Location:	Mis Amigos Tank Battery	
Spill Date:	12/18/2023	
Area 1		
Approximate Area =	5233.80	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	7.17	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**7.17**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**6.00**	**bbls**

District I
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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

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2335431615**
Incident Name	**NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Other (Specify) | Produced Water | Released: 7 BBL | Recovered: 6 BBL | Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/20/2023

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	*Not answered.*
What method was used to determine the depth to ground water	*Not answered.*
Did this release impact groundwater or surface water	*Not answered.*
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	*Not answered.*
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	*Not answered.*
An occupied permanent residence, school, hospital, institution, or church	*Not answered.*
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	*Not answered.*
Any other fresh water well or spring	*Not answered.*
Incorporated municipal boundaries or a defined municipal fresh water well field	*Not answered.*
A wetland	*Not answered.*
A subsurface mine	*Not answered.*
An (non-karst) unstable area	*Not answered.*
Categorize the risk of this well / site being in a karst geology	*Not answered.*
A 100-year floodplain	*Not answered.*
Did the release impact areas not on an exploration, development, production, or storage site	*Not answered.*

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	No
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	12/20/2023

ATTACHMENT 2

Table 1. Closure Criteria Worksheet			
Site Name: Mis Amigos Tank Battery			
Spill Coordinates: 32.254544, -103.609145			
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**>108**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	9,081	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	1,425	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	130,416	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	142,732	feet
	ii) Within 1000 feet of any fresh water well or spring	NO	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	11,985	feet
8	Distance from an area overlying a subsurface mine	91,872	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance to nearest unstable area	11	Miles
10	Distance from a 100-year Floodplain	67,164	feet
11	Soil Type	PU	
12	Ecological Classification	PU	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 04551 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: WSP USA

Contact: KALEI JENNINGS

User: XTO ENERGY INC

Contact: KYLE LITTRELL

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	699428	EXPL	2021-07-08	PMT	LOG	C 04551 POD1	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 04551 POD1	NA		4	4	3	31	23S	33E	630671	3569556	BH01

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 64	q 16	q 4	Sec	Twn	Rng	X	Y	Distance
C 04551	CUB	MON	0	WSP USA	LE	C 04551 POD1	NA				4	4	3	31	23S	33E	630671	3569556	348
C 03565	CUB	EXP	0	INTERCONTINENTAL POTASH CORP	LE	C 03565 POD7					2	2	06	24S	33E		631361	3569250	426

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 631015 **Northing (Y):** 3569499.3 **Radius:** 1000

Sorted by: Distance

Mis Amigos POD Location

11/7/2023, 11:42:06 AM

Override 1

GIS WATERS PODs

Pending

Plugged

OSE District Boundary

Water Right Regulations

Closure Area

New Mexico State Trust Lands

Both Estates

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

OSE DIT AUG 17 2021 PM3:03

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4551

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	18.36	N
	LONGITUDE	103	36	46.04	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE SW Sec. 31T23S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/20/2021	07/20/2021	temporary well material	108	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	108	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4551	POD NO. 1	TRN NO. 699428	
LOCATION 23S.33E.31.443		WELL TAG ID NO.	PAGE 1 OF 2

OSE DIT AUG 17 2021 PM3:09

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	15	15	Sand,fine grain, poorly graded, moist, Reddish Brown	Y ✓ N	
15	40	25	Caliche, poorly consolidated, Tan-Off White	Y ✓ N	
40	45	5	Sand,medium-fine grain, poorly graded, trace caliche, Light Brown	Y ✓ N	
45	50	5	Clayey Sand, fine- medium grain , poorly graded, cohesive, Reddish Brown	Y ✓ N	
50	55	5	Sandy Clay, fine- medium grain , poorly graded, cohesive, Reddish Brown	Y ✓ N	
55	70	15	Claystone, poorly cemented, cohesive,Reddish brown,	Y ✓ N	
70	75	5	Clayey Sand, medium grain , poorly graded, cohesive, Light Brown	Y ✓ N	
75	80	5	Silty Sand, fine- very finegrain , poorly graded, cohesive, Light Brown	Y ✓ N	
80	85	5	Clayey Sand, fine- medium grain , poorly graded, cohesive, Light Brown	Y ✓ N	
85	100	15	Sandy Clay, poorly graded, cohesive, Reddish Brown	Y ✓ N	
100	105	5	Clay, low plasticity, cohesive, Brown-Blueish Gray, Dry	Y ✓ N	
105	108	3	Claystone, poorly cemented, cohesive,Reddish brown,dry	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 08/13/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4551	POD NO. 1	TRN NO. 699428	
LOCATION 23S-33E-31 443		WELL TAG ID NO.	PAGE 2 OF 2

U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Nearest Watercourse 1.72

September 20, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Nearest Water Body 0.27

September 20, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
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- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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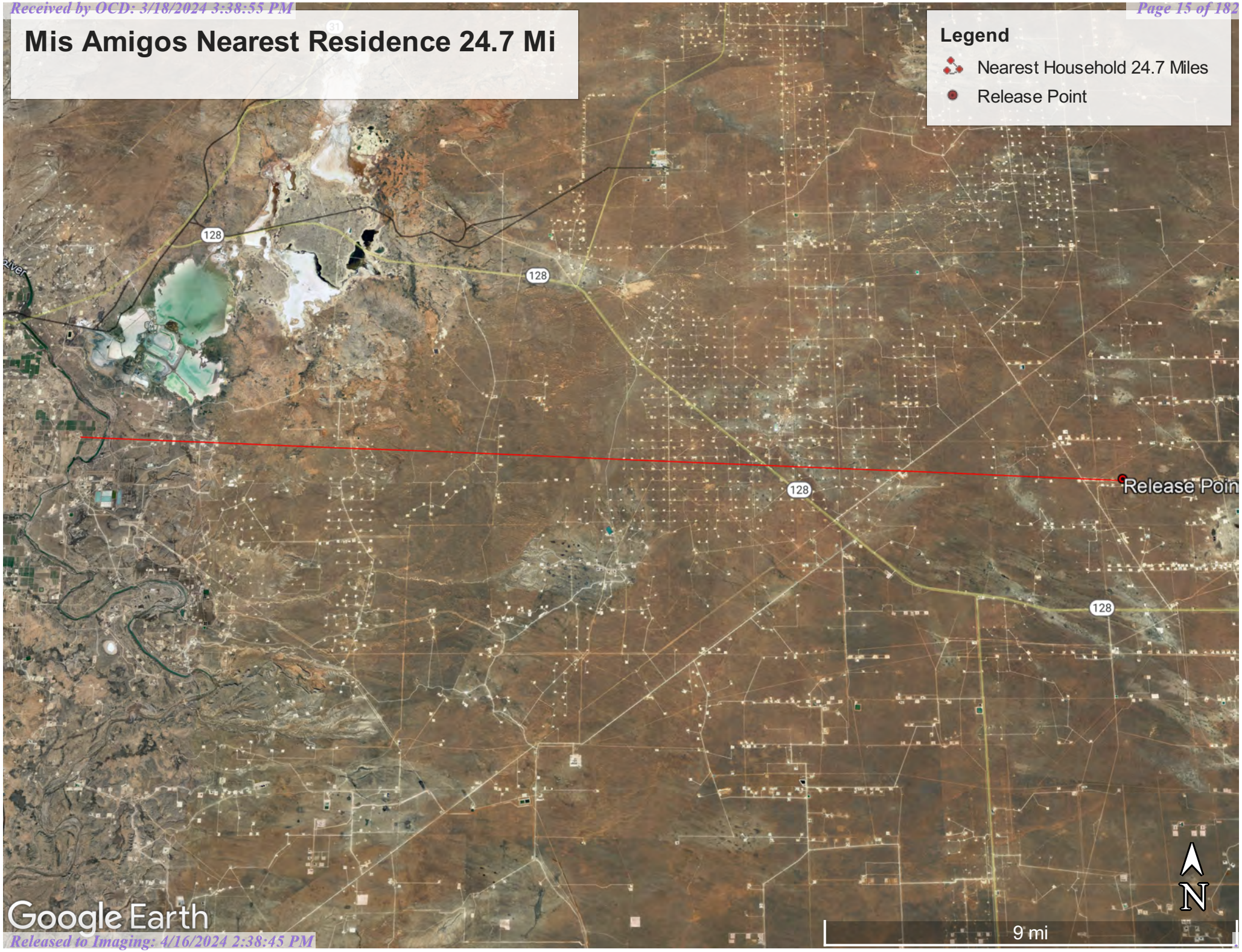
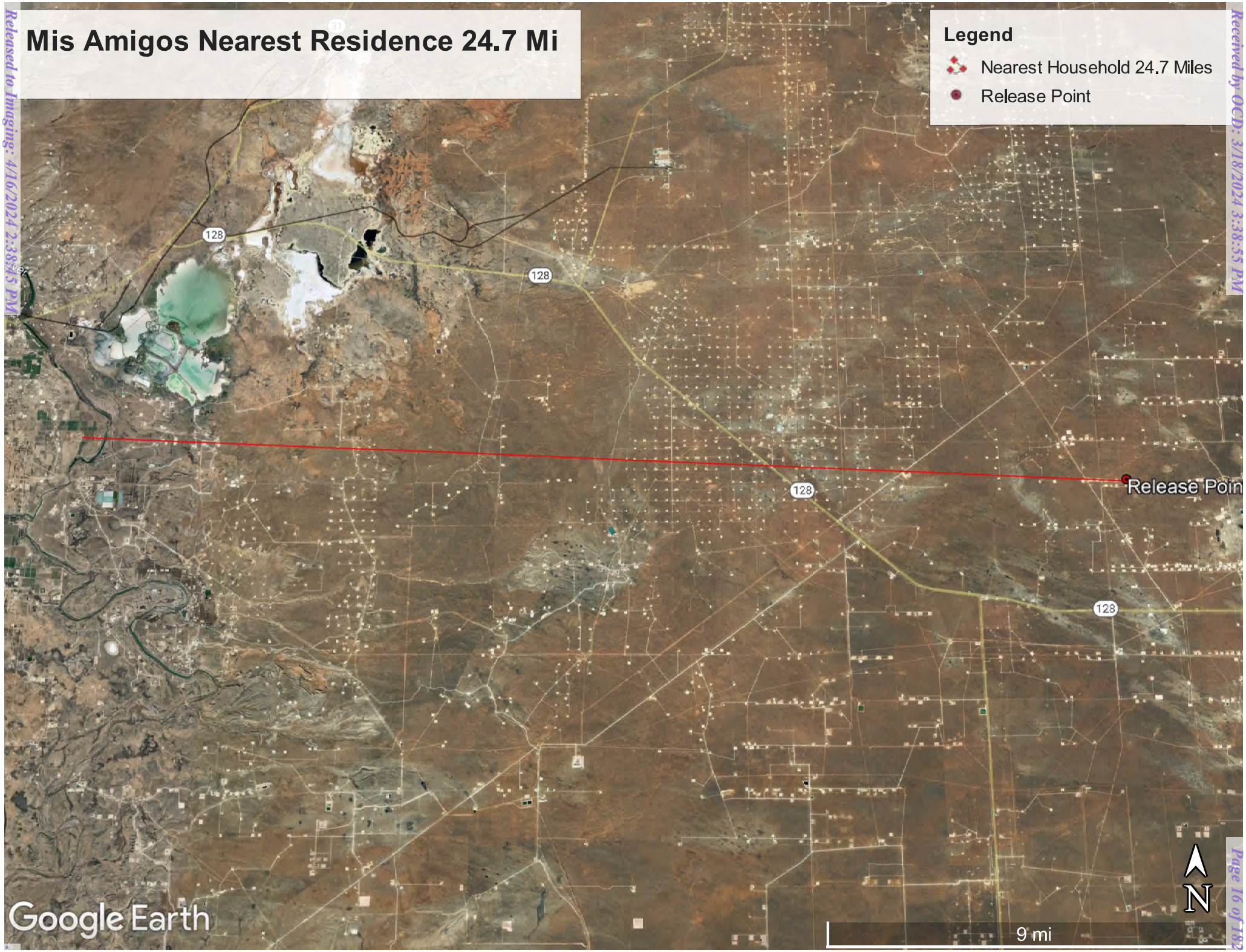
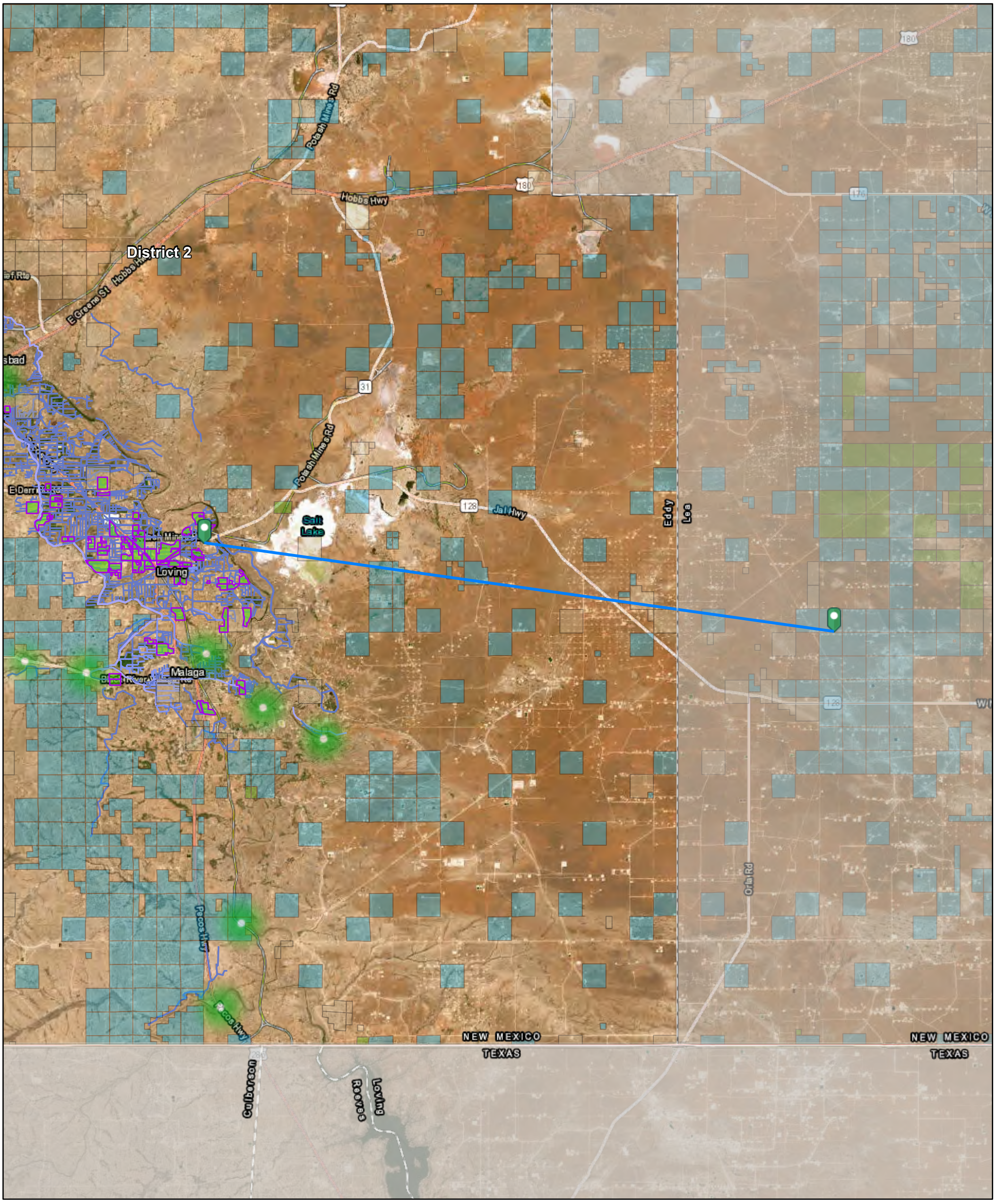
Mis Amigos Nearest Residence 24.7 Mi



