/18/22 20:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.1**		4.98		mg/Kg			03/30/22 06:23	1

Client Sample ID: WH @1

Lab Sample ID: 890-2098-8
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/22 13:50	03/24/22 01:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/24/22 01:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/22 13:50	03/24/22 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/23/22 13:50*	*03/24/22 01:38*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/23/22 13:50*	*03/24/22 01:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/24/22 16:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**112**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:03	03/19/22 19:10	1
Diesel Range Organics (Over C10-C28)	**112**		49.9		mg/Kg		03/18/22 17:03	03/19/22 19:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/22 17:03	03/19/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/18/22 17:03*	*03/19/22 19:10*	*1*
o-Terphenyl	*108*		*70 - 130*	*03/18/22 17:03*	*03/19/22 19:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.4**		4.97		mg/Kg			03/30/22 06:49	1

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Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2098-1	NH @ SURFACE	110	111										
890-2098-1 MS	NH @ SURFACE	101	110										
890-2098-1 MSD	NH @ SURFACE	101	111										
890-2098-2	NH @1	105	110										
890-2098-3	EH @SURFACE	107	101										
890-2098-4	EH @1	110	113										
890-2098-5	SH @ SURFACE	96	94										
890-2098-6	SH @ 1	108	111										
890-2098-7	WH@ SURFACE	106	112										
890-2098-8	WH @1	108	111										
LCS 880-22141/1-A	Lab Control Sample	103	110										
LCSD 880-22141/2-A	Lab Control Sample Dup	101	110										
MB 880-21854/5-B	Method Blank	103	104										
MB 880-22141/5-A	Method Blank	103	104										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-12547-A-1-B MS	Matrix Spike	100	107										
880-12547-A-1-C MSD	Matrix Spike Duplicate	99	108										
890-2098-1	NH @ SURFACE	92	110										
890-2098-2	NH @1	95	112										
890-2098-3	EH @SURFACE	99	116										
890-2098-4	EH @1	86	103										
890-2098-5	SH @ SURFACE	91	108										
890-2098-6	SH @ 1	88	106										
890-2098-7	WH@ SURFACE	88	104										
890-2098-8	WH @1	110	108										
890-2099-A-1-D MS	Matrix Spike	193 S1+	340 S1+										
890-2099-A-1-E MSD	Matrix Spike Duplicate	187 S1+	327 S1+										
LCS 880-21924/2-A	Lab Control Sample	111	113										
LCSD 880-21924/3-A	Lab Control Sample Dup	95	94										
MB 880-21924/1-A	Method Blank	98	101										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Surrogate Summary

Client: Etech Environmental & Safety Solutions Job ID: 890-2098-1
Project/Site: Bonanza 22-15 SDG: Rural Eddy County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO2	OTPH2								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCS 880-21849/2-A	Lab Control Sample	119	143 S1+								
LCSD 880-21849/3-A	Lab Control Sample Dup	115	141 S1+								
MB 880-21849/1-A	Method Blank	113	152 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21854/5-B
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 07:30	03/23/22 11:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 07:30	03/23/22 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 07:30*	*03/23/22 11:59*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 07:30*	*03/23/22 11:59*	*1*

Lab Sample ID: MB 880-22141/5-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/23/22 22:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/23/22 22:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/23/22 22:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/22 13:50	03/23/22 22:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/22 13:50	03/23/22 22:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/22 13:50	03/23/22 22:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/23/22 13:50*	*03/23/22 22:53*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/22 13:50*	*03/23/22 22:53*	*1*

Lab Sample ID: LCS 880-22141/1-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22141

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09514		mg/Kg		95	70 - 130		
Toluene			0.100	0.09412		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09619		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.1977		mg/Kg		99	70 - 130		
o-Xylene			0.100	0.1012		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-22141/2-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09001		mg/Kg		90	70 - 130	6	35

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-22141/2-A
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.08892		mg/Kg		89	70 - 130	6	35
Ethylbenzene			0.100	0.09086		mg/Kg		91	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1872		mg/Kg		94	70 - 130	5	35
o-Xylene			0.100	0.09392		mg/Kg		94	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-2098-1 MS
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: NH @ SURFACE
Prep Type: Total/NA
Prep Batch: 22141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.100	0.08985		mg/Kg		89	70 - 130		
Toluene	<0.00199	U	0.100	0.08664		mg/Kg		85	70 - 130		
Ethylbenzene	<0.00199	U	0.100	0.08545		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1746		mg/Kg		86	70 - 130		
o-Xylene	<0.00199	U	0.100	0.08938		mg/Kg		89	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-2098-1 MSD
Matrix: Solid
Analysis Batch: 22183

Client Sample ID: NH @ SURFACE
Prep Type: Total/NA
Prep Batch: 22141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.09469		mg/Kg		95	70 - 130	5	35
Toluene	<0.00199	U	0.0990	0.09404		mg/Kg		94	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.0990	0.09629		mg/Kg		97	70 - 130	12	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1984		mg/Kg		99	70 - 130	13	35
o-Xylene	<0.00199	U	0.0990	0.1001		mg/Kg		101	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21849/1-A
Matrix: Solid
Analysis Batch: 21864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 11:39	1

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-21849/1-A
Matrix: Solid
Analysis Batch: 21864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 11:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 08:50	03/18/22 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/18/22 08:50*	*03/18/22 11:39*	*1*
o-Terphenyl	*152*	*S1+*	*70 - 130*	*03/18/22 08:50*	*03/18/22 11:39*	*1*

Lab Sample ID: LCS 880-21849/2-A
Matrix: Solid
Analysis Batch: 21864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1039		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1133		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*143*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-21849/3-A
Matrix: Solid
Analysis Batch: 21864

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21849

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1006		mg/Kg		101	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1086		mg/Kg		109	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*141*	*S1+*	*70 - 130*

Lab Sample ID: 880-12547-A-1-B MS
Matrix: Solid
Analysis Batch: 21864

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21849

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	998	1354	F1	mg/Kg		134	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	1381	F1	mg/Kg		134	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-12547-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21864 — **Prep Batch: 21849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	999	1358	F1	mg/Kg		134	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	1392	F1	mg/Kg		135	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: MB 880-21924/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21941 — **Prep Batch: 21924**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/18/22 17:03*	*03/19/22 11:36*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/18/22 17:03*	*03/19/22 11:36*	*1*

Lab Sample ID: LCS 880-21924/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21941 — **Prep Batch: 21924**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	830.9		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1109		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: LCSD 880-21924/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21941 — **Prep Batch: 21924**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	712.5		mg/Kg		71	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	920.6		mg/Kg		92	70 - 130	19	20

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-21924/3-A
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21924

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2099-A-1-D MS
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	5620		998	7016	4	mg/Kg		140	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	193	S1+	70 - 130
o-Terphenyl	340	S1+	70 - 130

Lab Sample ID: 890-2099-A-1-E MSD
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	5620		999	6564	4	mg/Kg		95	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	187	S1+	70 - 130
o-Terphenyl	327	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22034/1-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/30/22 05:03	1

Lab Sample ID: LCS 880-22034/2-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	247.5		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-22034/3-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	246.2		mg/Kg		98	90 - 110	1	20

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2098-3 MS
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: EH @SURFACE
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	34.4		249	290.7		mg/Kg		103	90 - 110

Lab Sample ID: 890-2098-3 MSD
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: EH @SURFACE
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	34.4		249	290.3		mg/Kg		103	90 - 110	0	20

Lab Sample ID: MB 880-22475/1-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/28/22 15:06	1

Lab Sample ID: LCS 880-22475/2-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-22475/3-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	246.2		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-2141-A-1-C MS
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	72.0		249	313.1		mg/Kg		97	90 - 110

Lab Sample ID: 890-2141-A-1-D MSD
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	72.0		249	313.9		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

GC VOA

Prep Batch: 21854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21854/5-B	Method Blank	Total/NA	Solid	5035	