Mis Amigos Nearest Residence 24.7 Mi



Mis Amigos Closest Domestic Well



12/12/2023, 11:14:45 AM

Live Stream Gauges v1

Override 1

OSE District Boundary

Water Right Regulations

Negative Easement Area

Closure Area

New Mexico State Trust Lands

Subsurface Estate

Surface Estate

Both Estates

Conveyances

Canal

Ditch

Lateral

1:288,895

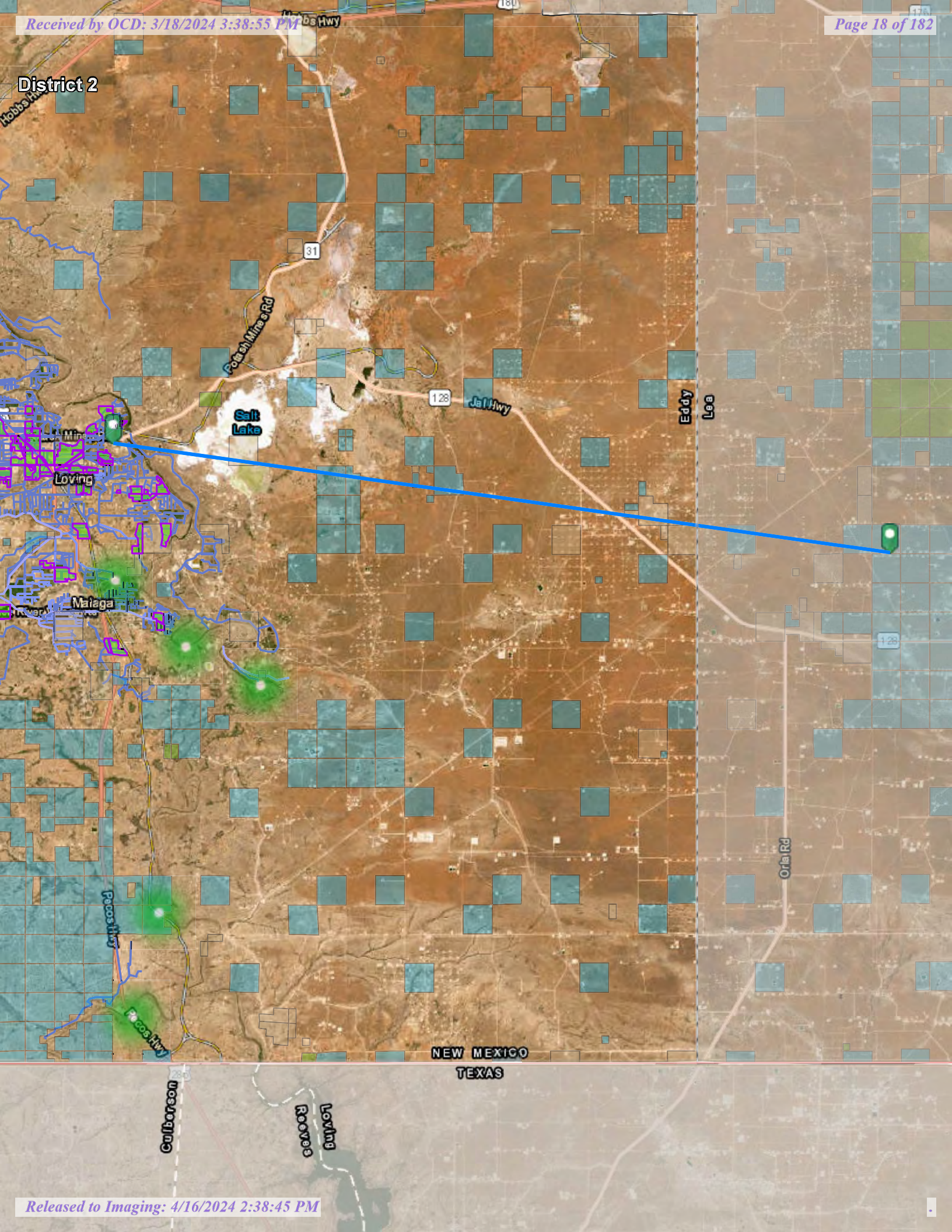
0 2.75 5.5 11 mi

0 4.5 9 18 km

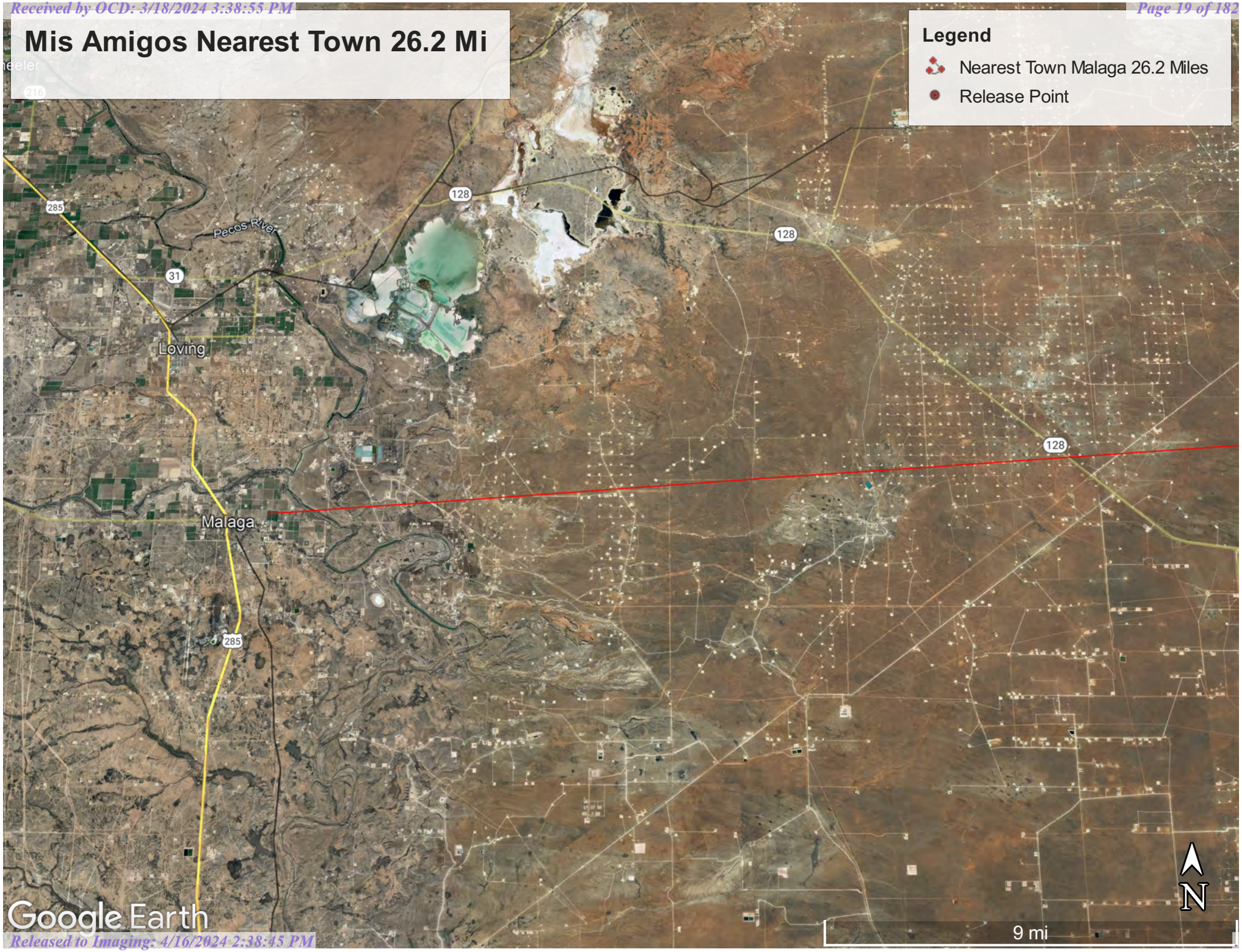
Esri, HERE, Garmin, Esri, HERE, Earthstar Geographics

Online web user

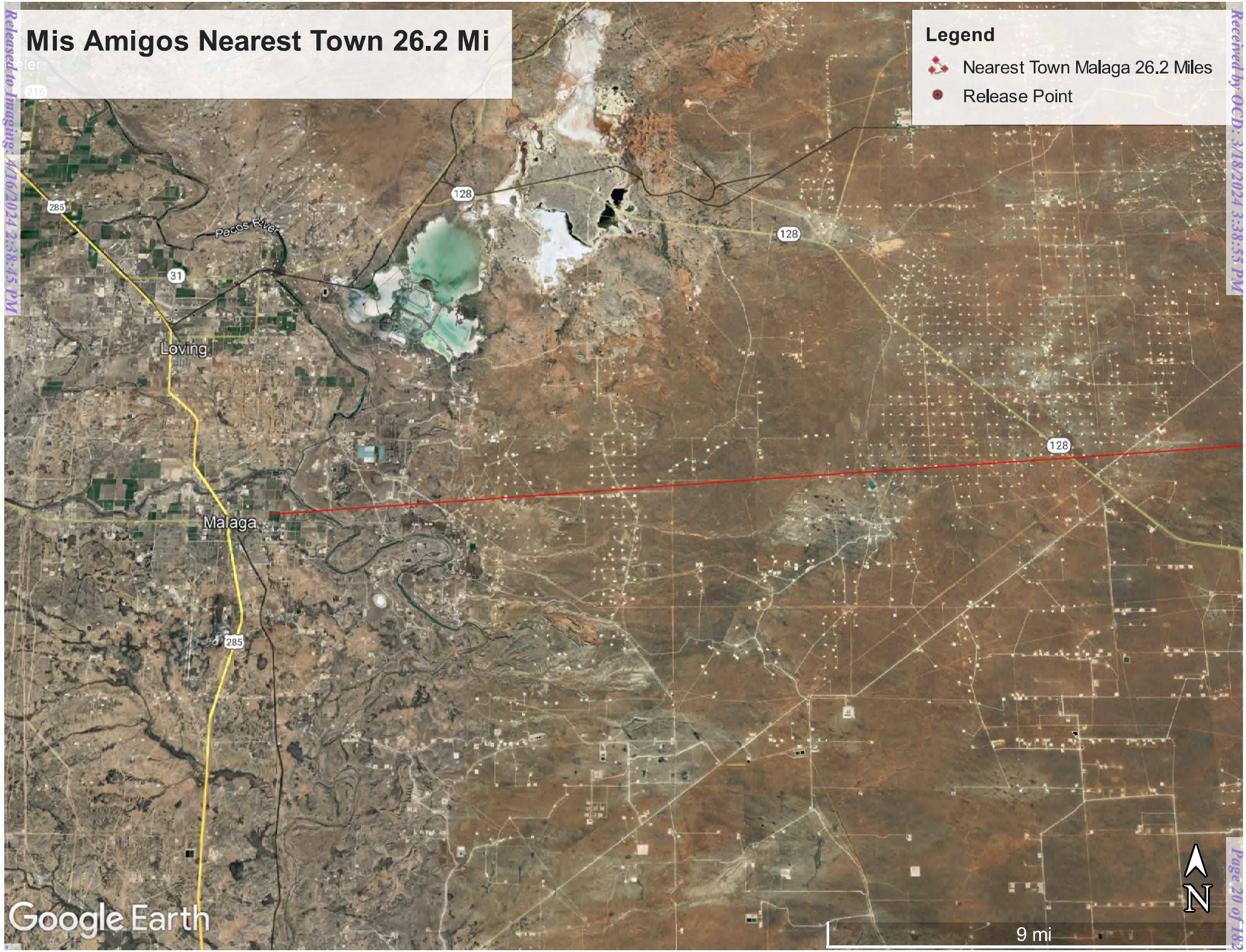
This is an unofficial map from the OSE's online application.


District 2
Hobbs Hwy
180
31
Potash Mines Rd
128
Jal Hwy
Salt Lake
Loving
Eddy
Lea
Malaga
Pecos Hwy
Orla Rd
NEW MEXICO
TEXAS
Culberson
Reeves
Loving

Mis Amigos Nearest Town 26.2 Mi



Mis Amigos Nearest Town 26.2 Mi



U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Wetland 2.27 Mi

September 20, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
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- Lake
- Other
- Riverine

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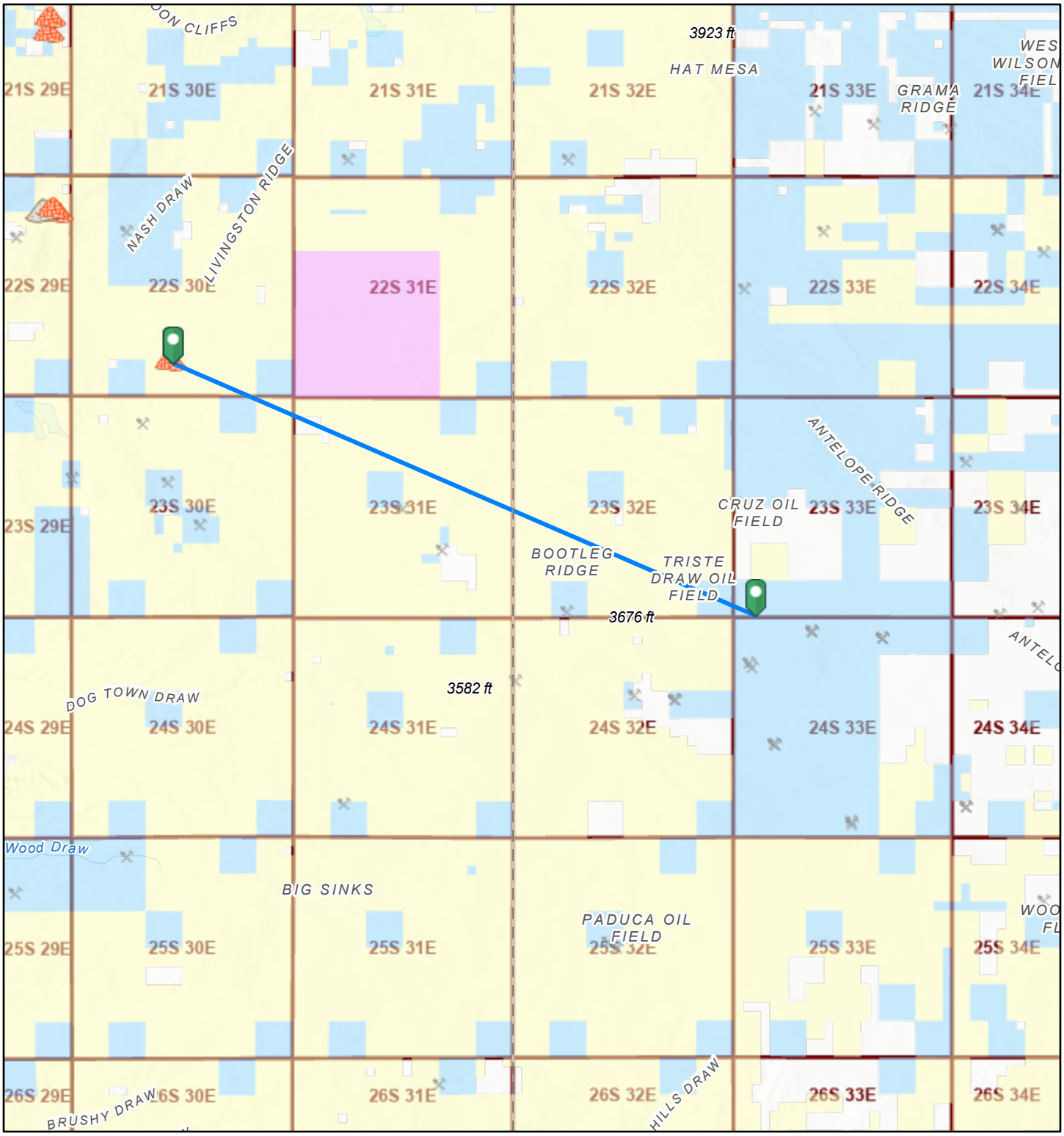
Mis Amigos/Subsurface Mine 17.4 Miles



12/12/2023, 7:56:54 AM

1:288,895

0 2 4 8 mi

0 3.25 6.5 13 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash
- Salt

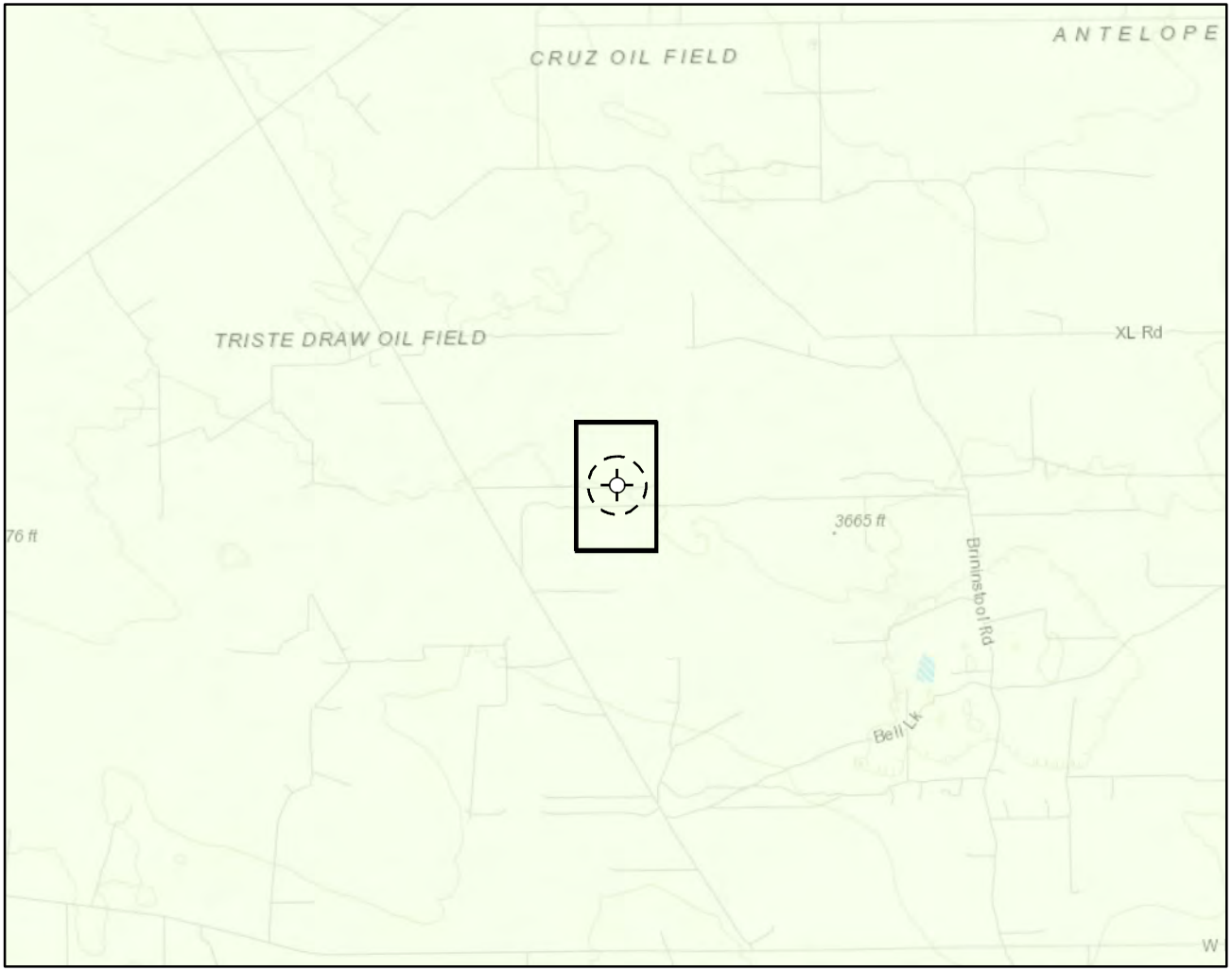
Land Ownership

- BLM
- DOE
- P
- S
- PLSS Townships

U.S. BLM, Esri, NASA, NGA, USGS, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, BLM

EMNRD MMD GIS Coordinator

New Mexico Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)



Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Buffer Location (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft

VERTEX

Map Center:
Lat/Long: 32.254544, -103.609145

NAD 1983 UTM Zone 13N
Date: Sep 27/23

N

Karst Potential Map
Mis Amigos CTB

FIGURE:
X

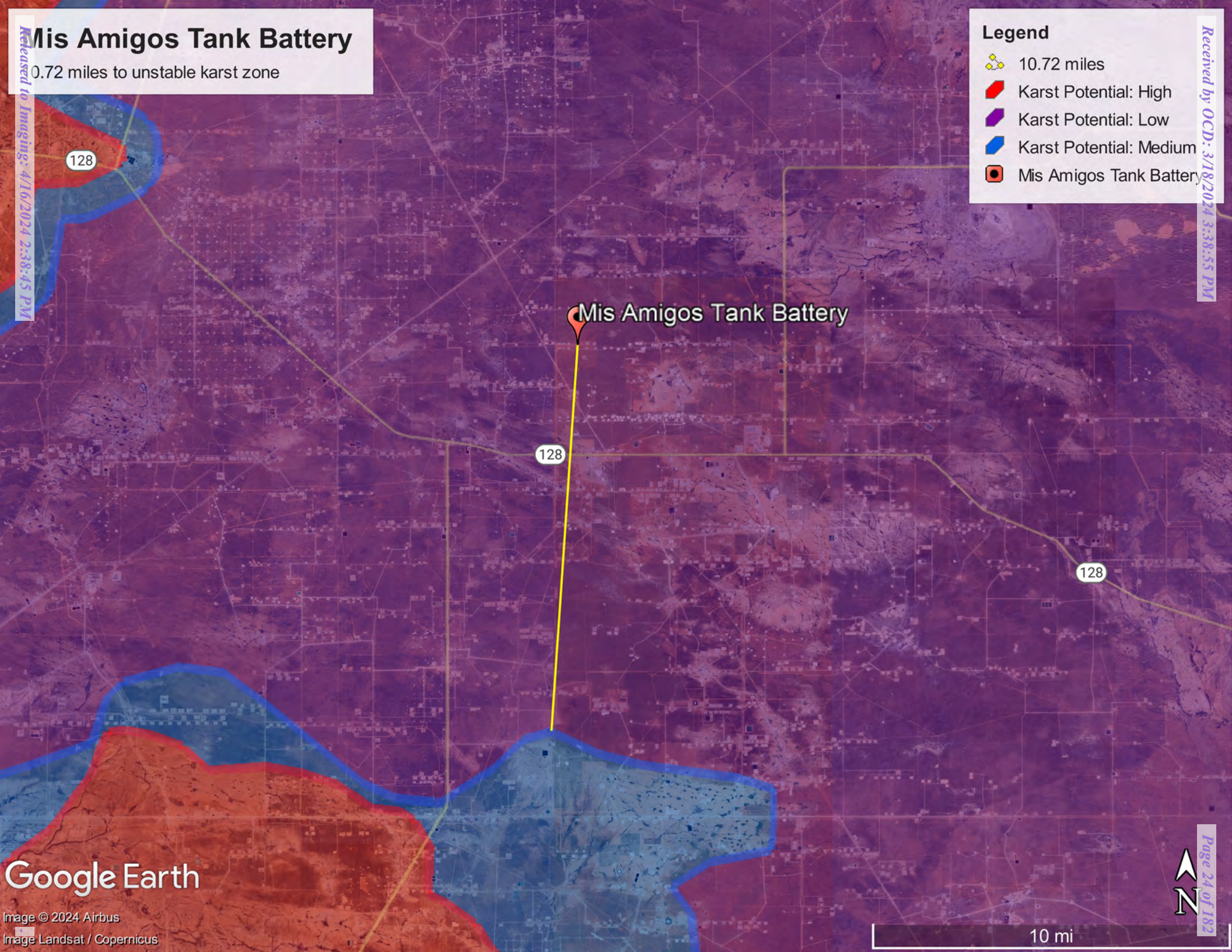
XTO ENERGY

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, Esri 2022; Overview Map: Esri World Topographic. Karst potential data sourced from Roswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\XTO Energy\23E-05219\Karst Potential Schematic (23E-05219)ID17037.mxd


Mis Amigos Tank Battery
0.72 miles to unstable karst zone
Released to Imaging: 4/16/2024 2:38:45 PM
Received by OCD: 3/18/2024 3:38:55 PM
Legend
10.72 miles
Karst Potential: High
Karst Potential: Low
Karst Potential: Medium
Mis Amigos Tank Battery
Mis Amigos Tank Battery
128
128
128
Google Earth
Image © 2024 Airbus
Image Landsat / Copernicus
N
10 mi
Page 24 of 182

National Flood Hazard Layer FIRMette

FEMA

103°36'52"W 32°15'32"N

103°36'14"W 32°15'1"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/20/2023 at 12:49 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

United States Department of Agriculture

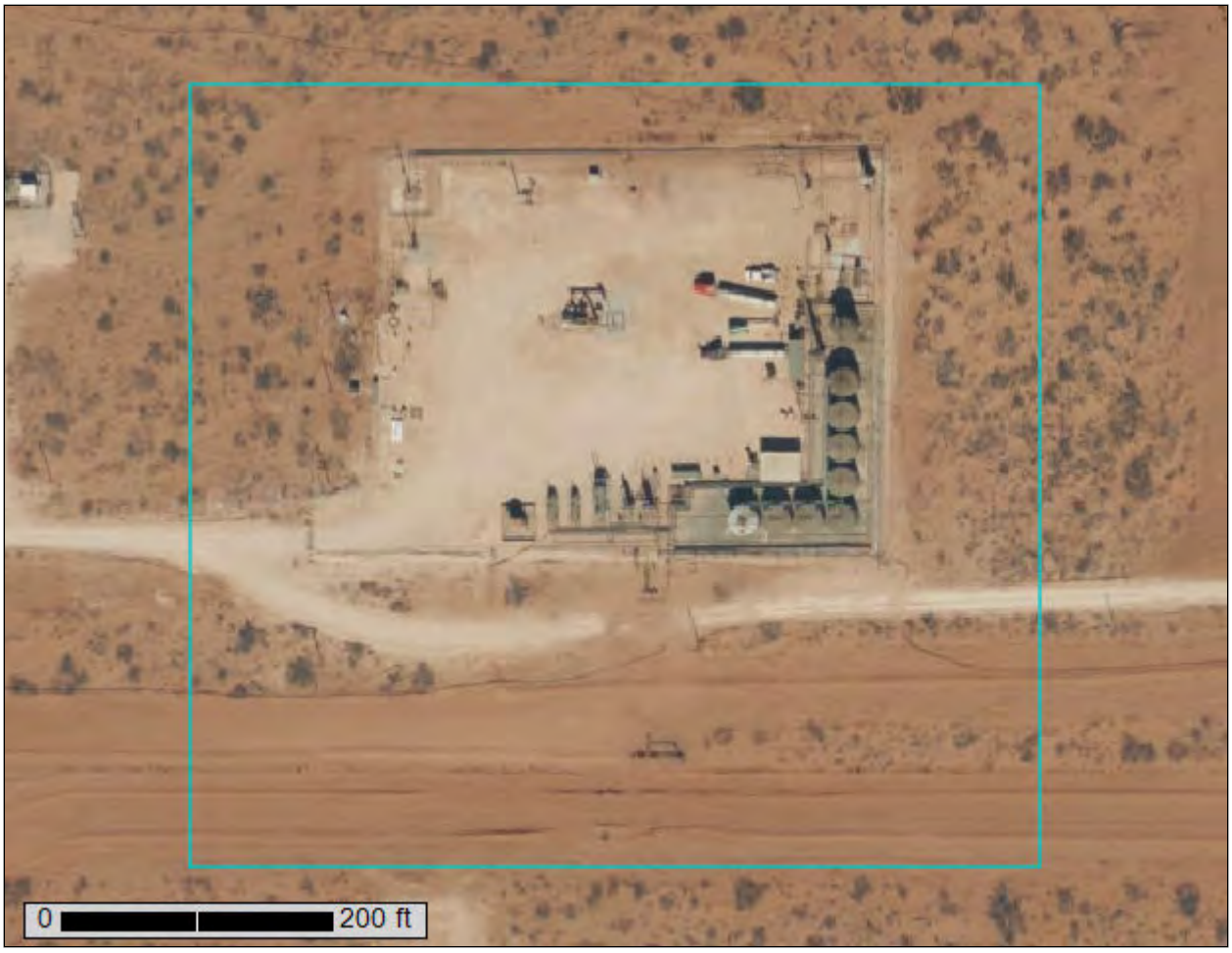
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico

Mis Amigos CTB Soil Map



September 20, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

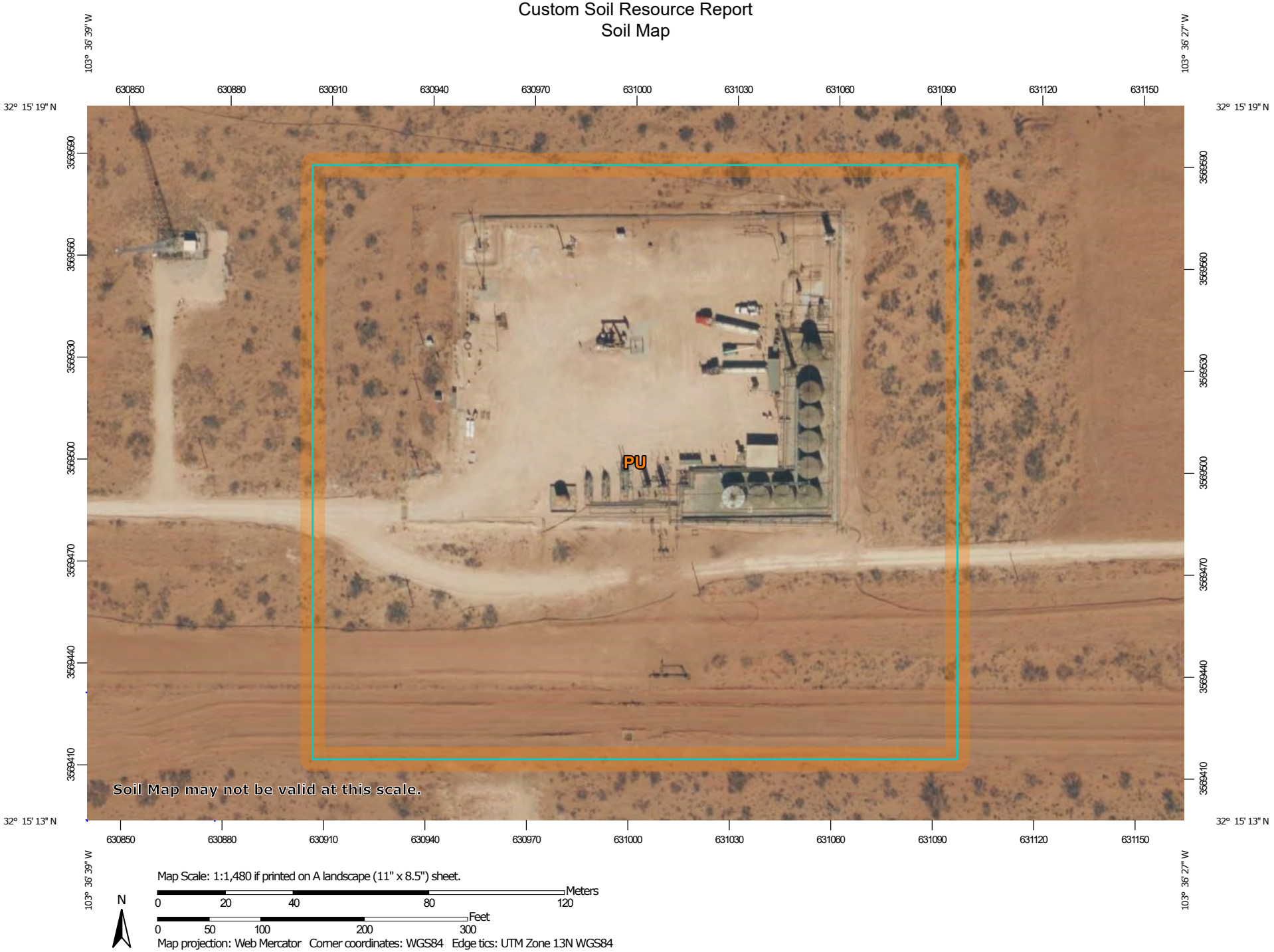
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and Maljamar fine sands	8.3	100.0%
Totals for Area of Interest		**8.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent
Maljamar and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

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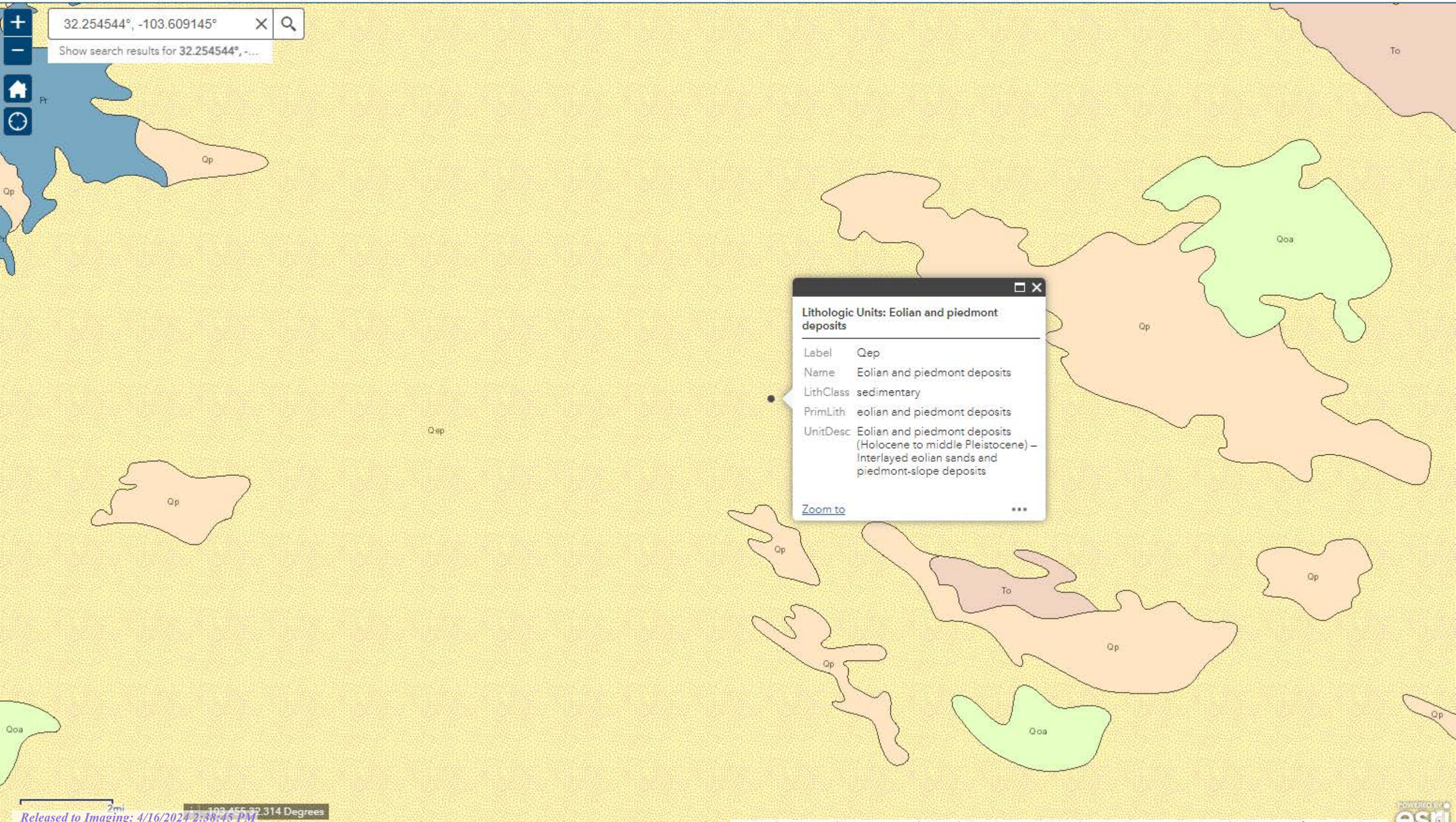
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Pr
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Lithologic Units: Eolian and piedmont deposits
Label Qep
Name Eolian and piedmont deposits
LithClass sedimentary
PrimLith eolian and piedmont deposits
UnitDesc Eolian and piedmont deposits (Holocene to middle Pleistocene) – Interlayed eolian sands and piedmont-slope deposits
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Qep
Qp
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USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information Sy...
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ATTACHMENT 3

Client Name: XTO
Site Name: Mis Amigos Tank Battey
NMOCD Tracking #: nAPP2335431615
Project #: 23E-05219
Lab Reports: 890-61176-1, 890-6178-1, 890-6296-1