Prep Batch: 22141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	5035	
890-2098-2	NH @1	Total/NA	Solid	5035	
890-2098-3	EH @SURFACE	Total/NA	Solid	5035	
890-2098-4	EH @1	Total/NA	Solid	5035	
890-2098-5	SH @ SURFACE	Total/NA	Solid	5035	
890-2098-6	SH @ 1	Total/NA	Solid	5035	
890-2098-7	WH@ SURFACE	Total/NA	Solid	5035	
890-2098-8	WH @1	Total/NA	Solid	5035	
MB 880-22141/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22141/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22141/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2098-1 MS	NH @ SURFACE	Total/NA	Solid	5035	
890-2098-1 MSD	NH @ SURFACE	Total/NA	Solid	5035	

Analysis Batch: 22183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	8021B	22141
890-2098-2	NH @1	Total/NA	Solid	8021B	22141
890-2098-3	EH @SURFACE	Total/NA	Solid	8021B	22141
890-2098-4	EH @1	Total/NA	Solid	8021B	22141
890-2098-5	SH @ SURFACE	Total/NA	Solid	8021B	22141
890-2098-6	SH @ 1	Total/NA	Solid	8021B	22141
890-2098-7	WH@ SURFACE	Total/NA	Solid	8021B	22141
890-2098-8	WH @1	Total/NA	Solid	8021B	22141
MB 880-21854/5-B	Method Blank	Total/NA	Solid	8021B	21854
MB 880-22141/5-A	Method Blank	Total/NA	Solid	8021B	22141
LCS 880-22141/1-A	Lab Control Sample	Total/NA	Solid	8021B	22141
LCSD 880-22141/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22141
890-2098-1 MS	NH @ SURFACE	Total/NA	Solid	8021B	22141
890-2098-1 MSD	NH @ SURFACE	Total/NA	Solid	8021B	22141

Analysis Batch: 22308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	Total BTEX	
890-2098-2	NH @1	Total/NA	Solid	Total BTEX	
890-2098-3	EH @SURFACE	Total/NA	Solid	Total BTEX	
890-2098-4	EH @1	Total/NA	Solid	Total BTEX	
890-2098-5	SH @ SURFACE	Total/NA	Solid	Total BTEX	
890-2098-6	SH @ 1	Total/NA	Solid	Total BTEX	
890-2098-7	WH@ SURFACE	Total/NA	Solid	Total BTEX	
890-2098-8	WH @1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

GC Semi VOA (Continued)

Prep Batch: 21849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-2	NH @1	Total/NA	Solid	8015NM Prep	
890-2098-3	EH @SURFACE	Total/NA	Solid	8015NM Prep	
890-2098-4	EH @1	Total/NA	Solid	8015NM Prep	
890-2098-5	SH @ SURFACE	Total/NA	Solid	8015NM Prep	
890-2098-6	SH @ 1	Total/NA	Solid	8015NM Prep	
890-2098-7	WH@ SURFACE	Total/NA	Solid	8015NM Prep	
MB 880-21849/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21849/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21849/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12547-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12547-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	8015B NM	21849
890-2098-2	NH @1	Total/NA	Solid	8015B NM	21849
890-2098-3	EH @SURFACE	Total/NA	Solid	8015B NM	21849
890-2098-4	EH @1	Total/NA	Solid	8015B NM	21849
890-2098-5	SH @ SURFACE	Total/NA	Solid	8015B NM	21849
890-2098-6	SH @ 1	Total/NA	Solid	8015B NM	21849
890-2098-7	WH@ SURFACE	Total/NA	Solid	8015B NM	21849
MB 880-21849/1-A	Method Blank	Total/NA	Solid	8015B NM	21849
LCS 880-21849/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21849
LCSD 880-21849/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21849
880-12547-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	21849
880-12547-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21849

Prep Batch: 21924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-8	WH @1	Total/NA	Solid	8015NM Prep	
MB 880-21924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2099-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2099-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-8	WH @1	Total/NA	Solid	8015B NM	21924
MB 880-21924/1-A	Method Blank	Total/NA	Solid	8015B NM	21924
LCS 880-21924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21924
LCSD 880-21924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21924
890-2099-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	21924
890-2099-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21924

Analysis Batch: 21999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Total/NA	Solid	8015 NM	
890-2098-2	NH @1	Total/NA	Solid	8015 NM	
890-2098-3	EH @SURFACE	Total/NA	Solid	8015 NM	
890-2098-4	EH @1	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

GC Semi VOA (Continued)

Analysis Batch: 21999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-5	SH @ SURFACE	Total/NA	Solid	8015 NM	
890-2098-6	SH @ 1	Total/NA	Solid	8015 NM	
890-2098-7	WH@ SURFACE	Total/NA	Solid	8015 NM	
890-2098-8	WH @1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-3	EH @SURFACE	Soluble	Solid	DI Leach	
890-2098-4	EH @1	Soluble	Solid	DI Leach	
890-2098-5	SH @ SURFACE	Soluble	Solid	DI Leach	
890-2098-6	SH @ 1	Soluble	Solid	DI Leach	
890-2098-7	WH@ SURFACE	Soluble	Solid	DI Leach	
890-2098-8	WH @1	Soluble	Solid	DI Leach	
MB 880-22034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2098-3 MS	EH @SURFACE	Soluble	Solid	DI Leach	
890-2098-3 MSD	EH @SURFACE	Soluble	Solid	DI Leach	

Analysis Batch: 22387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-3	EH @SURFACE	Soluble	Solid	300.0	22034
890-2098-4	EH @1	Soluble	Solid	300.0	22034
890-2098-5	SH @ SURFACE	Soluble	Solid	300.0	22034
890-2098-6	SH @ 1	Soluble	Solid	300.0	22034
890-2098-7	WH@ SURFACE	Soluble	Solid	300.0	22034
890-2098-8	WH @1	Soluble	Solid	300.0	22034
MB 880-22034/1-A	Method Blank	Soluble	Solid	300.0	22034
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	300.0	22034
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22034
890-2098-3 MS	EH @SURFACE	Soluble	Solid	300.0	22034
890-2098-3 MSD	EH @SURFACE	Soluble	Solid	300.0	22034

Leach Batch: 22475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Soluble	Solid	DI Leach	
890-2098-2	NH @1	Soluble	Solid	DI Leach	
MB 880-22475/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22475/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22475/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2141-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2141-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 22476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2098-1	NH @ SURFACE	Soluble	Solid	300.0	22475
890-2098-2	NH @1	Soluble	Solid	300.0	22475
MB 880-22475/1-A	Method Blank	Soluble	Solid	300.0	22475
LCS 880-22475/2-A	Lab Control Sample	Soluble	Solid	300.0	22475

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

HPLC/IC (Continued)

Analysis Batch: 22476 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-22475/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22475
890-2141-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	22475
890-2141-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22475

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: NH @ SURFACE

Lab Sample ID: 890-2098-1
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 23:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 18:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22475	03/28/22 11:00	CH	XEN MID
Soluble	Analysis	300.0		1			22476	03/28/22 16:26	CH	XEN MID

Client Sample ID: NH @1

Lab Sample ID: 890-2098-2
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 23:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 18:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	22475	03/28/22 11:00	CH	XEN MID
Soluble	Analysis	300.0		1			22476	03/28/22 16:53	CH	XEN MID

Client Sample ID: EH @SURFACE

Lab Sample ID: 890-2098-3
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/23/22 23:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 18:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 05:30	CH	XEN MID

Client Sample ID: EH @1

Lab Sample ID: 890-2098-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/24/22 00:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Client Sample ID: EH @1

Lab Sample ID: 890-2098-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 19:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 05:56	CH	XEN MID

Client Sample ID: SH @ SURFACE

Lab Sample ID: 890-2098-5
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/24/22 00:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 19:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 06:05	CH	XEN MID

Client Sample ID: SH @ 1

Lab Sample ID: 890-2098-6
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/24/22 00:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 19:58	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 06:14	CH	XEN MID

Client Sample ID: WH@ SURFACE

Lab Sample ID: 890-2098-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/24/22 01:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21849	03/18/22 08:50	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21864	03/18/22 20:19	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Job ID: 890-2098-1
Project/Site: Bonanza 22-15
SDG: Rural Eddy County NM

Client Sample ID: WH@ SURFACE
Lab Sample ID: 890-2098-7
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 06:23	CH	XEN MID