Table 2. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH24-01	0	February 12, 2024	-	68	160	ND	ND	ND	ND	ND	ND	ND	100
	2	February 12, 2024	-	0	88	ND	ND	ND	ND	ND	ND	ND	61.2
	4	February 12, 2024	-	0	85	ND	ND	ND	ND	ND	ND	ND	ND
BH24-02	0	February 12, 2024	-	14	355	ND	ND	ND	ND	ND	ND	ND	157
	2	February 12, 2024	-	2	223	ND	ND	ND	ND	ND	ND	ND	76
	4	February 12, 2024	-	0	50	ND	ND	ND	ND	ND	ND	ND	235
BH24-03	0	February 12, 2024	-	22	525	ND	ND	ND	ND	ND	ND	ND	107
	2	February 12, 2024	-	17	204	ND	ND	ND	ND	ND	ND	ND	91
	4	February 12, 2024	-	2	75	ND	ND	ND	ND	ND	ND	ND	110
BH24-04	0	February 12, 2024	-	2	60	ND	ND	ND	ND	ND	ND	ND	71.2
	2	February 12, 2024	-	0	55	ND	ND	ND	ND	ND	ND	ND	80.7
	4	February 12, 2024	-	0	50	ND	ND	ND	ND	ND	ND	ND	114
BH24-05	0	February 13, 2024	-	72	165	ND	ND	ND	ND	ND	ND	ND	74.3
	2	February 13, 2024	-	2	75	ND	ND	ND	ND	ND	ND	ND	81.4
	4	February 13, 2024	-	0	90	ND	ND	ND	ND	ND	ND	ND	116
BH24-06	0	February 13, 2024	-	32	250	ND	ND	ND	ND	ND	ND	ND	122
	2	February 13, 2024	-	0	120	ND	ND	ND	ND	ND	ND	ND	98
	4	February 13, 2024	-	5	110	ND	ND	ND	ND	ND	ND	ND	99.7
BH24-07	0	February 13, 2024	-	14	275	ND	ND	ND	ND	ND	ND	ND	86
	2	February 13, 2024	-	0	155	ND	ND	ND	ND	ND	ND	ND	74
	4	February 13, 2024	-	0	135	ND	ND	ND	ND	ND	ND	ND	74
BH24-08	0	February 13, 2024	-	44	310	ND	ND	ND	ND	ND	ND	ND	81
	2	February 13, 2024	-	8	170	ND	ND	ND	ND	ND	ND	ND	66
	4	February 13, 2024	-	0	162	ND	ND	ND	ND	ND	ND	ND	71
BH24-09	0	February 27, 2024	-	42	246								
	2	February 27, 2024	-	39	0	ND	ND	ND	ND	ND	ND	ND	113
BH24-10	0	February 27, 2024	-	232	443	-	-	-	-	-	-	-	-
	2	February 27, 2024	-	47	225	-	-	-	-	-	-	-	-
BH24-11	0	February 27, 2024	-	431	1	ND	ND	ND	60.7	ND	60.7	60.7	202
	2	February 27, 2024	-	38	0	ND	ND	ND	ND	ND	ND	ND	78
BH24-12	0	February 27, 2024	-	-	4,529	ND	ND	ND	ND	ND	ND	ND	7030
	2	February 28, 2024	-	-	2,235	-	-	-	-	-	-	-	-
	4	February 28, 2024	-	-	3,260	ND	ND	ND	ND	ND	ND	ND	2860
	6	February 28, 2024	-	-	4,049	-	-	-	-	-	-	-	-
	8	February 28, 2024	-	-	2,462	ND	ND	ND	ND	ND	ND	ND	2620
BH24-13	0	February 28, 2024	-	47	209	ND	ND	ND	ND	ND	ND	ND	80
	2	February 28, 2024	-	34	189	ND	ND	ND	ND	ND	ND	ND	91
BH24-14	0	February 28, 2024	-	49	228	ND	ND	ND	ND	ND	ND	ND	73
	2	February 28, 2024	-	27	241	ND	ND	ND	ND	ND	ND	ND	44
BH24-15	0	February 28, 2024	-	37	7,741	ND	ND	ND	ND	ND	ND	ND	8820
	2	February 28, 2024	-	17	219	ND	ND	ND	ND	ND	ND	ND	81
BH24-16	0	February 28, 2024	-	-	2,791	-	-	-	-	-	-	-	-
	2	February 28, 2024	-	-	383	-	-	-	-	-	-	-	-
BH24-17	0	February 29, 2024	-	47	12,302	ND	ND	ND	ND	ND	ND	ND	12000
	2	February 29, 2024	-	23	284	ND	ND	ND	ND	ND	ND	ND	371
BH24-18	0	February 29, 2024	-	130	287	ND	ND	ND	ND	ND	ND	ND	234
	2	February 29, 2024	-	35	279	ND	ND	ND	ND	ND	ND	ND	358
BH24-19	0	February 29, 2024	-	46	583	ND	ND	ND	ND	ND	ND	ND	380
	2	February 29, 2024	-	34	150	ND	ND	ND	ND	ND	ND	ND	140
BH24-20	0	February 29, 2024	-	208	15,244	ND	ND	ND	ND	ND	ND	ND	14300
	2	February 29, 2024	-	22	334	ND	ND	ND	ND	ND	ND	ND	253

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 2/22/2024 11:59:25 AM

JOB DESCRIPTION

Mis Amigos
23E-05219

JOB NUMBER

890-6176-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

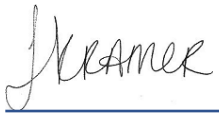
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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2/22/2024 11:59:25 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 890-6176-1
SDG: 23E-05219

Table of Contents

Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Qualifiers

GC VOA

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

GC Semi 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.
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: Vertex
Project: Mis Amigos

Job ID: 890-6176-1

Job ID: 890-6176-1 Eurofins Carlsbad

Job Narrative
890-6176-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/14/2024 8:28 AM. 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 0.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-01 0 (890-6176-1), BH24-01 2 (890-6176-2), BH24-01 4 (890-6176-3), BH24-02 0 (890-6176-4), BH24-02 2 (890-6176-5), BH24-02 4 (890-6176-6), BH24-03 0 (890-6176-7), BH24-03 2 (890-6176-8), BH24-03 4 (890-6176-9), BH24-04 0 (890-6176-10), BH24-04 2 (890-6176-11) and BH24-04 4 (890-6176-12).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73799 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-73799/2).

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: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73300 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-01 4 (890-6176-3), BH24-03 0 (890-6176-7), BH24-03 2 (890-6176-8), (890-6178-A-1-G MS) and (890-6178-A-1-H 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 880-73300 and analytical batch 880-73423 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 0

Date Collected: 02/12/24 09:40
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 19:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/21/24 19:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/21/24 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:05*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 19:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/20/24 02:38	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:26	02/20/24 02:38	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:26	02/20/24 02:38	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:26	02/20/24 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/15/24 17:26*	*02/20/24 02:38*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/15/24 17:26*	*02/20/24 02:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		5.02		mg/Kg			02/17/24 02:06	1

Client Sample ID: BH24-01 2

Date Collected: 02/12/24 09:50
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 19:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:33	02/21/24 19:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:33	02/21/24 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:26*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:26*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 2

Date Collected: 02/12/24 09:50
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/21/24 19:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/20/24 03:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:00	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:00	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:26*	*02/20/24 03:00*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:26*	*02/20/24 03:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.2**		4.99		mg/Kg			02/17/24 02:10	1

Client Sample ID: BH24-01 4

Date Collected: 02/12/24 10:00
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 19:47	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:33	02/21/24 19:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:33	02/21/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:47*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/15/24 15:33*	*02/21/24 19:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/21/24 19:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/20/24 03:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:22	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:22	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 4

Date Collected: 02/12/24 10:00
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-3

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/20/24 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 03:22*	*1*
o-Terphenyl	*60*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 03:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.4**		5.00		mg/Kg			02/17/24 02:15	1

Client Sample ID: BH24-02 0

Date Collected: 02/12/24 10:10
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/21/24 20:07	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/21/24 20:07	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/21/24 20:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:33	02/21/24 20:07	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/21/24 20:07	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:33	02/21/24 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:07*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/21/24 20:07	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/20/24 03:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 03:45	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 03:45	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*02/15/24 17:26*	*02/20/24 03:45*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/15/24 17:26*	*02/20/24 03:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**157**		4.98		mg/Kg			02/17/24 02:29	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 2

Date Collected: 02/12/24 10:20
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-5
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 20:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/21/24 20:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/21/24 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:28*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/21/24 20:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/20/24 04:07	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 04:07	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 04:07	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/15/24 17:26*	*02/20/24 04:07*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:26*	*02/20/24 04:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75.9**		5.03		mg/Kg			02/17/24 02:33	1

Client Sample ID: BH24-02 4

Date Collected: 02/12/24 10:30
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-6
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 20:49	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/15/24 15:33	02/21/24 20:49	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/15/24 15:33	02/21/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:49*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/21/24 20:49*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 4

Lab Sample ID: 890-6176-6
Matrix: Solid
Date Collected: 02/12/24 10:30
Date Received: 02/14/24 08:28

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/21/24 20:49	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/20/24 04:29	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/20/24 04:29	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/20/24 04:29	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/20/24 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/15/24 17:26*	*02/20/24 04:29*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/15/24 17:26*	*02/20/24 04:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**235**		5.05		mg/Kg			02/17/24 02:38	1

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7
Matrix: Solid
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 21:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 21:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 21:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/15/24 15:33	02/21/24 21:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 21:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/15/24 15:33	02/21/24 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:10*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/21/24 21:10	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/20/24 04:51	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 04:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 04:51	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7
Matrix: Solid
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:26*	*02/20/24 04:51*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 04:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		5.02		mg/Kg			02/17/24 02:43	1

Client Sample ID: BH24-03 2

Lab Sample ID: 890-6176-8
Matrix: Solid
Date Collected: 02/12/24 10:50
Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 21:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/21/24 21:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/21/24 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:31*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 21:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/20/24 05:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/20/24 05:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/20/24 05:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/20/24 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:26*	*02/20/24 05:14*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 05:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.8**		4.97		mg/Kg			02/17/24 02:47	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 4

Lab Sample ID: 890-6176-9
Matrix: Solid
Date Collected: 02/12/24 11:00
Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 21:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:33	02/21/24 21:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:33	02/21/24 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:52*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 15:33*	*02/21/24 21:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/21/24 21:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/18/24 17:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:22	02/18/24 17:20	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:22	02/18/24 17:20	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:22	02/18/24 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*02/15/24 17:22*	*02/18/24 17:20*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/15/24 17:22*	*02/18/24 17:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		4.99		mg/Kg			02/17/24 02:52	1

Client Sample ID: BH24-04 0

Lab Sample ID: 890-6176-10
Matrix: Solid
Date Collected: 02/12/24 11:10
Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 22:13	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/21/24 22:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/21/24 22:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 15:33*	*02/21/24 22:13*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:33*	*02/21/24 22:13*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 0

Date Collected: 02/12/24 11:10
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-10
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/21/24 22:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/18/24 17:43	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:23	02/18/24 17:43	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:23	02/18/24 17:43	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:23	02/18/24 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/15/24 17:23*	*02/18/24 17:43*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/15/24 17:23*	*02/18/24 17:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**71.2**		4.96		mg/Kg			02/17/24 03:06	1

Client Sample ID: BH24-04 2

Date Collected: 02/12/24 11:20
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-11
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 23:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/15/24 15:33	02/21/24 23:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/15/24 15:33	02/21/24 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*02/15/24 15:33*	*02/21/24 23:40*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/15/24 15:33*	*02/21/24 23:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/21/24 23:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/18/24 18:06	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:23	02/18/24 18:06	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:23	02/18/24 18:06	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 2

Lab Sample ID: 890-6176-11
Matrix: Solid
Date Collected: 02/12/24 11:20
Date Received: 02/14/24 08:28

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:23	02/18/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*02/15/24 17:23*	*02/18/24 18:06*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/15/24 17:23*	*02/18/24 18:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.7**		4.95		mg/Kg			02/17/24 03:11	1

Client Sample ID: BH24-04 4

Lab Sample ID: 890-6176-12
Matrix: Solid
Date Collected: 02/12/24 11:30
Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/22/24 00:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/22/24 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:00*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 00:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/18/24 18:29	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:23	02/18/24 18:29	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:23	02/18/24 18:29	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:23	02/18/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/15/24 17:23*	*02/18/24 18:29*	*1*
o-Terphenyl	*78*		*70 - 130*	*02/15/24 17:23*	*02/18/24 18:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**114**		4.95		mg/Kg			02/17/24 03:24	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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)
890-6176-1	BH24-01 0	91	107
890-6176-1 MS	BH24-01 0	104	106
890-6176-1 MSD	BH24-01 0	97	106
890-6176-2	BH24-01 2	85	107
890-6176-3	BH24-01 4	95	109
890-6176-4	BH24-02 0	90	104
890-6176-5	BH24-02 2	97	106
890-6176-6	BH24-02 4	98	106
890-6176-7	BH24-03 0	103	106
890-6176-8	BH24-03 2	95	104
890-6176-9	BH24-03 4	94	104
890-6176-10	BH24-04 0	104	107
890-6176-11	BH24-04 2	88	101
890-6176-12	BH24-04 4	102	110
LCS 880-73284/1-A	Lab Control Sample	96	108
LCSD 880-73284/2-A	Lab Control Sample Dup	93	104
MB 880-73284/5-A	Method Blank	74	101

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)
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
890-6176-1	BH24-01 0	81	85
890-6176-2	BH24-01 2	72	71
890-6176-3	BH24-01 4	65 S1-	60 S1-
890-6176-4	BH24-02 0	71	75
890-6176-5	BH24-02 2	74	70
890-6176-6	BH24-02 4	78	80
890-6176-7	BH24-03 0	70	67 S1-
890-6176-8	BH24-03 2	70	67 S1-
890-6176-9	BH24-03 4	115	94
890-6176-10	BH24-04 0	101	80
890-6176-11	BH24-04 2	106	87
890-6176-12	BH24-04 4	98	78
890-6178-A-1-G MS	Matrix Spike	73	68 S1-
890-6178-A-1-H MSD	Matrix Spike Duplicate	68 S1-	64 S1-
LCS 880-73298/2-A	Lab Control Sample	94	97
LCS 880-73300/2-A	Lab Control Sample	88	89
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
LCSD 880-73300/3-A	Lab Control Sample Dup	90	93
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+
MB 880-73300/1-A	Method Blank	136 S1+	151 S1+

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73284/5-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73284

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*

Lab Sample ID: LCS 880-73284/1-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1305		mg/Kg		130	70 - 130		
Toluene			0.100	0.1001		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09525		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1853		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09366		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-73284/2-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1169		mg/Kg		117	70 - 130	11	35
Toluene			0.100	0.09440		mg/Kg		94	70 - 130	6	35
Ethylbenzene			0.100	0.09104		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1784		mg/Kg		89	70 - 130	4	35
o-Xylene			0.100	0.08973		mg/Kg		90	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-6176-1 MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.1146		mg/Kg		114	70 - 130		
Toluene	<0.00199	U	0.100	0.08578		mg/Kg		86	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Lab Sample ID: 890-6176-1 MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1602		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.100	0.08577		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-6176-1 MSD
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1111		mg/Kg		110	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.08237		mg/Kg		82	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.07895		mg/Kg		78	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1528		mg/Kg		76	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.08147		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-73298/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73298

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*
o-Terphenyl	*179*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	842.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)			1000	870.2		mg/Kg		87	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	828.5		mg/Kg		83	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

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	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-73300/1-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73300

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*02/15/24 17:26*	*02/19/24 19:53*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*02/15/24 17:26*	*02/19/24 19:53*	*1*

Lab Sample ID: LCS 880-73300/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73300

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	955.9		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	851.6		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: LCSD 880-73300/3-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73300

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.7		mg/Kg		93	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	858.8		mg/Kg		86	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: 890-6178-A-1-G MS
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73300

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1024		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	630.8	F1	mg/Kg		60	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Lab Sample ID: 890-6178-A-1-G MS
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73300

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 890-6178-A-1-H MSD
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73300

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	<49.6	U	1000	1045		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	602.8	F1	mg/Kg		57	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73212/1-A
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/17/24 01:33	1

Lab Sample ID: LCS 880-73212/2-A
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.8		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-73212/3-A
Matrix: Solid
Analysis Batch: 73435

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	241.4		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6176-9 MS
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: BH24-03 4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	110		250	342.1		mg/Kg		93	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-6176-9 MSD
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: BH24-03 4
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		250	344.3		mg/Kg		94	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC VOA

Prep Batch: 73284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	5035	
890-6176-2	BH24-01 2	Total/NA	Solid	5035	
890-6176-3	BH24-01 4	Total/NA	Solid	5035	
890-6176-4	BH24-02 0	Total/NA	Solid	5035	
890-6176-5	BH24-02 2	Total/NA	Solid	5035	
890-6176-6	BH24-02 4	Total/NA	Solid	5035	
890-6176-7	BH24-03 0	Total/NA	Solid	5035	
890-6176-8	BH24-03 2	Total/NA	Solid	5035	
890-6176-9	BH24-03 4	Total/NA	Solid	5035	
890-6176-10	BH24-04 0	Total/NA	Solid	5035	
890-6176-11	BH24-04 2	Total/NA	Solid	5035	
890-6176-12	BH24-04 4	Total/NA	Solid	5035	
MB 880-73284/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6176-1 MS	BH24-01 0	Total/NA	Solid	5035	
890-6176-1 MSD	BH24-01 0	Total/NA	Solid	5035	

Analysis Batch: 73799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8021B	73284
890-6176-2	BH24-01 2	Total/NA	Solid	8021B	73284
890-6176-3	BH24-01 4	Total/NA	Solid	8021B	73284
890-6176-4	BH24-02 0	Total/NA	Solid	8021B	73284
890-6176-5	BH24-02 2	Total/NA	Solid	8021B	73284
890-6176-6	BH24-02 4	Total/NA	Solid	8021B	73284
890-6176-7	BH24-03 0	Total/NA	Solid	8021B	73284
890-6176-8	BH24-03 2	Total/NA	Solid	8021B	73284
890-6176-9	BH24-03 4	Total/NA	Solid	8021B	73284
890-6176-10	BH24-04 0	Total/NA	Solid	8021B	73284
890-6176-11	BH24-04 2	Total/NA	Solid	8021B	73284
890-6176-12	BH24-04 4	Total/NA	Solid	8021B	73284
MB 880-73284/5-A	Method Blank	Total/NA	Solid	8021B	73284
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	8021B	73284
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73284
890-6176-1 MS	BH24-01 0	Total/NA	Solid	8021B	73284
890-6176-1 MSD	BH24-01 0	Total/NA	Solid	8021B	73284

Analysis Batch: 73844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	Total BTEX	
890-6176-2	BH24-01 2	Total/NA	Solid	Total BTEX	
890-6176-3	BH24-01 4	Total/NA	Solid	Total BTEX	
890-6176-4	BH24-02 0	Total/NA	Solid	Total BTEX	
890-6176-5	BH24-02 2	Total/NA	Solid	Total BTEX	
890-6176-6	BH24-02 4	Total/NA	Solid	Total BTEX	
890-6176-7	BH24-03 0	Total/NA	Solid	Total BTEX	
890-6176-8	BH24-03 2	Total/NA	Solid	Total BTEX	
890-6176-9	BH24-03 4	Total/NA	Solid	Total BTEX	
890-6176-10	BH24-04 0	Total/NA	Solid	Total BTEX	
890-6176-11	BH24-04 2	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC VOA (Continued)

Analysis Batch: 73844 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-12	BH24-04 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-9	BH24-03 4	Total/NA	Solid	8015NM Prep	
890-6176-10	BH24-04 0	Total/NA	Solid	8015NM Prep	
890-6176-11	BH24-04 2	Total/NA	Solid	8015NM Prep	
890-6176-12	BH24-04 4	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 73300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015NM Prep	
890-6176-2	BH24-01 2	Total/NA	Solid	8015NM Prep	
890-6176-3	BH24-01 4	Total/NA	Solid	8015NM Prep	
890-6176-4	BH24-02 0	Total/NA	Solid	8015NM Prep	
890-6176-5	BH24-02 2	Total/NA	Solid	8015NM Prep	
890-6176-6	BH24-02 4	Total/NA	Solid	8015NM Prep	
890-6176-7	BH24-03 0	Total/NA	Solid	8015NM Prep	
890-6176-8	BH24-03 2	Total/NA	Solid	8015NM Prep	
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6178-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6178-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-9	BH24-03 4	Total/NA	Solid	8015B NM	73298
890-6176-10	BH24-04 0	Total/NA	Solid	8015B NM	73298
890-6176-11	BH24-04 2	Total/NA	Solid	8015B NM	73298
890-6176-12	BH24-04 4	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015B NM	73300
890-6176-2	BH24-01 2	Total/NA	Solid	8015B NM	73300
890-6176-3	BH24-01 4	Total/NA	Solid	8015B NM	73300
890-6176-4	BH24-02 0	Total/NA	Solid	8015B NM	73300
890-6176-5	BH24-02 2	Total/NA	Solid	8015B NM	73300

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 73423 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-6	BH24-02 4	Total/NA	Solid	8015B NM	73300
890-6176-7	BH24-03 0	Total/NA	Solid	8015B NM	73300
890-6176-8	BH24-03 2	Total/NA	Solid	8015B NM	73300
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015B NM	73300
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73300
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73300
890-6178-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	73300
890-6178-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73300

Analysis Batch: 73540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015 NM	
890-6176-2	BH24-01 2	Total/NA	Solid	8015 NM	
890-6176-3	BH24-01 4	Total/NA	Solid	8015 NM	
890-6176-4	BH24-02 0	Total/NA	Solid	8015 NM	
890-6176-5	BH24-02 2	Total/NA	Solid	8015 NM	
890-6176-6	BH24-02 4	Total/NA	Solid	8015 NM	
890-6176-7	BH24-03 0	Total/NA	Solid	8015 NM	
890-6176-8	BH24-03 2	Total/NA	Solid	8015 NM	
890-6176-9	BH24-03 4	Total/NA	Solid	8015 NM	
890-6176-10	BH24-04 0	Total/NA	Solid	8015 NM	
890-6176-11	BH24-04 2	Total/NA	Solid	8015 NM	
890-6176-12	BH24-04 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Soluble	Solid	DI Leach	
890-6176-2	BH24-01 2	Soluble	Solid	DI Leach	
890-6176-3	BH24-01 4	Soluble	Solid	DI Leach	
890-6176-4	BH24-02 0	Soluble	Solid	DI Leach	
890-6176-5	BH24-02 2	Soluble	Solid	DI Leach	
890-6176-6	BH24-02 4	Soluble	Solid	DI Leach	
890-6176-7	BH24-03 0	Soluble	Solid	DI Leach	
890-6176-8	BH24-03 2	Soluble	Solid	DI Leach	
890-6176-9	BH24-03 4	Soluble	Solid	DI Leach	
890-6176-10	BH24-04 0	Soluble	Solid	DI Leach	
890-6176-11	BH24-04 2	Soluble	Solid	DI Leach	
890-6176-12	BH24-04 4	Soluble	Solid	DI Leach	
MB 880-73212/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6176-9 MS	BH24-03 4	Soluble	Solid	DI Leach	
890-6176-9 MSD	BH24-03 4	Soluble	Solid	DI Leach	

Analysis Batch: 73435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Soluble	Solid	300.0	73212
890-6176-2	BH24-01 2	Soluble	Solid	300.0	73212
890-6176-3	BH24-01 4	Soluble	Solid	300.0	73212

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

HPLC/IC (Continued)

Analysis Batch: 73435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-4	BH24-02 0	Soluble	Solid	300.0	73212
890-6176-5	BH24-02 2	Soluble	Solid	300.0	73212
890-6176-6	BH24-02 4	Soluble	Solid	300.0	73212
890-6176-7	BH24-03 0	Soluble	Solid	300.0	73212
890-6176-8	BH24-03 2	Soluble	Solid	300.0	73212
890-6176-9	BH24-03 4	Soluble	Solid	300.0	73212
890-6176-10	BH24-04 0	Soluble	Solid	300.0	73212
890-6176-11	BH24-04 2	Soluble	Solid	300.0	73212
890-6176-12	BH24-04 4	Soluble	Solid	300.0	73212
MB 880-73212/1-A	Method Blank	Soluble	Solid	300.0	73212
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	300.0	73212
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73212
890-6176-9 MS	BH24-03 4	Soluble	Solid	300.0	73212
890-6176-9 MSD	BH24-03 4	Soluble	Solid	300.0	73212

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 0

Lab Sample ID: 890-6176-1
Matrix: Solid
Date Collected: 02/12/24 09:40
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 02:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 02:38	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:06	CH	EET MID

Client Sample ID: BH24-01 2

Lab Sample ID: 890-6176-2
Matrix: Solid
Date Collected: 02/12/24 09:50
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 03:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:00	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:10	CH	EET MID

Client Sample ID: BH24-01 4

Lab Sample ID: 890-6176-3
Matrix: Solid
Date Collected: 02/12/24 10:00
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 03:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:22	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:15	CH	EET MID

Client Sample ID: BH24-02 0

Lab Sample ID: 890-6176-4
Matrix: Solid
Date Collected: 02/12/24 10:10
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:07	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 0

Lab Sample ID: 890-6176-4
Matrix: Solid
Date Collected: 02/12/24 10:10
Date Received: 02/14/24 08:28

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			73540	02/20/24 03:45	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:45	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:29	CH	EET MID

Client Sample ID: BH24-02 2

Lab Sample ID: 890-6176-5
Matrix: Solid
Date Collected: 02/12/24 10:20
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:07	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:07	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:33	CH	EET MID

Client Sample ID: BH24-02 4

Lab Sample ID: 890-6176-6
Matrix: Solid
Date Collected: 02/12/24 10:30
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:29	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:38	CH	EET MID

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7
Matrix: Solid
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:51	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7
Matrix: Solid
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:43	CH	EET MID

Client Sample ID: BH24-03 2

Lab Sample ID: 890-6176-8
Matrix: Solid
Date Collected: 02/12/24 10:50
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 05:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 05:14	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:47	CH	EET MID

Client Sample ID: BH24-03 4

Lab Sample ID: 890-6176-9
Matrix: Solid
Date Collected: 02/12/24 11:00
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:52	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73298	02/15/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 17:20	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:52	CH	EET MID

Client Sample ID: BH24-04 0

Lab Sample ID: 890-6176-10
Matrix: Solid
Date Collected: 02/12/24 11:10
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 22:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 22:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 17:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 17:43	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:06	CH	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 2

Lab Sample ID: 890-6176-11
Matrix: Solid
Date Collected: 02/12/24 11:20
Date Received: 02/14/24 08:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 18:06	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 18:06	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:11	CH	EET MID

Client Sample ID: BH24-04 4

Lab Sample ID: 890-6176-12
Matrix: Solid
Date Collected: 02/12/24 11:30
Date Received: 02/14/24 08:28

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 00:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/22/24 00:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 18:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 18:29	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:24	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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	T104704400-23-26	06-30-24

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: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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:

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

Sample Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6176-1	BH24-01 0	Solid	02/12/24 09:40	02/14/24 08:28
890-6176-2	BH24-01 2	Solid	02/12/24 09:50	02/14/24 08:28
890-6176-3	BH24-01 4	Solid	02/12/24 10:00	02/14/24 08:28
890-6176-4	BH24-02 0	Solid	02/12/24 10:10	02/14/24 08:28
890-6176-5	BH24-02 2	Solid	02/12/24 10:20	02/14/24 08:28
890-6176-6	BH24-02 4	Solid	02/12/24 10:30	02/14/24 08:28
890-6176-7	BH24-03 0	Solid	02/12/24 10:40	02/14/24 08:28
890-6176-8	BH24-03 2	Solid	02/12/24 10:50	02/14/24 08:28
890-6176-9	BH24-03 4	Solid	02/12/24 11:00	02/14/24 08:28
890-6176-10	BH24-04 0	Solid	02/12/24 11:10	02/14/24 08:28
890-6176-11	BH24-04 2	Solid	02/12/24 11:20	02/14/24 08:28
890-6176-12	BH24-04 4	Solid	02/12/24 11:30	02/14/24 08:28

02.12.24

NAPP: 2329851011

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 105562 1001

6176

www.xenco.com Page 1 of 2

Project Manager:	Sally Carttar	Bill to: (if different)	Garrett Green
Company Name:	Vertex / XTO	Company Name:	XTO
Address:		Address:	on file
City, State ZIP:	on file	City, State ZIP:	
Phone:		Email:	

Work Order Comments

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

Project Name:	Mis Amigos	Turn Around	
Project Number:	23E 05249	☑ Routine	☐ Rush
Project Location:	Mis Amigos	Due Date:	
Sampler's Name:	Alexavon Costa	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No		Thermometer ID:	TW-007
Cooler Custody Seals:	Yes No (N/A)		Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)		Temperature Reading:	0.4
Total Containers:			Corrected Temperature:	0.2

ANALYSIS REQUEST — Parameters: BTEX (8021), TPH (8015D), [unclear handwritten entry]

890-6176 Chain of Custody

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX (8021)	[unclear]	TPH (8015D)	Sample Comments
BH24-01	0'	Soil	2.12.23	9:40	0	C		✓	✓	✓	
BH24-01	2'	↓	↓	9:50	2	C		✓	✓	✓	
BH24-01	4'	↓	↓	10:00	4	C		✓	✓	✓	
BH24-02	0'	↓	↓	10:10	0	C		✓	✓	✓	
BH24-02	2'	↓	↓	10:20	2	C		✓	✓	✓	
BH24-02	4'	↓	↓	10:30	4	C		✓	✓	✓	
BH24-03	0'	↓	↓	10:40	0	C		✓	✓	✓	
BH24-03	2'	↓	↓	10:50	2	C		✓	✓	✓	
BH24-03	4'	↓	↓	11:00	4	C		✓	✓	✓	

Preservative Codes

None: NO	DI Water: H_2O
Cool: Cool	MeOH: Me
HCL: HC	HNO_3: HN
H_2SO_4: H_2	NaOH: Na
H_3PO_4: HP	
$NaHSO_4$: NABIS	
$Na_2S_2O_3$: NaSO$_3$	
Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPC	

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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins 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 [signature]	[signature]	8:17 2/14	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

02.12.24

nAPP: 2329851014

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199
www.xenco.com

Work Order No: 10556210014

Page 2 of 2

Project Manager:	Sally Lanthan	Bill to: (if different)	Garrett Green
Company Name:	Ensolum / XTO.	Company Name:	XTO.
Address:		Address:	ensolum
City, State ZIP:		City, State ZIP:	
Phone:	575 361 3561	Email:	

Work Order Comments

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

Project Name:	Mis Amigos	Turn Around	
Project Number:	23E-05219	☑ Routine ☐ Rush	
Project Location:	Mis Amigos	Due Date:	
Sampler's Name:	Jesus Javier Costa	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	
Total Containers:		Corrected Temperature:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX (8021)	Parameters: Cl (300.0)	Parameters: TPH (8015D)
BH24-04 0	Soil	2.12.23	11:10	0		10		↓	↓	↓
BH24-04 2	↓	↓	11:20	2	↓	12				
BH24-04 4	↓	↓	11:30	4	↓	12				

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Sally Carthan		9:13 2/14			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6176-1
SDG Number: 23E-05219

Login Number: 6176
List Number: 1
Creator: Lopez, Abraham

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.	N/A	Refer to Job Narrative for details.
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: Vertex

Job Number: 890-6176-1
SDG Number: 23E-05219

Login Number: 6176
List Number: 2
Creator: Wheeler, Jazmine

List Source: Eurofins Midland
List Creation: 02/15/24 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

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 2/22/2024 11:59:25 AM

JOB DESCRIPTION

Mis Amigos

JOB NUMBER

890-6178-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

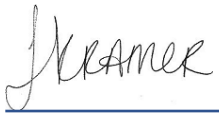
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/22/2024 11:59:25 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 890-6178-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 890-6178-1
Project/Site: Mis Amigos

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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: Vertex
Project: Mis Amigos

Job ID: 890-6178-1

Job ID: 890-6178-1 Eurofins Carlsbad

Job Narrative
890-6178-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/14/2024 8:13 AM. 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 0.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-05 0 (890-6178-1), BH24-05 2 (890-6178-2), BH24-05 4 (890-6178-3), BH24-06 0 (890-6178-4), BH24-06 2 (890-6178-5), BH24-06 4 (890-6178-6), BH24-07 0 (890-6178-7), BH24-07 2 (890-6178-8), BH24-07 4 (890-6178-9), BH24-08 0 (890-6178-10), BH24-08 2 (890-6178-11) and BH24-08 4 (890-6178-12).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73285 and analytical batch 880-73718 was outside the upper control limits.