Client Sample ID: WH @1
Lab Sample ID: 890-2098-8
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	22141	03/23/22 13:50	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22183	03/24/22 01:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22308	03/24/22 16:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21999	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 19:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 06:49	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Job ID: 890-2098-1
Project/Site: Bonanza 22-15
SDG: Rural Eddy County NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2098-1
SDG: Rural Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2098-1	NH @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27	
890-2098-2	NH @1	Solid	03/17/22 00:00	03/17/22 13:27	1
890-2098-3	EH @SURFACE	Solid	03/17/22 00:00	03/17/22 13:27	
890-2098-4	EH @1	Solid	03/17/22 00:00	03/17/22 13:27	1
890-2098-5	SH @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27	
890-2098-6	SH @ 1	Solid	03/17/22 00:00	03/17/22 13:27	1
890-2098-7	WH@ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27	
890-2098-8	WH @1	Solid	03/17/22 00:00	03/17/22 13:27	1

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800
www.xenco.com

Work Order No: _____

Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Etech Environmental & Safety	Company Name:	Plains
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level I ☐ Level II ☐ PST/US ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Bonanza 22-15	Turn Around	
Project Number:	15785	Routine:	☒
Project Location	Rural Eddy Co, NM	Rush:	☐
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes / No	Wet Ice:	Yes / No
Temperature (°C):	24.4/24.2	Thermometer ID	
Received Intact:	Yes / No	TWM-007	
Cooler Custody Seals:	Yes / No / N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes / No / N/A	Total Containers:	

ANALYSIS REQUEST

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

890-2098 Chain of Custody

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	Sample Comments
NH@Surface	Soil	3/17/22		-	1	X	X	X		
NH@1'				1'						
EH@Surface				-						
EH@1'				1'						
SH@Surface				-						
SH@1'				1'						
WH@Surface				-						
WH@1'				1'						

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/22 1327	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2098-1
SDG Number: Rural Eddy County NM

Login Number: 2098
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2098-1
SDG Number: Rural Eddy County NM

Login Number: 2098
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/18/22 11:38 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2099-1
Laboratory Sample Delivery Group: 15785
Client Project/Site: Bonanza 22-15

For:
Etech Environmental & Safety Solutions
PO BOX 62228
Midland, Texas 79711

Attn: Joel Lowry

JKramer

Authorized for release by:
3/30/2022 7:48:22 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Laboratory Job ID: 890-2099-1
SDG: 15785

Table of Contents

Definitions/Glossary

Client: Etech Environmental & Safety Solutions Job ID: 890-2099-1
Project/Site: Bonanza 22-15 SDG: 15785

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Job ID: 890-2099-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2099-1

Receipt
The samples were received on 3/17/2022 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 24.2°C

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: NDEF1 @ SURFACE (890-2099-1), EDEF1 @ SURFACE (890-2099-3), SDEF1 @ SURFACE (890-2099-5) and WDEF1 @ SURFACE (890-2099-7) at 500.0, 500.0, 500.0 and 500.0. Elevated reporting limits (RLs) are provided.

Method 8021B: Surrogate recovery for the following sample was outside control limits: WDEF1 @ SURFACE (890-2099-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: NDEF1 @ SURFACE (890-2099-1), EDEF1 @ SURFACE (890-2099-3), SDEF1 @ SURFACE (890-2099-5), WDEF1 @ SURFACE (890-2099-7), (890-2099-A-1-D MS) and (890-2099-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: NDEF1 @ SURFACE

Lab Sample ID: 890-2099-1
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.01	U	1.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500
Toluene	**1.12**		1.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500
Ethylbenzene	<1.01	U	1.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500
m-Xylene & p-Xylene	**4.16**		2.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500
o-Xylene	<1.01	U	1.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500
Xylenes, Total	**4.16**		2.01		mg/Kg		03/24/22 10:00	03/26/22 08:00	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*03/24/22 10:00*	*03/26/22 08:00*	*500*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/24/22 10:00*	*03/26/22 08:00*	*500*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**5.28**		2.01		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**32500**		249		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**5620**		49.8		mg/Kg		03/18/22 17:03	03/19/22 12:40	1
Diesel Range Organics (Over C10-C28)	**23000**		249		mg/Kg		03/18/22 17:03	03/19/22 19:51	5
Oil Range Organics (Over C28-C36)	**3910**		49.8		mg/Kg		03/18/22 17:03	03/19/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*198*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 12:40*	*1*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 19:51*	*5*
o-Terphenyl	*345*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 12:40*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 19:51*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**362**		4.95		mg/Kg			03/30/22 11:35	1

Client Sample ID: NDEF1 @ 4'

Lab Sample ID: 890-2099-2
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00331**		0.00199		mg/Kg		03/24/22 10:00	03/26/22 05:36	1
Toluene	**0.00723**		0.00199		mg/Kg		03/24/22 10:00	03/26/22 05:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 05:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/24/22 10:00	03/26/22 05:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 05:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/24/22 10:00	03/26/22 05:36	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: NDEF1 @ 4'

Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Lab Sample ID: 890-2099-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/24/22 10:00*	*03/26/22 05:36*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/24/22 10:00*	*03/26/22 05:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0105**		0.00398		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**441**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:03	03/19/22 14:48	1
Diesel Range Organics (Over C10-C28)	**170**		49.9		mg/Kg		03/18/22 17:03	03/19/22 14:48	1
Oil Range Organics (Over C28-C36)	**271**		49.9		mg/Kg		03/18/22 17:03	03/19/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*03/18/22 17:03*	*03/19/22 14:48*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/18/22 17:03*	*03/19/22 14:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.4**		5.04		mg/Kg			03/30/22 07:07	1

Client Sample ID: EDEF1 @ SURFACE

Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Lab Sample ID: 890-2099-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.998	U	0.998		mg/Kg		03/24/22 10:00	03/26/22 08:20	500
Toluene	**3.94**		0.998		mg/Kg		03/24/22 10:00	03/26/22 08:20	500
Ethylbenzene	**1.49**		0.998		mg/Kg		03/24/22 10:00	03/26/22 08:20	500
m-Xylene & p-Xylene	**12.9**		2.00		mg/Kg		03/24/22 10:00	03/26/22 08:20	500
o-Xylene	**3.63**		0.998		mg/Kg		03/24/22 10:00	03/26/22 08:20	500
Xylenes, Total	**16.5**		2.00		mg/Kg		03/24/22 10:00	03/26/22 08:20	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*03/24/22 10:00*	*03/26/22 08:20*	*500*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/24/22 10:00*	*03/26/22 08:20*	*500*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**22.0**		2.00		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**29600**		249		mg/Kg			03/21/22 09:51	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: EDEF1 @ SURFACE

Lab Sample ID: 890-2099-3
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	5410		249		mg/Kg		03/18/22 17:03	03/19/22 13:45	5
Diesel Range Organics (Over C10-C28)	20300		249		mg/Kg		03/18/22 17:03	03/19/22 13:45	5
Oil Range Organics (Over C28-C36)	3870		249		mg/Kg		03/18/22 17:03	03/19/22 13:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*184*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 13:45*	*5*
o-Terphenyl	*116*		*70 - 130*	*03/18/22 17:03*	*03/19/22 13:45*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2150		50.0		mg/Kg			03/30/22 08:10	10

Client Sample ID: EDEF1 @ 4'

Lab Sample ID: 890-2099-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00619		0.00200		mg/Kg		03/24/22 10:00	03/26/22 05:57	1
Toluene	0.0206		0.00200		mg/Kg		03/24/22 10:00	03/26/22 05:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 05:57	1
m-Xylene & p-Xylene	0.0136		0.00399		mg/Kg		03/24/22 10:00	03/26/22 05:57	1
o-Xylene	0.00249		0.00200		mg/Kg		03/24/22 10:00	03/26/22 05:57	1
Xylenes, Total	0.0161		0.00399		mg/Kg		03/24/22 10:00	03/26/22 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/24/22 10:00*	*03/26/22 05:57*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/24/22 10:00*	*03/26/22 05:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0429		0.00399		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	322		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 15:08	1
Diesel Range Organics (Over C10-C28)	127		50.0		mg/Kg		03/18/22 17:03	03/19/22 15:08	1
Oil Range Organics (Over C28-C36)	195		50.0		mg/Kg		03/18/22 17:03	03/19/22 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/18/22 17:03*	*03/19/22 15:08*	*1*
o-Terphenyl	*102*		*70 - 130*	*03/18/22 17:03*	*03/19/22 15:08*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: EDEF1 @ 4'