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: The surrogate recovery for the blank associated with preparation batch 880-73300 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-06 2 (890-6178-5), BH24-08 0 (890-6178-10), (890-6178-A-1-G MS) and (890-6178-A-1-H 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 880-73300 and analytical batch 880-73423 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 0

Lab Sample ID: 890-6178-1

Date Collected: 02/13/24 10:00
Matrix: Solid
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 00:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 00:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 15:38*	*02/22/24 00:23*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/15/24 15:38*	*02/22/24 00:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 00:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/19/24 21:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:26	02/19/24 21:01	1
Diesel Range Organics (Over C10-C28)	<49.6	U F1	49.6		mg/Kg		02/15/24 17:26	02/19/24 21:01	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:26	02/19/24 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*02/15/24 17:26*	*02/19/24 21:01*	*1*
o-Terphenyl	*76*		*70 - 130*	*02/15/24 17:26*	*02/19/24 21:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.3**		4.98		mg/Kg			02/17/24 03:29	1

Client Sample ID: BH24-05 2

Lab Sample ID: 890-6178-2

Date Collected: 02/13/24 10:10
Matrix: Solid
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 00:43	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:38	02/22/24 00:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:38	02/22/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/15/24 15:38*	*02/22/24 00:43*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:38*	*02/22/24 00:43*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 2

Date Collected: 02/13/24 10:10
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 00:43	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/19/24 22:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/19/24 22:09	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/19/24 22:09	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/19/24 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:09*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.4**		5.01		mg/Kg			02/17/24 03:34	1

Client Sample ID: BH24-05 4

Date Collected: 02/13/24 10:20
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:38	02/22/24 01:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:38	02/22/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/22/24 01:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 22:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/19/24 22:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/19/24 22:31	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 4

Lab Sample ID: 890-6178-3
Matrix: Solid
Date Collected: 02/13/24 10:20
Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/19/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:31*	*1*
o-Terphenyl	*114*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**116**		5.02		mg/Kg			02/17/24 03:39	1

Client Sample ID: BH24-06 0

Lab Sample ID: 890-6178-4
Matrix: Solid
Date Collected: 02/13/24 10:30
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:38	02/22/24 01:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:38	02/22/24 01:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:38	02/22/24 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:25*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/22/24 01:25	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/19/24 22:54	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/19/24 22:54	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/19/24 22:54	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:26	02/19/24 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:54*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/15/24 17:26*	*02/19/24 22:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**122**		4.99		mg/Kg			02/17/24 03:43	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 2

Date Collected: 02/13/24 10:40
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-5
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:45	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:38	02/22/24 01:45	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:38	02/22/24 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:38*	*02/22/24 01:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 01:45	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/19/24 23:16	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 23:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 23:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/19/24 23:16*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/19/24 23:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97.8**		4.98		mg/Kg			02/17/24 03:48	1

Client Sample ID: BH24-06 4

Date Collected: 02/13/24 10:50
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-6
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 02:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/15/24 15:38	02/22/24 02:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/15/24 15:38	02/22/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:06*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:06*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 4

Lab Sample ID: 890-6178-6
Matrix: Solid
Date Collected: 02/13/24 10:50
Date Received: 02/14/24 08:13

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/22/24 02:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/19/24 23:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/19/24 23:39	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/19/24 23:39	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:26	02/19/24 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*02/15/24 17:26*	*02/19/24 23:39*	*1*
o-Terphenyl	*114*		*70 - 130*	*02/15/24 17:26*	*02/19/24 23:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.7**		5.04		mg/Kg			02/17/24 03:52	1

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7
Matrix: Solid
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 02:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/15/24 15:38	02/22/24 02:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/15/24 15:38	02/22/24 02:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:26*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/22/24 02:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/20/24 00:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:26	02/20/24 00:01	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:26	02/20/24 00:01	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7
Matrix: Solid
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:26	02/20/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:01*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.7**		5.05		mg/Kg			02/19/24 15:54	1

Client Sample ID: BH24-07 2

Lab Sample ID: 890-6178-8
Matrix: Solid
Date Collected: 02/13/24 11:10
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 02:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 02:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:47*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:38*	*02/22/24 02:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 02:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/20/24 00:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 00:23	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 00:23	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:26	02/20/24 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:23*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.9**		5.05		mg/Kg			02/19/24 16:14	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 4

Lab Sample ID: 890-6178-9

Date Collected: 02/13/24 11:20
Matrix: Solid
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 03:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:38	02/22/24 03:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:38	02/22/24 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/15/24 15:38*	*02/22/24 03:07*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:38*	*02/22/24 03:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 03:07	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/20/24 00:46	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 00:46	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 00:46	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:26	02/20/24 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:46*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/15/24 17:26*	*02/20/24 00:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.0**		4.97		mg/Kg			02/19/24 16:21	1

Client Sample ID: BH24-08 0

Lab Sample ID: 890-6178-10

Date Collected: 02/13/24 11:30
Matrix: Solid
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 03:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:38	02/22/24 03:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:38	02/22/24 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*02/15/24 15:38*	*02/22/24 03:28*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*02/15/24 15:38*	*02/22/24 03:28*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-08 0

Lab Sample ID: 890-6178-10
Matrix: Solid
Date Collected: 02/13/24 11:30
Date Received: 02/14/24 08:13

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 03:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/20/24 01:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:26	02/20/24 01:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/15/24 17:26	02/20/24 01:09	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:26	02/20/24 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 01:09*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/15/24 17:26*	*02/20/24 01:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.2**		4.96		mg/Kg			02/19/24 16:28	1

Client Sample ID: BH24-08 2

Lab Sample ID: 890-6178-11
Matrix: Solid
Date Collected: 02/13/24 11:40
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 05:19	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/15/24 15:38	02/22/24 05:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/15/24 15:38	02/22/24 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*02/15/24 15:38*	*02/22/24 05:19*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:38*	*02/22/24 05:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/22/24 05:19	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/20/24 01:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 01:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 01:53	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-08 2

Lab Sample ID: 890-6178-11
Matrix: Solid
Date Collected: 02/13/24 11:40
Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/15/24 17:26*	*02/20/24 01:53*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/15/24 17:26*	*02/20/24 01:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65.9**		4.99		mg/Kg			02/19/24 16:35	1

Client Sample ID: BH24-08 4

Lab Sample ID: 890-6178-12
Matrix: Solid
Date Collected: 02/13/24 11:50
Date Received: 02/14/24 08:13

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 05:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 05:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:38*	*02/22/24 05:39*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:38*	*02/22/24 05:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 05:39	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/20/24 02:16	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 02:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 02:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:26	02/20/24 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*02/15/24 17:26*	*02/20/24 02:16*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/15/24 17:26*	*02/20/24 02:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**71.2**		5.04		mg/Kg			02/19/24 16:55	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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)
890-6178-1	BH24-05 0	104	103
890-6178-1 MS	BH24-05 0	109	103
890-6178-1 MSD	BH24-05 0	120	97
890-6178-2	BH24-05 2	114	108
890-6178-3	BH24-05 4	123	106
890-6178-4	BH24-06 0	122	105
890-6178-5	BH24-06 2	111	105
890-6178-6	BH24-06 4	126	108
890-6178-7	BH24-07 0	120	105
890-6178-8	BH24-07 2	113	108
890-6178-9	BH24-07 4	119	107
890-6178-10	BH24-08 0	130	112
890-6178-11	BH24-08 2	93	108
890-6178-12	BH24-08 4	113	111
LCS 880-73285/1-A	Lab Control Sample	118	107
LCSD 880-73285/2-A	Lab Control Sample Dup	110	97
MB 880-73275/5-A	Method Blank	127	109
MB 880-73285/5-A	Method Blank	135 S1+	113

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)
890-6178-1	BH24-05 0	77	76
890-6178-1 MS	BH24-05 0	73	68 S1-
890-6178-1 MSD	BH24-05 0	68 S1-	64 S1-
890-6178-2	BH24-05 2	100	108
890-6178-3	BH24-05 4	104	114
890-6178-4	BH24-06 0	82	86
890-6178-5	BH24-06 2	69 S1-	69 S1-
890-6178-6	BH24-06 4	107	114
890-6178-7	BH24-07 0	78	82
890-6178-8	BH24-07 2	80	79
890-6178-9	BH24-07 4	97	104
890-6178-10	BH24-08 0	64 S1-	68 S1-
890-6178-11	BH24-08 2	101	106
890-6178-12	BH24-08 4	80	82
LCS 880-73300/2-A	Lab Control Sample	88	89
LCSD 880-73300/3-A	Lab Control Sample Dup	90	93
MB 880-73300/1-A	Method Blank	136 S1+	151 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73275/5-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:00	02/21/24 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*02/15/24 15:00*	*02/21/24 12:09*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/15/24 15:00*	*02/21/24 12:09*	*1*

Lab Sample ID: MB 880-73285/5-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73285

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/21/24 23:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*02/15/24 15:38*	*02/21/24 23:54*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:38*	*02/21/24 23:54*	*1*

Lab Sample ID: LCS 880-73285/1-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1296		mg/Kg		130	70 - 130		
Toluene			0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130		
m-Xylene & p-Xylene			0.200	0.2270		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-73285/2-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1238		mg/Kg		124	70 - 130	5	35

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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

Lab Sample ID: LCSD 880-73285/2-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1055		mg/Kg		105	70 - 130	2	35
Ethylbenzene			0.100	0.1179		mg/Kg		118	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2076		mg/Kg		104	70 - 130	9	35
o-Xylene			0.100	0.1093		mg/Kg		109	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-6178-1 MS
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: BH24-05 0
Prep Type: Total/NA
Prep Batch: 73285

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.1184		mg/Kg		118	70 - 130
Toluene	<0.00199	U	0.100	0.09893		mg/Kg		99	70 - 130
Ethylbenzene	<0.00199	U	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1850		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.100	0.09963		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-6178-1 MSD
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: BH24-05 0
Prep Type: Total/NA
Prep Batch: 73285

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1153		mg/Kg		115	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.09478		mg/Kg		94	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.1075		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1990		mg/Kg		99	70 - 130	7	35
o-Xylene	<0.00199	U	0.101	0.1099		mg/Kg		109	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-73300/1-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73300

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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

Lab Sample ID: MB 880-73300/1-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73300

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:26	02/19/24 19:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*02/15/24 17:26*	*02/19/24 19:53*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*02/15/24 17:26*	*02/19/24 19:53*	*1*

Lab Sample ID: LCS 880-73300/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73300

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	955.9		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	851.6		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: LCSD 880-73300/3-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73300

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.7		mg/Kg		93	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	858.8		mg/Kg		86	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: 890-6178-1 MS
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: BH24-05 0
Prep Type: Total/NA
Prep Batch: 73300

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1024		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	630.8	F1	mg/Kg		60	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*73*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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

Lab Sample ID: 890-6178-1 MSD
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: BH24-05 0
Prep Type: Total/NA
Prep Batch: 73300

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	<49.6	U	1000	1045		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	602.8	F1	mg/Kg		57	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73212/1-A
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/17/24 01:33	1

Lab Sample ID: LCS 880-73212/2-A
Matrix: Solid
Analysis Batch: 73435

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.8		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-73212/3-A
Matrix: Solid
Analysis Batch: 73435

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	241.4		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6176-A-9-B MS
Matrix: Solid
Analysis Batch: 73435

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	110		250	342.1		mg/Kg		93	90 - 110		

Lab Sample ID: 890-6176-A-9-C MSD
Matrix: Solid
Analysis Batch: 73435

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	110		250	344.3		mg/Kg		94	90 - 110	1	20

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-73213/1-A
Matrix: Solid
Analysis Batch: 73448

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/19/24 15:33	1

Lab Sample ID: LCS 880-73213/2-A
Matrix: Solid
Analysis Batch: 73448

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-73213/3-A
Matrix: Solid
Analysis Batch: 73448

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	260.1		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-6178-7 MS
Matrix: Solid
Analysis Batch: 73448

Client Sample ID: BH24-07 0
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	85.7		253	332.9		mg/Kg		98	90 - 110		

Lab Sample ID: 890-6178-7 MSD
Matrix: Solid
Analysis Batch: 73448

Client Sample ID: BH24-07 0
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	85.7		253	335.8		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC VOA

Prep Batch: 73275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73275/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	5035	
890-6178-2	BH24-05 2	Total/NA	Solid	5035	
890-6178-3	BH24-05 4	Total/NA	Solid	5035	
890-6178-4	BH24-06 0	Total/NA	Solid	5035	
890-6178-5	BH24-06 2	Total/NA	Solid	5035	
890-6178-6	BH24-06 4	Total/NA	Solid	5035	
890-6178-7	BH24-07 0	Total/NA	Solid	5035	
890-6178-8	BH24-07 2	Total/NA	Solid	5035	
890-6178-9	BH24-07 4	Total/NA	Solid	5035	
890-6178-10	BH24-08 0	Total/NA	Solid	5035	
890-6178-11	BH24-08 2	Total/NA	Solid	5035	
890-6178-12	BH24-08 4	Total/NA	Solid	5035	
MB 880-73285/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6178-1 MS	BH24-05 0	Total/NA	Solid	5035	
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	5035	

Analysis Batch: 73718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8021B	73285
890-6178-2	BH24-05 2	Total/NA	Solid	8021B	73285
890-6178-3	BH24-05 4	Total/NA	Solid	8021B	73285
890-6178-4	BH24-06 0	Total/NA	Solid	8021B	73285
890-6178-5	BH24-06 2	Total/NA	Solid	8021B	73285
890-6178-6	BH24-06 4	Total/NA	Solid	8021B	73285
890-6178-7	BH24-07 0	Total/NA	Solid	8021B	73285
890-6178-8	BH24-07 2	Total/NA	Solid	8021B	73285
890-6178-9	BH24-07 4	Total/NA	Solid	8021B	73285
890-6178-10	BH24-08 0	Total/NA	Solid	8021B	73285
890-6178-11	BH24-08 2	Total/NA	Solid	8021B	73285
890-6178-12	BH24-08 4	Total/NA	Solid	8021B	73285
MB 880-73275/5-A	Method Blank	Total/NA	Solid	8021B	73275
MB 880-73285/5-A	Method Blank	Total/NA	Solid	8021B	73285
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	8021B	73285
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73285
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8021B	73285
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8021B	73285

Analysis Batch: 73850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	Total BTEX	
890-6178-2	BH24-05 2	Total/NA	Solid	Total BTEX	
890-6178-3	BH24-05 4	Total/NA	Solid	Total BTEX	
890-6178-4	BH24-06 0	Total/NA	Solid	Total BTEX	
890-6178-5	BH24-06 2	Total/NA	Solid	Total BTEX	
890-6178-6	BH24-06 4	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC VOA (Continued)

Analysis Batch: 73850 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Total/NA	Solid	Total BTEX	
890-6178-8	BH24-07 2	Total/NA	Solid	Total BTEX	
890-6178-9	BH24-07 4	Total/NA	Solid	Total BTEX	
890-6178-10	BH24-08 0	Total/NA	Solid	Total BTEX	
890-6178-11	BH24-08 2	Total/NA	Solid	Total BTEX	
890-6178-12	BH24-08 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015NM Prep	
890-6178-2	BH24-05 2	Total/NA	Solid	8015NM Prep	
890-6178-3	BH24-05 4	Total/NA	Solid	8015NM Prep	
890-6178-4	BH24-06 0	Total/NA	Solid	8015NM Prep	
890-6178-5	BH24-06 2	Total/NA	Solid	8015NM Prep	
890-6178-6	BH24-06 4	Total/NA	Solid	8015NM Prep	
890-6178-7	BH24-07 0	Total/NA	Solid	8015NM Prep	
890-6178-8	BH24-07 2	Total/NA	Solid	8015NM Prep	
890-6178-9	BH24-07 4	Total/NA	Solid	8015NM Prep	
890-6178-10	BH24-08 0	Total/NA	Solid	8015NM Prep	
890-6178-11	BH24-08 2	Total/NA	Solid	8015NM Prep	
890-6178-12	BH24-08 4	Total/NA	Solid	8015NM Prep	
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8015NM Prep	
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015B NM	73300
890-6178-2	BH24-05 2	Total/NA	Solid	8015B NM	73300
890-6178-3	BH24-05 4	Total/NA	Solid	8015B NM	73300
890-6178-4	BH24-06 0	Total/NA	Solid	8015B NM	73300
890-6178-5	BH24-06 2	Total/NA	Solid	8015B NM	73300
890-6178-6	BH24-06 4	Total/NA	Solid	8015B NM	73300
890-6178-7	BH24-07 0	Total/NA	Solid	8015B NM	73300
890-6178-8	BH24-07 2	Total/NA	Solid	8015B NM	73300
890-6178-9	BH24-07 4	Total/NA	Solid	8015B NM	73300
890-6178-10	BH24-08 0	Total/NA	Solid	8015B NM	73300
890-6178-11	BH24-08 2	Total/NA	Solid	8015B NM	73300
890-6178-12	BH24-08 4	Total/NA	Solid	8015B NM	73300
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015B NM	73300
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73300
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73300
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8015B NM	73300
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8015B NM	73300

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC Semi VOA

Analysis Batch: 73645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015 NM	
890-6178-2	BH24-05 2	Total/NA	Solid	8015 NM	
890-6178-3	BH24-05 4	Total/NA	Solid	8015 NM	
890-6178-4	BH24-06 0	Total/NA	Solid	8015 NM	
890-6178-5	BH24-06 2	Total/NA	Solid	8015 NM	
890-6178-6	BH24-06 4	Total/NA	Solid	8015 NM	
890-6178-7	BH24-07 0	Total/NA	Solid	8015 NM	
890-6178-8	BH24-07 2	Total/NA	Solid	8015 NM	
890-6178-9	BH24-07 4	Total/NA	Solid	8015 NM	
890-6178-10	BH24-08 0	Total/NA	Solid	8015 NM	
890-6178-11	BH24-08 2	Total/NA	Solid	8015 NM	
890-6178-12	BH24-08 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Soluble	Solid	DI Leach	
890-6178-2	BH24-05 2	Soluble	Solid	DI Leach	
890-6178-3	BH24-05 4	Soluble	Solid	DI Leach	
890-6178-4	BH24-06 0	Soluble	Solid	DI Leach	
890-6178-5	BH24-06 2	Soluble	Solid	DI Leach	
890-6178-6	BH24-06 4	Soluble	Solid	DI Leach	
MB 880-73212/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6176-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-6176-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Soluble	Solid	DI Leach	
890-6178-8	BH24-07 2	Soluble	Solid	DI Leach	
890-6178-9	BH24-07 4	Soluble	Solid	DI Leach	
890-6178-10	BH24-08 0	Soluble	Solid	DI Leach	
890-6178-11	BH24-08 2	Soluble	Solid	DI Leach	
890-6178-12	BH24-08 4	Soluble	Solid	DI Leach	
MB 880-73213/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73213/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73213/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6178-7 MS	BH24-07 0	Soluble	Solid	DI Leach	
890-6178-7 MSD	BH24-07 0	Soluble	Solid	DI Leach	

Analysis Batch: 73435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Soluble	Solid	300.0	73212
890-6178-2	BH24-05 2	Soluble	Solid	300.0	73212
890-6178-3	BH24-05 4	Soluble	Solid	300.0	73212
890-6178-4	BH24-06 0	Soluble	Solid	300.0	73212
890-6178-5	BH24-06 2	Soluble	Solid	300.0	73212
890-6178-6	BH24-06 4	Soluble	Solid	300.0	73212

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

HPLC/IC (Continued)

Analysis Batch: 73435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73212/1-A	Method Blank	Soluble	Solid	300.0	73212
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	300.0	73212
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73212
890-6176-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	73212
890-6176-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73212

Analysis Batch: 73448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Soluble	Solid	300.0	73213
890-6178-8	BH24-07 2	Soluble	Solid	300.0	73213
890-6178-9	BH24-07 4	Soluble	Solid	300.0	73213
890-6178-10	BH24-08 0	Soluble	Solid	300.0	73213
890-6178-11	BH24-08 2	Soluble	Solid	300.0	73213
890-6178-12	BH24-08 4	Soluble	Solid	300.0	73213
MB 880-73213/1-A	Method Blank	Soluble	Solid	300.0	73213
LCS 880-73213/2-A	Lab Control Sample	Soluble	Solid	300.0	73213
LCSD 880-73213/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73213
890-6178-7 MS	BH24-07 0	Soluble	Solid	300.0	73213
890-6178-7 MSD	BH24-07 0	Soluble	Solid	300.0	73213

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 0

Lab Sample ID: 890-6178-1
Matrix: Solid
Date Collected: 02/13/24 10:00
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 00:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 00:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 21:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 21:01	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:29	CH	EET MID

Client Sample ID: BH24-05 2

Lab Sample ID: 890-6178-2
Matrix: Solid
Date Collected: 02/13/24 10:10
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 00:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 00:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 22:09	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:34	CH	EET MID

Client Sample ID: BH24-05 4

Lab Sample ID: 890-6178-3
Matrix: Solid
Date Collected: 02/13/24 10:20
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 22:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:39	CH	EET MID

Client Sample ID: BH24-06 0

Lab Sample ID: 890-6178-4
Matrix: Solid
Date Collected: 02/13/24 10:30
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:25	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 0

Lab Sample ID: 890-6178-4
Matrix: Solid
Date Collected: 02/13/24 10:30
Date Received: 02/14/24 08:13

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			73645	02/19/24 22:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:43	CH	EET MID

Client Sample ID: BH24-06 2

Lab Sample ID: 890-6178-5
Matrix: Solid
Date Collected: 02/13/24 10:40
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 23:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 23:16	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:48	CH	EET MID

Client Sample ID: BH24-06 4

Lab Sample ID: 890-6178-6
Matrix: Solid
Date Collected: 02/13/24 10:50
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 23:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 23:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:52	CH	EET MID

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7
Matrix: Solid
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:01	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7
Matrix: Solid
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 15:54	CH	EET MID

Client Sample ID: BH24-07 2

Lab Sample ID: 890-6178-8
Matrix: Solid
Date Collected: 02/13/24 11:10
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:14	CH	EET MID

Client Sample ID: BH24-07 4

Lab Sample ID: 890-6178-9
Matrix: Solid
Date Collected: 02/13/24 11:20
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 03:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 03:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:46	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:21	CH	EET MID

Client Sample ID: BH24-08 0

Lab Sample ID: 890-6178-10
Matrix: Solid
Date Collected: 02/13/24 11:30
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 03:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 03:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 01:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 01:09	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:28	CH	EET MID

Lab Chronicle

Client: Vertex
Job ID: 890-6178-1
Project/Site: Mis Amigos

Client Sample ID: BH24-08 2
Lab Sample ID: 890-6178-11
Date Collected: 02/13/24 11:40
Matrix: Solid
Date Received: 02/14/24 08:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 05:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 05:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 01:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 01:53	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:35	CH	EET MID

Client Sample ID: BH24-08 4
Lab Sample ID: 890-6178-12
Date Collected: 02/13/24 11:50
Matrix: Solid
Date Received: 02/14/24 08:13

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 05:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 05:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 02:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 02:16	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:55	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
Job ID: 890-6178-1
Project/Site: Mis Amigos

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	T104704400-23-26	06-30-24

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: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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:

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

Sample Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6178-1	BH24-05 0	Solid	02/13/24 10:00	02/14/24 08:13
890-6178-2	BH24-05 2	Solid	02/13/24 10:10	02/14/24 08:13
890-6178-3	BH24-05 4	Solid	02/13/24 10:20	02/14/24 08:13
890-6178-4	BH24-06 0	Solid	02/13/24 10:30	02/14/24 08:13
890-6178-5	BH24-06 2	Solid	02/13/24 10:40	02/14/24 08:13
890-6178-6	BH24-06 4	Solid	02/13/24 10:50	02/14/24 08:13
890-6178-7	BH24-07 0	Solid	02/13/24 11:00	02/14/24 08:13
890-6178-8	BH24-07 2	Solid	02/13/24 11:10	02/14/24 08:13
890-6178-9	BH24-07 4	Solid	02/13/24 11:20	02/14/24 08:13
890-6178-10	BH24-08 0	Solid	02/13/24 11:30	02/14/24 08:13
890-6178-11	BH24-08 2	Solid	02/13/24 11:40	02/14/24 08:13
890-6178-12	BH24-08 4	Solid	02/13/24 11:50	02/14/24 08:13

02.13.24 NAPP: 2329851014

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 1055621001

www.xenco.com Page 1 of 2

Project Manager:	Sally Carttar	Bill to: (if different)	Garrett Green
Company Name:	Vertex / XTO.	Company Name:	XTO.
Address:		Address:	
City, State ZIP:	on file	City, State ZIP:	on file
Phone:		Email:	

Work Order Comments

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

Project Name:	Mis Amigos	Turn Around	
Project Number:	23E 05 2109	☑ Routine	☐ Rush
Project Location:	Mis Amigos	Due Date:	
Sampler's Name:	Deusavon Costa	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No		Thermometer ID:	TNmoc7
Cooler Custody Seals:	Yes No (N/A)		Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)		Temperature Reading:	0.4
Total Containers:			Corrected Temperature:	0.2

ANALYSIS REQUEST

890-6178 Chain of Custody

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	BTEX (8021)	Cl	TPH (8015D)	Sample Comments
BH23-05	0'	Soil	02.13.24	10:00	0	C	1	✓	✓	✓	
BH23-05	2'	↓	↓	10:10	2	↓		↓	↓	↓	
BH24-05	4'			10:20	4						
BH24-06	0'			10:30	0						
BH24-06	2'			10:40	2						
BH24-06	4'			10:50	4						
BH24-07	0'			11:00	0						
BH24-07	2'			11:10	2						
BH24-07	4'	↓	↓	11:20	4	↓	9	↓	↓	↓	

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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins 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	Sally Carttar	abraham	9:13 2/14	2			
3				4			
5				6			

Revised Date: 08/25/2020 Rev. 2020.2

02.13.24

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

nAPP: 2329851014

Work Order No: 1055621001

www.xenco.com Page 2 of 2

Project Manager:	Sally Carttar	Bill to: (if different)	Garrett Green
Company Name:	Vertex XTO	Company Name:	XTO
Address:	on file	Address:	on file
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Work Order Comments

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

Project Name:	Mis Amigos	Turn Around	☒ Routine ☐ Rush
Project Number:	23E05219	Due Date:	
Project Location:	Mis Amigos	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Hussayan Costa		
PO #:			

SAMPLE RECEIPT	Temp Blank: Yes No	Wet Ice: Yes No
Samples Received Intact:	Yes No	Thermometer ID:
Cooler Custody Seals:	Yes No N/A	Correction Factor:
Sample Custody Seals:	Yes No N/A	Temperature Reading:
Total Containers:		Corrected Temperature:

ANALYSIS REQUEST — Parameters: BTEX (8021), TPH (8015D)

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	BTEX (8021)	TPH (8015D)	Sample Comments
BH24_08	0	Soil	02.13.24	11:30	0	C	10	✓	✓	
BH24_08	2	↓	↓	11:40	2	↓	11	↓	↓	
BH24_08	4	↓	↓	11:50	4	↓	12	↓	↓	

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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Sally Carttar	[signature]	8:13 2/14	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6178-1
SDG Number:

Login Number: 6178
List Number: 1
Creator: Lopez, Abraham

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.	N/A	Refer to Job Narrative for details.
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: Vertex

Job Number: 890-6178-1
SDG Number:

Login Number: 6178
List Number: 2
Creator: Wheeler, Jazmine

List Source: Eurofins Midland
List Creation: 02/15/24 11:41 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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 3/8/2024 12:59:43 PM

JOB DESCRIPTION

Mis Amigos tank battery
23E-05219

JOB NUMBER

890-6296-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

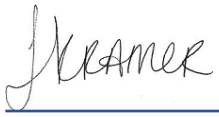
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos tank battery

Laboratory Job ID: 890-6296-1
SDG: 23E-05219

Table of Contents

Eurofins Carlsbad
3/8/2024

Definitions/Glossary

Client: Vertex Job ID: 890-6296-1
Project/Site: Mis Amigos tank battery SDG: 23E-05219

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Vertex Job ID: 890-6296-1
Project: Mis Amigos tank battery

Job ID: 890-6296-1 Eurofins Carlsbad

Job Narrative
890-6296-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/1/2024 9:16 AM. 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 0.2°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-09 0 (890-6296-1), BH24-09 2 (890-6296-2), BH24-11 0 (890-6296-3), BH24-11 2 (890-6296-4), BH24-12 0 (890-6296-5), BH24-12 4 (890-6296-6), BH24-12 8 (890-6296-7), BH24-13 0 (890-6296-8), BH24-13 2 (890-6296-9), BH24-14 0 (890-6296-10), BH24-14 2 (890-6296-11), BH24-15 0 (890-6296-12), BH24-15 2 (890-6296-13), BH24-17 0 (890-6296-14), BH24-17 2 (890-6296-15), BH24-18 0 (890-6296-16), BH24-18 2 (890-6296-17), BH24-19 0 (890-6296-18), BH24-19 2 (890-6296-19), BH24-20 0 (890-6296-20) and BH24-20 2 (890-6296-21).

GC VOA
Method 8021B: <The continuing calibration verification (CCV) associated with batch 880-74575 recovered under the lower control limit for Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-74750 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-74750/2), (CCV 880-74750/20) and (CCV 880-74750/64).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-74689 and analytical batch 880-74750 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-74676 and analytical batch 880-74575 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-74750 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-74750/33) and (CCV 880-74750/51).

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: The surrogate recovery for the blank associated with preparation batch 880-74822 and analytical batch 880-74778 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-11 2 (890-6296-4), BH24-12 0 (890-6296-5), BH24-12 8 (890-6296-7), BH24-13 0 (890-6296-8) and (890-6289-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Case Narrative

Client: Vertex Job ID: 890-6296-1
Project: Mis Amigos tank battery

Job ID: 890-6296-1 (Continued) Eurofins Carlsbad

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-74822/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74838 and analytical batch 880-74861 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH24-14 0 (890-6296-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74834 and analytical batch 880-74863 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-14 2 (890-6296-11), BH24-15 0 (890-6296-12), BH24-15 2 (890-6296-13), BH24-17 0 (890-6296-14), BH24-17 2 (890-6296-15), BH24-18 0 (890-6296-16), BH24-18 2 (890-6296-17), BH24-19 0 (890-6296-18), BH24-20 0 (890-6296-20), (890-6296-A-11-D MS) and (890-6296-A-11-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
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-74627 and analytical batch 880-74903 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 0

Date Collected: 02/27/24 11:40
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Toluene	<0.00199	U F1 *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 12:33	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		03/04/24 14:32	03/05/24 12:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/04/24 14:32	03/05/24 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:33*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/05/24 12:33	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/06/24 03:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/05/24 14:08	03/06/24 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/05/24 14:08	03/06/24 03:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/05/24 14:08	03/06/24 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*03/05/24 14:08*	*03/06/24 03:47*	*1*
o-Terphenyl	*129*		*70 - 130*	*03/05/24 14:08*	*03/06/24 03:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**204**		5.04		mg/Kg			03/07/24 23:04	1

Client Sample ID: BH24-09 2

Date Collected: 02/27/24 12:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Toluene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 12:54	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 12:54	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:54*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:54*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 2

Date Collected: 02/27/24 12:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/05/24 12:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			03/06/24 04:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		03/05/24 14:08	03/06/24 04:08	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		03/05/24 14:08	03/06/24 04:08	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		03/05/24 14:08	03/06/24 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/05/24 14:08*	*03/06/24 04:08*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/05/24 14:08*	*03/06/24 04:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**116**		5.05		mg/Kg			03/07/24 23:11	1

Client Sample ID: BH24-11 0

Date Collected: 02/28/24 13:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Toluene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 13:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 13:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:14*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/05/24 13:14	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**50.7**		49.9		mg/Kg			03/06/24 04:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/05/24 14:08	03/06/24 04:31	1
Diesel Range Organics (Over C10-C28)	**50.7**		49.9		mg/Kg		03/05/24 14:08	03/06/24 04:31	1

Eurofins Carlsbad

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-11 0

Lab Sample ID: 890-6296-3
Matrix: Solid
Date Collected: 02/28/24 13:00
Date Received: 03/01/24 09:16

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/05/24 14:08	03/06/24 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*03/05/24 14:08*	*03/06/24 04:31*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/05/24 14:08*	*03/06/24 04:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**202**		5.01		mg/Kg			03/07/24 23:18	1

Client Sample ID: BH24-11 2

Lab Sample ID: 890-6296-4
Matrix: Solid
Date Collected: 02/28/24 13:10
Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 13:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:34*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/05/24 13:34	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/06/24 04:54	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 04:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 04:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*03/05/24 14:08*	*03/06/24 04:54*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 04:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.5**		4.98		mg/Kg			03/07/24 23:25	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 0

Date Collected: 02/27/24 13:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-5

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/04/24 14:32	03/05/24 13:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/04/24 14:32	03/05/24 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:55*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/04/24 14:32*	*03/05/24 13:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/05/24 13:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			03/06/24 05:15	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		03/05/24 14:08	03/06/24 05:15	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		03/05/24 14:08	03/06/24 05:15	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		03/05/24 14:08	03/06/24 05:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 05:15*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 05:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7030**	**F1**	49.6		mg/Kg			03/07/24 23:32	10

Client Sample ID: BH24-12 4

Date Collected: 02/28/24 13:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-6

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Toluene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 14:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/04/24 14:32	03/05/24 14:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/04/24 14:32	03/05/24 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:15*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:15*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 4

Date Collected: 02/28/24 13:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-6
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/05/24 14:15	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			03/06/24 05:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		03/05/24 14:08	03/06/24 05:36	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		03/05/24 14:08	03/06/24 05:36	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		03/05/24 14:08	03/06/24 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/05/24 14:08*	*03/06/24 05:36*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/05/24 14:08*	*03/06/24 05:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2650**		25.2		mg/Kg			03/07/24 23:54	5

Client Sample ID: BH24-12 8

Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-7
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 14:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 14:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:36*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/05/24 14:36	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			03/06/24 05:57	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		03/05/24 14:08	03/06/24 05:57	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		03/05/24 14:08	03/06/24 05:57	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 8

Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-7
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		03/05/24 14:08	03/06/24 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*03/05/24 14:08*	*03/06/24 05:57*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 05:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2520**		25.3		mg/Kg			03/08/24 00:01	5

Client Sample ID: BH24-13 0

Date Collected: 02/28/24 09:45
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-8
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 14:56	1
Toluene	<0.00199	U *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 14:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/04/24 14:32	03/05/24 14:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/04/24 14:32	03/05/24 14:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/04/24 14:32	03/05/24 14:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/04/24 14:32	03/05/24 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:56*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/04/24 14:32*	*03/05/24 14:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/05/24 14:56	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/06/24 06:18	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 06:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 06:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/06/24 06:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*151*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 06:18*	*1*
o-Terphenyl	*165*	*S1+*	*70 - 130*	*03/05/24 14:08*	*03/06/24 06:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.5**		5.01		mg/Kg			03/08/24 00:22	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-13 2

Date Collected: 02/28/24 09:55
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-9
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Toluene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 15:17	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/04/24 14:32	03/05/24 15:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/04/24 14:32	03/05/24 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/04/24 14:32*	*03/05/24 15:17*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/04/24 14:32*	*03/05/24 15:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/05/24 15:17	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			03/06/24 10:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		03/05/24 17:05	03/06/24 10:45	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		03/05/24 17:05	03/06/24 10:45	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		03/05/24 17:05	03/06/24 10:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*03/05/24 17:05*	*03/06/24 10:45*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/05/24 17:05*	*03/06/24 10:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.9**		5.01		mg/Kg			03/08/24 00:30	1

Client Sample ID: BH24-14 0

Date Collected: 02/28/24 10:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-10
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Toluene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 15:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 15:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/04/24 14:32*	*03/05/24 15:37*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/04/24 14:32*	*03/05/24 15:37*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 0

Lab Sample ID: 890-6296-10
Matrix: Solid
Date Collected: 02/28/24 10:00
Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/05/24 15:37	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			03/06/24 11:51	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		03/05/24 17:05	03/06/24 11:51	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		03/05/24 17:05	03/06/24 11:51	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		03/05/24 17:05	03/06/24 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*58*	*S1-*	*70 - 130*	*03/05/24 17:05*	*03/06/24 11:51*	*1*
o-Terphenyl	*51*	*S1-*	*70 - 130*	*03/05/24 17:05*	*03/06/24 11:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.5**		5.00		mg/Kg			03/08/24 00:37	1

Client Sample ID: BH24-14 2

Lab Sample ID: 890-6296-11
Matrix: Solid
Date Collected: 02/28/24 10:05
Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Toluene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 17:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 17:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*03/04/24 14:32*	*03/05/24 17:28*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/04/24 14:32*	*03/05/24 17:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/05/24 17:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			03/06/24 10:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 10:45	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 10:45	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 2

Date Collected: 02/28/24 10:05
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-11
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 10:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*149*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 10:45*	*1*
o-Terphenyl	*169*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 10:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.1**		4.99		mg/Kg			03/08/24 00:44	1

Client Sample ID: BH24-15 0

Date Collected: 02/28/24 10:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 17:48	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 17:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 17:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 17:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 17:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/04/24 14:32*	*03/05/24 17:48*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*03/04/24 14:32*	*03/05/24 17:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/05/24 17:48	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			03/06/24 11:51	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 11:51	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 11:51	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*03/05/24 16:53*	*03/06/24 11:51*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 11:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8820**		50.4		mg/Kg			03/08/24 00:51	10

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-15 2

Date Collected: 02/28/24 10:40
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-13
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/04/24 14:32	03/05/24 18:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/04/24 14:32	03/05/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:09*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/05/24 18:09	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/06/24 12:13	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 12:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 12:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 12:13*	*1*
o-Terphenyl	*153*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 12:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.2**		5.02		mg/Kg			03/08/24 00:58	1