Lab Sample ID: 890-2099-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.3**		5.01		mg/Kg			03/30/22 08:19	1

Client Sample ID: SDEF1 @ SURFACE

Lab Sample ID: 890-2099-5
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.00	U	1.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500
Toluene	**3.27**		1.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500
Ethylbenzene	**2.00**		1.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500
m-Xylene & p-Xylene	**15.8**		2.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500
o-Xylene	**4.65**		1.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500
Xylenes, Total	**20.5**		2.00		mg/Kg		03/24/22 10:00	03/26/22 12:55	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*03/24/22 10:00*	*03/26/22 12:55*	*500*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/24/22 10:00*	*03/26/22 12:55*	*500*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**25.7**		2.00		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**28200**		250		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**4030**		250		mg/Kg		03/18/22 17:03	03/19/22 14:06	5
Diesel Range Organics (Over C10-C28)	**21500**		250		mg/Kg		03/18/22 17:03	03/19/22 14:06	5
Oil Range Organics (Over C28-C36)	**2660**		250		mg/Kg		03/18/22 17:03	03/19/22 14:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*191*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 14:06*	*5*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 14:06*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**129**		4.97		mg/Kg			03/30/22 11:43	1

Client Sample ID: SDFE1 @ 4'

Lab Sample ID: 890-2099-6
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/24/22 10:00	03/26/22 06:17	1
Toluene	**0.00354**		0.00198		mg/Kg		03/24/22 10:00	03/26/22 06:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/24/22 10:00	03/26/22 06:17	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: SDFE1 @ 4'

Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Lab Sample ID: 890-2099-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/24/22 10:00	03/26/22 06:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/24/22 10:00	03/26/22 06:17	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/24/22 10:00	03/26/22 06:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:17*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**296**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 15:28	1
Diesel Range Organics (Over C10-C28)	**156**		50.0		mg/Kg		03/18/22 17:03	03/19/22 15:28	1
Oil Range Organics (Over C28-C36)	**140**		50.0		mg/Kg		03/18/22 17:03	03/19/22 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/18/22 17:03*	*03/19/22 15:28*	*1*
o-Terphenyl	*102*		*70 - 130*	*03/18/22 17:03*	*03/19/22 15:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.3**		5.05		mg/Kg			03/30/22 08:54	1

Client Sample ID: WDEF1 @ SURFACE

Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Lab Sample ID: 890-2099-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.992	U	0.992		mg/Kg		03/24/22 10:00	03/26/22 13:15	500
Toluene	**9.96**		0.992		mg/Kg		03/24/22 10:00	03/26/22 13:15	500
Ethylbenzene	**2.51**		0.992		mg/Kg		03/24/22 10:00	03/26/22 13:15	500
m-Xylene & p-Xylene	**18.9**		1.98		mg/Kg		03/24/22 10:00	03/26/22 13:15	500
o-Xylene	**4.17**		0.992		mg/Kg		03/24/22 10:00	03/26/22 13:15	500
Xylenes, Total	**23.1**		1.98		mg/Kg		03/24/22 10:00	03/26/22 13:15	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*03/24/22 10:00*	*03/26/22 13:15*	*500*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*03/24/22 10:00*	*03/26/22 13:15*	*500*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**35.5**		1.98		mg/Kg			03/28/22 12:32	1

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Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: WDEF1 @ SURFACE

Lab Sample ID: 890-2099-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**32000**		250		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**6150**		250		mg/Kg		03/18/22 17:03	03/19/22 14:28	5
Diesel Range Organics (Over C10-C28)	**22600**		250		mg/Kg		03/18/22 17:03	03/19/22 14:28	5
Oil Range Organics (Over C28-C36)	**3200**		250		mg/Kg		03/18/22 17:03	03/19/22 14:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*191*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 14:28*	*5*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*03/18/22 17:03*	*03/19/22 14:28*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1680**		49.9		mg/Kg			03/30/22 12:10	10

Client Sample ID: WDEF1 @ 4'

Lab Sample ID: 890-2099-8
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00293**		0.00199		mg/Kg		03/24/22 10:00	03/26/22 06:38	1
Toluene	**0.00896**		0.00199		mg/Kg		03/24/22 10:00	03/26/22 06:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 06:38	1
m-Xylene & p-Xylene	**0.00456**		0.00398		mg/Kg		03/24/22 10:00	03/26/22 06:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 06:38	1
Xylenes, Total	**0.00456**		0.00398		mg/Kg		03/24/22 10:00	03/26/22 06:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:38*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0165**		0.00398		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**218**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:03	03/19/22 15:48	1
Diesel Range Organics (Over C10-C28)	**84.6**		49.9		mg/Kg		03/18/22 17:03	03/19/22 15:48	1
Oil Range Organics (Over C28-C36)	**133**		49.9		mg/Kg		03/18/22 17:03	03/19/22 15:48	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 890-2099-1
Project/Site: Bonanza 22-15
SDG: 15785

Client Sample ID: WDEF1 @ 4'
Lab Sample ID: 890-2099-8
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	03/18/22 17:03	03/19/22 15:48	1
o-Terphenyl	92		70 - 130	03/18/22 17:03	03/19/22 15:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.6		5.00		mg/Kg			03/30/22 09:30	1

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2099-1	NDEF1 @ SURFACE	96	90
890-2099-2	NDEF1 @ 4'	97	100
890-2099-3	EDEF1 @ SURFACE	92	95
890-2099-4	EDEF1 @ 4'	98	98
890-2099-5	SDEF1 @ SURFACE	90	93
890-2099-6	SDFE1 @ 4'	113	100
890-2099-7	WDEF1 @ SURFACE	76	67 S1-
890-2099-8	WDEF1 @ 4'	104	96
890-2106-A-1-Q MS	Matrix Spike	81	78
890-2106-A-1-R MSD	Matrix Spike Duplicate	105	105
LCS 880-22073/1-A	Lab Control Sample	94	103
LCSD 880-22073/2-A	Lab Control Sample Dup	100	105
MB 880-22073/5-B	Method Blank	99	100
MB 880-22332/8	Method Blank	97	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2099-1	NDEF1 @ SURFACE	207 S1+	131 S1+
890-2099-1	NDEF1 @ SURFACE	198 S1+	345 S1+
890-2099-1 MS	NDEF1 @ SURFACE	193 S1+	340 S1+
890-2099-1 MSD	NDEF1 @ SURFACE	187 S1+	327 S1+
890-2099-2	NDEF1 @ 4'	123	114
890-2099-3	EDEF1 @ SURFACE	184 S1+	116
890-2099-4	EDEF1 @ 4'	106	102
890-2099-5	SDEF1 @ SURFACE	191 S1+	139 S1+
890-2099-6	SDFE1 @ 4'	108	102
890-2099-7	WDEF1 @ SURFACE	191 S1+	145 S1+
890-2099-8	WDEF1 @ 4'	97	92
LCS 880-21924/2-A	Lab Control Sample	111	113
LCSD 880-21924/3-A	Lab Control Sample Dup	95	94
MB 880-21924/1-A	Method Blank	98	101

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22073/5-B
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 04:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/24/22 10:00*	*03/26/22 04:47*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/24/22 10:00*	*03/26/22 04:47*	*1*

Lab Sample ID: LCS 880-22073/1-A
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22073

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07627		mg/Kg		76	70 - 130		
Toluene			0.100	0.07501		mg/Kg		75	70 - 130		
Ethylbenzene			0.100	0.07727		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1770		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.08902		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-22073/2-A
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22073

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08611		mg/Kg		86	70 - 130	12	35
Toluene			0.100	0.08509		mg/Kg		85	70 - 130	13	35
Ethylbenzene			0.100	0.08818		mg/Kg		88	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.2022		mg/Kg		101	70 - 130	13	35
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-2106-A-1-Q MS
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F2 F1	0.100	0.02974	F1	mg/Kg		30	70 - 130		
Toluene	<0.00199	U F2 F1	0.100	0.03585	F1	mg/Kg		36	70 - 130		

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2106-A-1-Q MS
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F2 F1	0.100	0.04098	F1	mg/Kg		41	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.201	0.1044	F1	mg/Kg		52	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.04741	F1	mg/Kg		47	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: 890-2106-A-1-R MSD
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 22073

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0992	0.07852	F2	mg/Kg		79	70 - 130	90	35
Toluene	<0.00199	U F2 F1	0.0992	0.07735	F2	mg/Kg		78	70 - 130	73	35
Ethylbenzene	<0.00199	U F2 F1	0.0992	0.07991	F2	mg/Kg		81	70 - 130	64	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.1900	F2	mg/Kg		96	70 - 130	58	35
o-Xylene	<0.00199	U F2 F1	0.0992	0.09568	F2	mg/Kg		96	70 - 130	67	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: MB 880-22332/8
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Toluene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			03/25/22 17:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			03/25/22 17:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*03/25/22 17:11*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*03/25/22 17:11*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-21924/1-A
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-21924/1-A
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/18/22 17:03*	*03/19/22 11:36*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/18/22 17:03*	*03/19/22 11:36*	*1*

Lab Sample ID: LCS 880-21924/2-A
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	830.9		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1109		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: LCSD 880-21924/3-A
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	712.5		mg/Kg		71	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	920.6		mg/Kg		92	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: 890-2099-1 MS
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: NDEF1 @ SURFACE
Prep Type: Total/NA
Prep Batch: 21924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	5620		998	7016	4	mg/Kg		140	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*193*	*S1+*	*70 - 130*
o-Terphenyl	*340*	*S1+*	*70 - 130*

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2099-1 MSD
Matrix: Solid
Analysis Batch: 21941

Client Sample ID: NDEF1 @ SURFACE
Prep Type: Total/NA
Prep Batch: 21924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	5620		999	6564	4	mg/Kg		95	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*187*	*S1+*	*70 - 130*
o-Terphenyl	*327*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22034/1-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/30/22 05:03	1

Lab Sample ID: LCS 880-22034/2-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	247.5		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-22034/3-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	246.2		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 890-2099-5 MS
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: SDEF1 @ SURFACE
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	129		249	368.0		mg/Kg		96	90 - 110

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

GC VOA

Prep Batch: 22073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	5035	
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	5035	
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	5035	
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	5035	
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	5035	
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	5035	
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	5035	
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	5035	
MB 880-22073/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-22073/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22073/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2106-A-1-Q MS	Matrix Spike	Total/NA	Solid	5035	
890-2106-A-1-R MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 22332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	8021B	22073
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	8021B	22073
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	8021B	22073
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	8021B	22073
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	8021B	22073
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	8021B	22073
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	8021B	22073
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	8021B	22073
MB 880-22073/5-B	Method Blank	Total/NA	Solid	8021B	22073
MB 880-22332/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-22073/1-A	Lab Control Sample	Total/NA	Solid	8021B	22073
LCSD 880-22073/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22073
890-2106-A-1-Q MS	Matrix Spike	Total/NA	Solid	8021B	22073
890-2106-A-1-R MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	22073

Analysis Batch: 22485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	Total BTEX	
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	Total BTEX	
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	Total BTEX	
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	Total BTEX	
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	Total BTEX	
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	Total BTEX	
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	Total BTEX	
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	8015NM Prep	
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	8015NM Prep	
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

GC Semi VOA (Continued)

Prep Batch: 21924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	8015NM Prep	
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	8015NM Prep	
MB 880-21924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2099-1 MS	NDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	
890-2099-1 MSD	NDEF1 @ SURFACE	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	8015B NM	21924
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	8015B NM	21924
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	8015B NM	21924
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	8015B NM	21924
MB 880-21924/1-A	Method Blank	Total/NA	Solid	8015B NM	21924
LCS 880-21924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21924
LCSD 880-21924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21924
890-2099-1 MS	NDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924
890-2099-1 MSD	NDEF1 @ SURFACE	Total/NA	Solid	8015B NM	21924

Analysis Batch: 21998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Total/NA	Solid	8015 NM	
890-2099-2	NDEF1 @ 4'	Total/NA	Solid	8015 NM	
890-2099-3	EDEF1 @ SURFACE	Total/NA	Solid	8015 NM	
890-2099-4	EDEF1 @ 4'	Total/NA	Solid	8015 NM	
890-2099-5	SDEF1 @ SURFACE	Total/NA	Solid	8015 NM	
890-2099-6	SDFE1 @ 4'	Total/NA	Solid	8015 NM	
890-2099-7	WDEF1 @ SURFACE	Total/NA	Solid	8015 NM	
890-2099-8	WDEF1 @ 4'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Soluble	Solid	DI Leach	
890-2099-2	NDEF1 @ 4'	Soluble	Solid	DI Leach	
890-2099-3	EDEF1 @ SURFACE	Soluble	Solid	DI Leach	
890-2099-4	EDEF1 @ 4'	Soluble	Solid	DI Leach	
890-2099-5	SDEF1 @ SURFACE	Soluble	Solid	DI Leach	
890-2099-6	SDFE1 @ 4'	Soluble	Solid	DI Leach	
890-2099-7	WDEF1 @ SURFACE	Soluble	Solid	DI Leach	
890-2099-8	WDEF1 @ 4'	Soluble	Solid	DI Leach	
MB 880-22034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

HPLC/IC (Continued)

Leach Batch: 22034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2099-5 MS	SDEF1 @ SURFACE	Soluble	Solid	DI Leach	
890-2099-5 MSD	SDEF1 @ SURFACE	Soluble	Solid	DI Leach	

Analysis Batch: 22387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-1	NDEF1 @ SURFACE	Soluble	Solid	300.0	22034
890-2099-2	NDEF1 @ 4'	Soluble	Solid	300.0	22034
890-2099-3	EDEF1 @ SURFACE	Soluble	Solid	300.0	22034
890-2099-4	EDEF1 @ 4'	Soluble	Solid	300.0	22034
890-2099-5	SDEF1 @ SURFACE	Soluble	Solid	300.0	22034
890-2099-6	SDFE1 @ 4'	Soluble	Solid	300.0	22034
890-2099-7	WDEF1 @ SURFACE	Soluble	Solid	300.0	22034
890-2099-8	WDEF1 @ 4'	Soluble	Solid	300.0	22034
MB 880-22034/1-A	Method Blank	Soluble	Solid	300.0	22034
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	300.0	22034
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22034
890-2099-5 MS	SDEF1 @ SURFACE	Soluble	Solid	300.0	22034
890-2099-5 MSD	SDEF1 @ SURFACE	Soluble	Solid	300.0	22034

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: NDEF1 @ SURFACE

Lab Sample ID: 890-2099-1
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	22332	03/26/22 08:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 12:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		5			21941	03/19/22 19:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 11:35	CH	XEN MID

Client Sample ID: NDEF1 @ 4'

Lab Sample ID: 890-2099-2
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 05:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 07:07	CH	XEN MID

Client Sample ID: EDEF1 @ SURFACE

Lab Sample ID: 890-2099-3
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	22332	03/26/22 08:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		5			21941	03/19/22 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		10			22387	03/30/22 08:10	CH	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: EDEF1 @ 4'

Lab Sample ID: 890-2099-4
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 05:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 15:08	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 08:19	CH	XEN MID

Client Sample ID: SDEF1 @ SURFACE

Lab Sample ID: 890-2099-5
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	22332	03/26/22 12:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		5			21941	03/19/22 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 11:43	CH	XEN MID

Client Sample ID: SDFE1 @ 4'

Lab Sample ID: 890-2099-6
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 06:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 15:28	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 08:54	CH	XEN MID

Client Sample ID: WDEF1 @ SURFACE

Lab Sample ID: 890-2099-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	22332	03/26/22 13:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Client Sample ID: WDEF1 @ SURFACE

Lab Sample ID: 890-2099-7
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		5			21941	03/19/22 14:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		10			22387	03/30/22 12:10	CH	XEN MID

Client Sample ID: WDEF1 @ 4'

Lab Sample ID: 890-2099-8
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 06:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22485	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 15:48	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 09:30	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Job ID: 890-2099-1
Project/Site: Bonanza 22-15
SDG: 15785

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-1
SDG: 15785

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2099-1	NDEF1 @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-2	NDEF1 @ 4'	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-3	EDEF1 @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-4	EDEF1 @ 4'	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-5	SDEF1 @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-6	SDFE1 @ 4'	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-7	WDEF1 @ SURFACE	Solid	03/17/22 00:00	03/17/22 13:27
890-2099-8	WDEF1 @ 4'	Solid	03/17/22 00:00	03/17/22 13:27

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

890-2099 Chain of Custody

1 of 1

www.xenco.com Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	Camille Bryant
Company Name:	Etech Environmental and Safety	Company Name:	Plains Pipeline
Address:	2617 West Marland	Address:	
City, State ZIP:	Hobbs, NM 88240	City, State ZIP:	
Phone:	(575) 264-9884	Email:	Email Results to: PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Bonanza 22-15	Turn Around	
Project Number:	15785	Routine:	X
Project Location	Rural Eddy Co., NM	Rush:	☐
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	24.4 24.3	Thermometer ID	IR2
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	BTEX (8021)	TPH (Modified Ext.)	Cl- (E300)
NDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
NDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
EDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
EDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
SDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
SDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
WDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
WDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X

ANALYSIS REQUEST

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471 : Hg**

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3.17.22	2		
3		1327			
5			6		

Revised Date101419 Rev. 2019.1

3/30/2022

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2099-1
SDG Number: 15785

Login Number: 2099
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2099-1
SDG Number: 15785

Login Number: 2099
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/18/22 11:38 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2099-2
Laboratory Sample Delivery Group: 15785
Client Project/Site: Bonanza 22-15

For:
Etech Environmental & Safety Solutions
PO BOX 62228
Midland, Texas 79711

Attn: Joel Lowry

JKramer

Authorized for release by:
3/30/2022 7:49:02 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Laboratory Job ID: 890-2099-2
SDG: 15785

Table of Contents

Definitions/Glossary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Job ID: 890-2099-2

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2099-2

Receipt
The samples were received on 3/17/2022 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 24.2°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: NW

Lab Sample ID: 890-2099-9
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 06:58	1
Toluene	**0.00207**		0.00202		mg/Kg		03/24/22 10:00	03/26/22 06:58	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 06:58	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/24/22 10:00	03/26/22 06:58	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 06:58	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/24/22 10:00	03/26/22 06:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:58*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/24/22 10:00*	*03/26/22 06:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 16:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 16:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/18/22 17:03*	*03/19/22 16:08*	*1*
o-Terphenyl	*93*		*70 - 130*	*03/18/22 17:03*	*03/19/22 16:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**263**		5.01		mg/Kg			03/30/22 09:39	1

Client Sample ID: EW

Lab Sample ID: 890-2099-10
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 07:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 07:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 07:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/24/22 10:00	03/26/22 07:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 07:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/24/22 10:00	03/26/22 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/24/22 10:00*	*03/26/22 07:19*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/24/22 10:00*	*03/26/22 07:19*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: EW

Lab Sample ID: 890-2099-10
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**261**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 16:29	1
Diesel Range Organics (Over C10-C28)	**146**		50.0		mg/Kg		03/18/22 17:03	03/19/22 16:29	1
Oil Range Organics (Over C28-C36)	**115**		50.0		mg/Kg		03/18/22 17:03	03/19/22 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*03/18/22 17:03*	*03/19/22 16:29*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/18/22 17:03*	*03/19/22 16:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.9**		5.00		mg/Kg			03/30/22 09:48	1

Client Sample ID: SW

Lab Sample ID: 890-2099-11
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 07:39	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 07:39	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 07:39	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/24/22 10:00	03/26/22 07:39	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/24/22 10:00	03/26/22 07:39	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/24/22 10:00	03/26/22 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/24/22 10:00*	*03/26/22 07:39*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/24/22 10:00*	*03/26/22 07:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**282**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 17:09	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: SW

Lab Sample ID: 890-2099-11
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**186**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:09	1
Oil Range Organics (Over C28-C36)	**96.3**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:09*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82.5**		4.99		mg/Kg			03/30/22 13:47	1

Client Sample ID: WW

Lab Sample ID: 890-2099-12
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/24/22 10:00	03/26/22 10:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/24/22 10:00	03/26/22 10:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:11*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**161**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 17:29	1
Diesel Range Organics (Over C10-C28)	**72.1**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:29	1
Oil Range Organics (Over C28-C36)	**89.2**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:29*	*1*
o-Terphenyl	*110*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:29*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: WW
Lab Sample ID: 890-2099-12
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**234**		25.0		mg/Kg			03/30/22 10:05	5

Client Sample ID: FL1 @ 3'
Lab Sample ID: 890-2099-13
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:31	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:31	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/24/22 10:00	03/26/22 10:31	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/24/22 10:00	03/26/22 10:31	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/24/22 10:00	03/26/22 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:31*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**440**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 17:49	1
Diesel Range Organics (Over C10-C28)	**355**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:49	1
Oil Range Organics (Over C28-C36)	**85.4**		50.0		mg/Kg		03/18/22 17:03	03/19/22 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:49*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/18/22 17:03*	*03/19/22 17:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**139**		4.96		mg/Kg			03/30/22 12:28	1

Client Sample ID: FL2 @ 3'
Lab Sample ID: 890-2099-14
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 10:52	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: FL2 @ 3'

Lab Sample ID: 890-2099-14
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 10:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/22 10:00	03/26/22 10:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/24/22 10:00	03/26/22 10:52	1
o-Xylene	**0.00430**		0.00199		mg/Kg		03/24/22 10:00	03/26/22 10:52	1
Xylenes, Total	**0.00430**		0.00398		mg/Kg		03/24/22 10:00	03/26/22 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:52*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/24/22 10:00*	*03/26/22 10:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00430**		0.00398		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**408**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**56.0**		50.0		mg/Kg		03/18/22 17:03	03/19/22 18:10	1
Diesel Range Organics (Over C10-C28)	**270**		50.0		mg/Kg		03/18/22 17:03	03/19/22 18:10	1
Oil Range Organics (Over C28-C36)	**82.2**		50.0		mg/Kg		03/18/22 17:03	03/19/22 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:10*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**183**		5.00		mg/Kg			03/30/22 12:36	1

Client Sample ID: FL3 @ 3'

Lab Sample ID: 890-2099-15
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 11:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/24/22 10:00*	*03/26/22 11:12*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: FL3 @ 3'

Lab Sample ID: 890-2099-15
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/24/22 10:00*	*03/26/22 11:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/28/22 12:32	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**282**		50.0		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/22 17:03	03/19/22 18:30	1
Diesel Range Organics (Over C10-C28)	**205**		50.0		mg/Kg		03/18/22 17:03	03/19/22 18:30	1
Oil Range Organics (Over C28-C36)	**76.6**		50.0		mg/Kg		03/18/22 17:03	03/19/22 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*114*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:30*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**173**		4.95		mg/Kg			03/29/22 15:05	1

Client Sample ID: FL4 @ 3'

Lab Sample ID: 890-2099-16
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 11:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 11:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/24/22 10:00*	*03/26/22 11:33*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/24/22 10:00*	*03/26/22 11:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/28/22 12:32	1

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: FL4 @ 3'

Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27
Sample Depth: 3

Lab Sample ID: 890-2099-16

Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**275**		49.9		mg/Kg			03/21/22 09:51	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/22 17:03	03/19/22 18:50	1
Diesel Range Organics (Over C10-C28)	**203**		49.9		mg/Kg		03/18/22 17:03	03/19/22 18:50	1
Oil Range Organics (Over C28-C36)	**72.3**		49.9		mg/Kg		03/18/22 17:03	03/19/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:50*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/18/22 17:03*	*03/19/22 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**172**		5.04		mg/Kg			03/29/22 15:14	1

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2099-9	NW	98	100
890-2099-10	EW	104	101
890-2099-11	SW	101	104
890-2099-12	WW	108	105
890-2099-13	FL1 @ 3'	109	99
890-2099-14	FL2 @ 3'	102	103
890-2099-15	FL3 @ 3'	115	98
890-2099-16	FL4 @ 3'	108	103
890-2106-A-1-Q MS	Matrix Spike	81	78
890-2106-A-1-R MSD	Matrix Spike Duplicate	105	105
LCS 880-22073/1-A	Lab Control Sample	94	103
LCSD 880-22073/2-A	Lab Control Sample Dup	100	105
MB 880-22073/5-B	Method Blank	99	100
MB 880-22332/8	Method Blank	97	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2099-9	NW	93	93
890-2099-10	EW	116	113
890-2099-11	SW	121	122
890-2099-12	WW	111	110
890-2099-13	FL1 @ 3'	106	105
890-2099-14	FL2 @ 3'	120	120
890-2099-15	FL3 @ 3'	114	111
890-2099-16	FL4 @ 3'	123	122

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22073/5-B
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/22 10:00	03/26/22 04:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/24/22 10:00	03/26/22 04:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/24/22 10:00*	*03/26/22 04:47*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/24/22 10:00*	*03/26/22 04:47*	*1*

Lab Sample ID: LCS 880-22073/1-A
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22073

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07627		mg/Kg		76	70 - 130		
Toluene			0.100	0.07501		mg/Kg		75	70 - 130		
Ethylbenzene			0.100	0.07727		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1770		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.08902		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-22073/2-A
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22073

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08611		mg/Kg		86	70 - 130	12	35
Toluene			0.100	0.08509		mg/Kg		85	70 - 130	13	35
Ethylbenzene			0.100	0.08818		mg/Kg		88	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.2022		mg/Kg		101	70 - 130	13	35
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-2106-A-1-Q MS
Matrix: Solid
Analysis Batch: 22332

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F2 F1	0.100	0.02974	F1	mg/Kg		30	70 - 130		
Toluene	<0.00199	U F2 F1	0.100	0.03585	F1	mg/Kg		36	70 - 130		

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2106-A-1-Q MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22332 — **Prep Batch: 22073**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F2 F1	0.100	0.04098	F1	mg/Kg		41	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.201	0.1044	F1	mg/Kg		52	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.04741	F1	mg/Kg		47	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: 890-2106-A-1-R MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22332 — **Prep Batch: 22073**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0992	0.07852	F2	mg/Kg		79	70 - 130	90	35
Toluene	<0.00199	U F2 F1	0.0992	0.07735	F2	mg/Kg		78	70 - 130	73	35
Ethylbenzene	<0.00199	U F2 F1	0.0992	0.07991	F2	mg/Kg		81	70 - 130	64	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.1900	F2	mg/Kg		96	70 - 130	58	35
o-Xylene	<0.00199	U F2 F1	0.0992	0.09568	F2	mg/Kg		96	70 - 130	67	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: MB 880-22332/8 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Toluene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			03/25/22 17:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			03/25/22 17:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			03/25/22 17:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*03/25/22 17:11*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*03/25/22 17:11*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22034/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/30/22 05:03	1

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-22034/2-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	247.5		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-22034/3-A
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	246.2		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 890-2099-A-5-H MS
Matrix: Solid
Analysis Batch: 22387

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	129		249	368.0		mg/Kg		96	90 - 110		

Lab Sample ID: MB 880-22475/1-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/28/22 15:06	1

Lab Sample ID: LCS 880-22475/2-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.0		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-22475/3-A
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	246.2		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-2141-A-1-C MS
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	72.0		249	313.1		mg/Kg		97	90 - 110		

Lab Sample ID: 890-2141-A-1-D MSD
Matrix: Solid
Analysis Batch: 22476

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	72.0		249	313.9		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

GC VOA

Prep Batch: 22073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	5035	
890-2099-10	EW	Total/NA	Solid	5035	
890-2099-11	SW	Total/NA	Solid	5035	
890-2099-12	WW	Total/NA	Solid	5035	
890-2099-13	FL1 @ 3'	Total/NA	Solid	5035	
890-2099-14	FL2 @ 3'	Total/NA	Solid	5035	
890-2099-15	FL3 @ 3'	Total/NA	Solid	5035	
890-2099-16	FL4 @ 3'	Total/NA	Solid	5035	
MB 880-22073/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-22073/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22073/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2106-A-1-Q MS	Matrix Spike	Total/NA	Solid	5035	
890-2106-A-1-R MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 22332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	8021B	22073
890-2099-10	EW	Total/NA	Solid	8021B	22073
890-2099-11	SW	Total/NA	Solid	8021B	22073
890-2099-12	WW	Total/NA	Solid	8021B	22073
890-2099-13	FL1 @ 3'	Total/NA	Solid	8021B	22073
890-2099-14	FL2 @ 3'	Total/NA	Solid	8021B	22073
890-2099-15	FL3 @ 3'	Total/NA	Solid	8021B	22073
890-2099-16	FL4 @ 3'	Total/NA	Solid	8021B	22073
MB 880-22073/5-B	Method Blank	Total/NA	Solid	8021B	22073
MB 880-22332/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-22073/1-A	Lab Control Sample	Total/NA	Solid	8021B	22073
LCSD 880-22073/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22073
890-2106-A-1-Q MS	Matrix Spike	Total/NA	Solid	8021B	22073
890-2106-A-1-R MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	22073

Analysis Batch: 22486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	Total BTEX	
890-2099-10	EW	Total/NA	Solid	Total BTEX	
890-2099-11	SW	Total/NA	Solid	Total BTEX	
890-2099-12	WW	Total/NA	Solid	Total BTEX	
890-2099-13	FL1 @ 3'	Total/NA	Solid	Total BTEX	
890-2099-14	FL2 @ 3'	Total/NA	Solid	Total BTEX	
890-2099-15	FL3 @ 3'	Total/NA	Solid	Total BTEX	
890-2099-16	FL4 @ 3'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	8015NM Prep	
890-2099-10	EW	Total/NA	Solid	8015NM Prep	
890-2099-11	SW	Total/NA	Solid	8015NM Prep	
890-2099-12	WW	Total/NA	Solid	8015NM Prep	
890-2099-13	FL1 @ 3'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

GC Semi VOA (Continued)

Prep Batch: 21924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-14	FL2 @ 3'	Total/NA	Solid	8015NM Prep	
890-2099-15	FL3 @ 3'	Total/NA	Solid	8015NM Prep	
890-2099-16	FL4 @ 3'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	8015B NM	21924
890-2099-10	EW	Total/NA	Solid	8015B NM	21924
890-2099-11	SW	Total/NA	Solid	8015B NM	21924
890-2099-12	WW	Total/NA	Solid	8015B NM	21924
890-2099-13	FL1 @ 3'	Total/NA	Solid	8015B NM	21924
890-2099-14	FL2 @ 3'	Total/NA	Solid	8015B NM	21924
890-2099-15	FL3 @ 3'	Total/NA	Solid	8015B NM	21924
890-2099-16	FL4 @ 3'	Total/NA	Solid	8015B NM	21924

Analysis Batch: 21998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Total/NA	Solid	8015 NM	
890-2099-10	EW	Total/NA	Solid	8015 NM	
890-2099-11	SW	Total/NA	Solid	8015 NM	
890-2099-12	WW	Total/NA	Solid	8015 NM	
890-2099-13	FL1 @ 3'	Total/NA	Solid	8015 NM	
890-2099-14	FL2 @ 3'	Total/NA	Solid	8015 NM	
890-2099-15	FL3 @ 3'	Total/NA	Solid	8015 NM	
890-2099-16	FL4 @ 3'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Soluble	Solid	DI Leach	
890-2099-10	EW	Soluble	Solid	DI Leach	
890-2099-11	SW	Soluble	Solid	DI Leach	
890-2099-12	WW	Soluble	Solid	DI Leach	
890-2099-13	FL1 @ 3'	Soluble	Solid	DI Leach	
890-2099-14	FL2 @ 3'	Soluble	Solid	DI Leach	
MB 880-22034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2099-A-5-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2099-A-5-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 22387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-9	NW	Soluble	Solid	300.0	22034
890-2099-10	EW	Soluble	Solid	300.0	22034
890-2099-11	SW	Soluble	Solid	300.0	22034
890-2099-12	WW	Soluble	Solid	300.0	22034
890-2099-13	FL1 @ 3'	Soluble	Solid	300.0	22034
890-2099-14	FL2 @ 3'	Soluble	Solid	300.0	22034
MB 880-22034/1-A	Method Blank	Soluble	Solid	300.0	22034

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

HPLC/IC (Continued)

Analysis Batch: 22387 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-22034/2-A	Lab Control Sample	Soluble	Solid	300.0	22034
LCSD 880-22034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22034
890-2099-A-5-H MS	Matrix Spike	Soluble	Solid	300.0	22034
890-2099-A-5-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22034

Leach Batch: 22475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-15	FL3 @ 3'	Soluble	Solid	DI Leach	
890-2099-16	FL4 @ 3'	Soluble	Solid	DI Leach	
MB 880-22475/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22475/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22475/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2141-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2141-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 22476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2099-15	FL3 @ 3'	Soluble	Solid	300.0	22475
890-2099-16	FL4 @ 3'	Soluble	Solid	300.0	22475
MB 880-22475/1-A	Method Blank	Soluble	Solid	300.0	22475
LCS 880-22475/2-A	Lab Control Sample	Soluble	Solid	300.0	22475
LCSD 880-22475/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22475
890-2141-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	22475
890-2141-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22475

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Client Sample ID: NW

Lab Sample ID: 890-2099-9
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 06:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 16:08	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 09:39	CH	XEN MID

Client Sample ID: EW

Lab Sample ID: 890-2099-10
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 07:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 16:29	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 09:48	CH	XEN MID

Client Sample ID: SW

Lab Sample ID: 890-2099-11
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 07:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 17:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 13:47	CH	XEN MID

Client Sample ID: WW

Lab Sample ID: 890-2099-12
Matrix: Solid
Date Collected: 03/17/22 00:00
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 10:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Job ID: 890-2099-2
Project/Site: Bonanza 22-15
SDG: 15785

Client Sample ID: WW
Lab Sample ID: 890-2099-12
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 17:29	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		5			22387	03/30/22 10:05	CH	XEN MID

Client Sample ID: FL1 @ 3'
Lab Sample ID: 890-2099-13
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 10:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 17:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 12:28	CH	XEN MID

Client Sample ID: FL2 @ 3'
Lab Sample ID: 890-2099-14
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 10:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 18:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22034	03/21/22 11:42	CH	XEN MID
Soluble	Analysis	300.0		1			22387	03/30/22 12:36	CH	XEN MID

Client Sample ID: FL3 @ 3'
Lab Sample ID: 890-2099-15
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 11:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 18:30	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Job ID: 890-2099-2
Project/Site: Bonanza 22-15
SDG: 15785

Client Sample ID: FL3 @ 3'
Lab Sample ID: 890-2099-15
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	22475	03/28/22 11:29	CH	XEN MID
Soluble	Analysis	300.0		1			22476	03/29/22 15:05	CH	XEN MID

Client Sample ID: FL4 @ 3'
Lab Sample ID: 890-2099-16
Date Collected: 03/17/22 00:00
Matrix: Solid
Date Received: 03/17/22 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	22073	03/24/22 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22332	03/26/22 11:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22486	03/28/22 12:32	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21998	03/21/22 09:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21924	03/18/22 17:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21941	03/19/22 18:50	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22475	03/28/22 11:29	CH	XEN MID
Soluble	Analysis	300.0		1			22476	03/29/22 15:14	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Job ID: 890-2099-2
Project/Site: Bonanza 22-15
SDG: 15785

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Bonanza 22-15

Job ID: 890-2099-2
SDG: 15785

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2099-9	NW	Solid	03/17/22 00:00	03/17/22 13:27	
890-2099-10	EW	Solid	03/17/22 00:00	03/17/22 13:27	
890-2099-11	SW	Solid	03/17/22 00:00	03/17/22 13:27	
890-2099-12	WW	Solid	03/17/22 00:00	03/17/22 13:27	
890-2099-13	FL1 @ 3'	Solid	03/17/22 00:00	03/17/22 13:27	3
890-2099-14	FL2 @ 3'	Solid	03/17/22 00:00	03/17/22 13:27	3
890-2099-15	FL3 @ 3'	Solid	03/17/22 00:00	03/17/22 13:27	3
890-2099-16	FL4 @ 3'	Solid	03/17/22 00:00	03/17/22 13:27	3

XENCO LABORATORIES

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

890-2099 Chain of Custody

1 of 1

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Project Manager:	Joel Lowry	Bill to: (if different)	Camille Bryant
Company Name:	Etech Environmental and Safety	Company Name:	Plains Pipeline
Address:	2617 West Marland	Address:	
City, State ZIP:	Hobbs, NM 88240	City, State ZIP:	
Phone:	(575) 264-9884 Email:	Email Results to: PM@etechenv.com + Client	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Bonanza 22-15	Turn Around	
Project Number:	15785	Routine:	X
Project Location	Rural Eddy Co., NM	Rush:	☐
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	24.4 24.3	Thermometer ID		
Received Intact:	Yes No	IR2		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	BTEX (8021)	TPH (Modified Ext.)	Cl- (E300)
NDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
NDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
EDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
EDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
SDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
SDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X
WDEF1 @ Surface	Soil	3/17/2022		0'	1/NO	X	X	X
WDEF1 @ 4'	Soil	3/17/2022		4'	1/NO	X	X	X

ANALYSIS REQUEST

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4;30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joel Lowry		3.17.22	2		
3		1327			
5			6		

Revised Date101419 Rev. 2019.1

XENCO LABORATORIES

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Wo

890-2099 Chain of Custody

3/30/2022

www.xenco.com Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	Camille Bryant
Company Name:	Etech Environmental and Safety	Company Name:	Plains Pipeline
Address:	2617 West Marland	Address:	
City, State ZIP:	Hobbs, NM 88240	City, State ZIP:	
Phone:	(575) 264-9884	Email:	Email Results to: PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Bonanza 22-15	Turn Around	
Project Number:	15785	Routine:	X
Project Location	Rural Eddy Co., NM	Rush:	
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	24.4/24.2	Thermometer ID		
Received Intact:	(Yes) No	IR90		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	BTEX (8021)	TPH (Modified Ext.)	Cl- (E300)	Sample Comments
NW	Soil	3/17/2022		-	1/NO	X	X	X	
EW	Soil	3/17/2022		-	1/NO	X	X	X	
SW	Soil	3/17/2022		-	1/NO	X	X	X	
WW	Soil	3/17/2022		-	1/NO	X	X	X	
FL1 @ 3'	Soil	3/17/2022		3'	1/NO	X	X	X	
FL2 @ 3'	Soil	3/17/2022		3'	1/NO	X	X	X	
FL3 @ 3'	Soil	3/17/2022		3'	1/NO	X	X	X	
FL4 @ 3'	Soil	3/17/2022		3'	1/NO	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3.17.22	2		
3		1327	4		
5			6		

Revised Date101419 Rev. 2019.1

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2099-2
SDG Number: 15785

Login Number: 2099
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-2099-2
SDG Number: 15785

Login Number: 2099
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/18/22 11:38 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Appendix D
Photographic Log

Photographic Log

Photo Number: 1 **Photo Direction:** East **Photo GPS:** 32.11293, -104.08073 **Photo Description:** Picture of open excavation.	

Photo Number: 2 **Photo Direction:** East **Photo GPS:** 32.11293, -104.08073 **Photo Description:** Picture of open excavation.	

Appendix E
Regulatory Correspondence

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, October 28, 2022 8:38 AM
To: Karolanne Hudgens <KHudgens@paalp.com>
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 120341

To whom it may concern (c/o Karolanne Hudgens for PLAINS MARKETING L.P.),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2207347201,
for the following reasons:

- **The deferral request is denied. The report contains an incorrect Section Township Range. The OCD doesn't agree with depth to water determination. POD Number C 01522 has a well depth of 150', but no depth to water measurement. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling a borehole to determine the depth to groundwater.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 120341.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Robert Hamlet
575-748-1283
Robert.Hamlet@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 157654

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 157654
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Plains deferral requests to complete final remediation during any future major construction/alteration or decommissioning of the facility, whichever occurs first. Plains and Etech Environmental do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The areas requested for deferral are sample locations “EDEF1”, “NDEF1”, “SDEF1”, and “WDEF1”. The areas have been delineated and documented in the report. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	2/1/2023