Client Sample ID: BH24-17 0

Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-14
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Toluene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 18:30	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/04/24 14:32	03/05/24 18:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/04/24 14:32	03/05/24 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:30*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:30*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 0

Lab Sample ID: 890-6296-14
Matrix: Solid
Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/05/24 18:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/06/24 12:34	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/05/24 16:53	03/06/24 12:34	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/05/24 16:53	03/06/24 12:34	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/05/24 16:53	03/06/24 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*03/05/24 16:53*	*03/06/24 12:34*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 12:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12000**		99.6		mg/Kg			03/08/24 01:05	20

Client Sample ID: BH24-17 2

Lab Sample ID: 890-6296-15
Matrix: Solid
Date Collected: 02/28/24 11:00
Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 18:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:50*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/04/24 14:32*	*03/05/24 18:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/05/24 18:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			03/06/24 12:56	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 12:56	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 12:56	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 2

Date Collected: 02/28/24 11:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-15
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*03/05/24 16:53*	*03/06/24 12:56*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 12:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**371**		25.1		mg/Kg			03/08/24 02:02	5

Client Sample ID: BH24-18 0

Date Collected: 02/28/24 11:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-16
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Toluene	<0.00198	U *1	0.00198		mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 19:11	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/04/24 14:32	03/05/24 19:11	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/04/24 14:32	03/05/24 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:11*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/05/24 19:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			03/06/24 13:17	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 13:17	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 13:17	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		03/05/24 16:53	03/06/24 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*03/05/24 16:53*	*03/06/24 13:17*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 13:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**234**		25.1		mg/Kg			03/08/24 02:24	5

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-18 2

Date Collected: 02/28/24 11:45
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-17
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Toluene	<0.00202	U *1	0.00202		mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 19:31	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 19:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/04/24 14:32	03/05/24 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:31*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/05/24 19:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			03/06/24 13:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		03/05/24 16:53	03/06/24 13:39	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		03/05/24 16:53	03/06/24 13:39	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		03/05/24 16:53	03/06/24 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*152*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 13:39*	*1*
o-Terphenyl	*169*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 13:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**356**		25.3		mg/Kg			03/08/24 02:31	5

Client Sample ID: BH24-19 0

Date Collected: 02/28/24 12:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-18
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Toluene	<0.00201	U *1	0.00201		mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 19:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 19:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/04/24 14:32	03/05/24 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:52*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/04/24 14:32*	*03/05/24 19:52*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-19 0

Lab Sample ID: 890-6296-18
Matrix: Solid
Date Collected: 02/28/24 12:00
Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/05/24 19:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			03/06/24 14:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		03/05/24 16:53	03/06/24 14:00	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		03/05/24 16:53	03/06/24 14:00	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		03/05/24 16:53	03/06/24 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 14:00*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 14:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		5.04		mg/Kg			03/08/24 02:38	1

Client Sample ID: BH24-19 2

Lab Sample ID: 890-6296-19
Matrix: Solid
Date Collected: 02/29/24 12:15
Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Toluene	<0.00200	U *1	0.00200		mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 20:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 20:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/04/24 14:32	03/05/24 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/04/24 14:32*	*03/05/24 20:12*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/04/24 14:32*	*03/05/24 20:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/05/24 20:12	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			03/06/24 14:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 14:22	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 14:22	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-19 2

Date Collected: 02/29/24 12:15
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-19
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		03/05/24 16:53	03/06/24 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/05/24 16:53*	*03/06/24 14:22*	*1*
o-Terphenyl	*116*		*70 - 130*	*03/05/24 16:53*	*03/06/24 14:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**140**		4.99		mg/Kg			03/08/24 02:45	1

Client Sample ID: BH24-20 0

Date Collected: 02/29/24 12:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-20
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 20:33	1
Toluene	<0.00199	U *1	0.00199		mg/Kg		03/04/24 14:32	03/05/24 20:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/04/24 14:32	03/05/24 20:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/04/24 14:32	03/05/24 20:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/04/24 14:32	03/05/24 20:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/04/24 14:32	03/05/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/04/24 14:32*	*03/05/24 20:33*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/04/24 14:32*	*03/05/24 20:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/05/24 20:33	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/06/24 14:44	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/05/24 16:53	03/06/24 14:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/05/24 16:53	03/06/24 14:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/05/24 16:53	03/06/24 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*147*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 14:44*	*1*
o-Terphenyl	*158*	*S1+*	*70 - 130*	*03/05/24 16:53*	*03/06/24 14:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14300**		248		mg/Kg			03/08/24 03:07	50

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-20 2

Date Collected: 02/29/24 12:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-21

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		03/05/24 13:30	03/06/24 03:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/05/24 13:30	03/06/24 03:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/05/24 13:30	03/06/24 03:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/05/24 13:30	03/06/24 03:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/05/24 13:30	03/06/24 03:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/05/24 13:30	03/06/24 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/05/24 13:30*	*03/06/24 03:34*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/05/24 13:30*	*03/06/24 03:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/06/24 03:34	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			03/06/24 15:27	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 15:27	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 15:27	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		03/05/24 16:53	03/06/24 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*03/05/24 16:53*	*03/06/24 15:27*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/05/24 16:53*	*03/06/24 15:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**253**		4.98		mg/Kg			03/08/24 03:14	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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)
880-40191-A-1-C MS	Matrix Spike	94	100
880-40191-A-1-D MSD	Matrix Spike Duplicate	101	101
890-6296-1	BH24-09 0	85	103
890-6296-1 MS	BH24-09 0	97	113
890-6296-1 MSD	BH24-09 0	107	101
890-6296-2	BH24-09 2	103	110
890-6296-3	BH24-11 0	105	107
890-6296-4	BH24-11 2	108	114
890-6296-5	BH24-12 0	107	103
890-6296-6	BH24-12 4	106	109
890-6296-7	BH24-12 8	111	105
890-6296-8	BH24-13 0	112	113
890-6296-9	BH24-13 2	107	108
890-6296-10	BH24-14 0	111	109
890-6296-11	BH24-14 2	84	105
890-6296-12	BH24-15 0	110	115
890-6296-13	BH24-15 2	108	113
890-6296-14	BH24-17 0	105	110
890-6296-15	BH24-17 2	111	110
890-6296-16	BH24-18 0	106	113
890-6296-17	BH24-18 2	104	113
890-6296-18	BH24-19 0	120	102
890-6296-19	BH24-19 2	116	104
890-6296-20	BH24-20 0	109	107
890-6296-21	BH24-20 2	102	109
LCS 880-74676/1-A	Lab Control Sample	80	108
LCS 880-74689/1-A	Lab Control Sample	94	104
LCSD 880-74676/2-A	Lab Control Sample Dup	103	105
LCSD 880-74689/2-A	Lab Control Sample Dup	105	99
MB 880-74652/5-A	Method Blank	77	98
MB 880-74676/5-A	Method Blank	129	123
MB 880-74689/5-A	Method Blank	78	98

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)
890-6289-A-1-D MS	Matrix Spike	126	128
890-6289-A-1-E MSD	Matrix Spike Duplicate	118	120
890-6296-1	BH24-09 0	121	129
890-6296-2	BH24-09 2	107	113
890-6296-3	BH24-11 0	115	119
890-6296-4	BH24-11 2	129	139 S1+
890-6296-5	BH24-12 0	134 S1+	145 S1+

Surrogate Summary

Client: Vertex Job ID: 890-6296-1
Project/Site: Mis Amigos tank battery SDG: 23E-05219

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-6296-6	BH24-12 4	113	122								
890-6296-7	BH24-12 8	124	134 S1+								
890-6296-8	BH24-13 0	151 S1+	165 S1+								
890-6296-9	BH24-13 2	122	109								
890-6296-9 MS	BH24-13 2	117	98								
890-6296-9 MSD	BH24-13 2	116	99								
890-6296-10	BH24-14 0	58 S1-	51 S1-								
890-6296-11	BH24-14 2	149 S1+	169 S1+								
890-6296-11 MS	BH24-14 2	129	135 S1+								
890-6296-11 MSD	BH24-14 2	128	132 S1+								
890-6296-12	BH24-15 0	123	139 S1+								
890-6296-13	BH24-15 2	136 S1+	153 S1+								
890-6296-14	BH24-17 0	127	143 S1+								
890-6296-15	BH24-17 2	117	131 S1+								
890-6296-16	BH24-18 0	122	134 S1+								
890-6296-17	BH24-18 2	152 S1+	169 S1+								
890-6296-18	BH24-19 0	132 S1+	141 S1+								
890-6296-19	BH24-19 2	109	116								
890-6296-20	BH24-20 0	147 S1+	158 S1+								
890-6296-21	BH24-20 2	119	128								
LCS 880-74822/2-A	Lab Control Sample	102	133 S1+								
LCS 880-74834/2-A	Lab Control Sample	97	102								
LCS 880-74838/2-A	Lab Control Sample	108	117								
LCSD 880-74822/3-A	Lab Control Sample Dup	95	118								
LCSD 880-74834/3-A	Lab Control Sample Dup	90	95								
LCSD 880-74838/3-A	Lab Control Sample Dup	103	102								
MB 880-74822/1-A	Method Blank	132 S1+	146 S1+								
MB 880-74834/1-A	Method Blank	121	139 S1+								
MB 880-74838/1-A	Method Blank	38 S1-	29 S1-								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-74652/5-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74652

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 13:22	03/05/24 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/04/24 13:22	03/05/24 11:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/04/24 13:22	03/05/24 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*03/04/24 13:22*	*03/05/24 11:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/04/24 13:22*	*03/05/24 11:33*	*1*

Lab Sample ID: MB 880-74676/5-A
Matrix: Solid
Analysis Batch: 74575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74676

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 12:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 12:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/04/24 14:32	03/05/24 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:04*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*03/04/24 14:32*	*03/05/24 12:04*	*1*

Lab Sample ID: LCS 880-74676/1-A
Matrix: Solid
Analysis Batch: 74575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74676

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1072		mg/Kg		107	70 - 130		
Toluene			0.100	0.09951		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.08508		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1669		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08374		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-74676/2-A
Matrix: Solid
Analysis Batch: 74575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74676

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1187		mg/Kg		119	70 - 130	10	35

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-74676/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 74575 — **Prep Batch: 74676**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1005		mg/Kg		101	70 - 130	1	35
Ethylbenzene			0.100	0.1114		mg/Kg		111	70 - 130	27	35
m-Xylene & p-Xylene			0.200	0.2049		mg/Kg		102	70 - 130	20	35
o-Xylene			0.100	0.1108		mg/Kg		111	70 - 130	28	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-6296-1 MS — **Client Sample ID: BH24-09 0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 74575 — **Prep Batch: 74676**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1 *1	0.101	0.1341	F1	mg/Kg		133	70 - 130
Toluene	<0.00199	U F1 *1	0.101	0.1316	F1	mg/Kg		131	70 - 130
Ethylbenzene	<0.00199	U F1	0.101	0.1331	F1	mg/Kg		132	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.2848	F1	mg/Kg		141	70 - 130
o-Xylene	<0.00199	U	0.101	0.09703		mg/Kg		96	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: 890-6296-1 MSD — **Client Sample ID: BH24-09 0**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 74575 — **Prep Batch: 74676**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 *1	0.100	0.1215		mg/Kg		121	70 - 130	10	35
Toluene	<0.00199	U F1 *1	0.100	0.1059		mg/Kg		105	70 - 130	22	35
Ethylbenzene	<0.00199	U F1	0.100	0.1171		mg/Kg		117	70 - 130	13	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.2416		mg/Kg		120	70 - 130	16	35
o-Xylene	<0.00199	U	0.100	0.1151		mg/Kg		115	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-74689/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 74750 — **Prep Batch: 74689**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/04/24 15:22	03/05/24 22:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/04/24 15:22	03/05/24 22:18	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-74689/5-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/04/24 15:22	03/05/24 22:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*03/04/24 15:22*	*03/05/24 22:18*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/04/24 15:22*	*03/05/24 22:18*	*1*

Lab Sample ID: LCS 880-74689/1-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74689

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1404	*+	mg/Kg		140	70 - 130		
Toluene			0.100	0.1078		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1083		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			0.200	0.2137		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1036		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-74689/2-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74689

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1235		mg/Kg		123	70 - 130	13	35
Toluene			0.100	0.1105		mg/Kg		111	70 - 130	2	35
Ethylbenzene			0.100	0.1170		mg/Kg		117	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2376		mg/Kg		119	70 - 130	11	35
o-Xylene			0.100	0.1159		mg/Kg		116	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-40191-A-1-C MS
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U *+	0.101	0.07447		mg/Kg		74	70 - 130		
Toluene	<0.00199	U F1	0.101	0.05837	F1	mg/Kg		58	70 - 130		
Ethylbenzene	<0.00199	U F1	0.101	0.06249	F1	mg/Kg		62	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1174	F1	mg/Kg		58	70 - 130		
o-Xylene	<0.00199	U F1	0.101	0.06176	F1	mg/Kg		61	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: 880-40191-A-1-C MS
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 74689

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-40191-A-1-D MSD
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U *+	0.100	0.08270		mg/Kg		83	70 - 130	10	35
Toluene	<0.00199	U F1	0.100	0.06391	F1	mg/Kg		64	70 - 130	9	35
Ethylbenzene	<0.00199	U F1	0.100	0.06490	F1	mg/Kg		65	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1212	F1	mg/Kg		61	70 - 130	3	35
o-Xylene	<0.00199	U F1	0.100	0.06397	F1	mg/Kg		64	70 - 130	4	35

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

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

Lab Sample ID: MB 880-74822/1-A
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74822

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/05/24 21:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 14:08	03/05/24 21:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	03/05/24 14:08	03/05/24 21:07	1
o-Terphenyl	146	S1+	70 - 130	03/05/24 14:08	03/05/24 21:07	1

Lab Sample ID: LCS 880-74822/2-A
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74822

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1143		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	855.1		mg/Kg		86	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	133	S1+	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-74822/3-A
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74822

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1055		mg/Kg		106	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	797.0		mg/Kg		80	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: 890-6289-A-1-D MS
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 74822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	1012		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	57.4		1010	994.0		mg/Kg		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*126*		*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Lab Sample ID: 890-6289-A-1-E MSD
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 74822

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	<50.1	U	1010	958.7		mg/Kg		90	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	57.4		1010	932.9		mg/Kg		87	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: MB 880-74834/1-A
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74834

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-74834/1-A
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74834

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	03/05/24 16:53	03/06/24 08:13	1
o-Terphenyl	139	S1+	70 - 130	03/05/24 16:53	03/06/24 08:13	1

Lab Sample ID: LCS 880-74834/2-A
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74834

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1066		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1137		mg/Kg		114	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-74834/3-A
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74834

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1123		mg/Kg		112	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 890-6296-11 MS
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: BH24-14 2
Prep Type: Total/NA
Prep Batch: 74834

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	1103		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1036		mg/Kg		100	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	135	S1+	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: 890-6296-11 MSD
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: BH24-14 2
Prep Type: Total/NA
Prep Batch: 74834

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	<49.7	U	1010	1170		mg/Kg		112	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1032		mg/Kg		99	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*128*		*70 - 130*
o-Terphenyl	*132*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-74838/1-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74838

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 17:05	03/06/24 08:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 17:05	03/06/24 08:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 17:05	03/06/24 08:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*38*	*S1-*	*70 - 130*	*03/05/24 17:05*	*03/06/24 08:13*	*1*
o-Terphenyl	*29*	*S1-*	*70 - 130*	*03/05/24 17:05*	*03/06/24 08:13*	*1*

Lab Sample ID: LCS 880-74838/2-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74838

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1117		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	960.8		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: LCSD 880-74838/3-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74838

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1053		mg/Kg		105	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	890.5		mg/Kg		89	70 - 130	8	20

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-74838/3-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74838

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-6296-9 MS
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: BH24-13 2
Prep Type: Total/NA
Prep Batch: 74838

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	867.6		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	929.0		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-6296-9 MSD
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: BH24-13 2
Prep Type: Total/NA
Prep Batch: 74838

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	<49.7	U	1010	849.2		mg/Kg		80	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	945.7		mg/Kg		91	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	99		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-74627/1-A
Matrix: Solid
Analysis Batch: 74903

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/07/24 21:31	1

Lab Sample ID: LCS 880-74627/2-A
Matrix: Solid
Analysis Batch: 74903

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	256.9		mg/Kg		103	90 - 110

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-74627/3-A
Matrix: Solid
Analysis Batch: 74903

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	254.9		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-6296-5 MS
Matrix: Solid
Analysis Batch: 74903

Client Sample ID: BH24-12 0
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	7030	F1	2480	9130	F1	mg/Kg		85	90 - 110

Lab Sample ID: 890-6296-5 MSD
Matrix: Solid
Analysis Batch: 74903

Client Sample ID: BH24-12 0
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	7030	F1	2480	9208	F1	mg/Kg		88	90 - 110	1	20

Lab Sample ID: MB 880-74628/1-A
Matrix: Solid
Analysis Batch: 74929

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/08/24 01:41	1

Lab Sample ID: LCS 880-74628/2-A
Matrix: Solid
Analysis Batch: 74929

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	263.3		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-74628/3-A
Matrix: Solid
Analysis Batch: 74929

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	263.0		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-6296-15 MS
Matrix: Solid
Analysis Batch: 74929

Client Sample ID: BH24-17 2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	371		1260	1532		mg/Kg		93	90 - 110

Lab Sample ID: 890-6296-15 MSD
Matrix: Solid
Analysis Batch: 74929

Client Sample ID: BH24-17 2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	371		1260	1544		mg/Kg		94	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC VOA

Analysis Batch: 74575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8021B	74676
890-6296-2	BH24-09 2	Total/NA	Solid	8021B	74676
890-6296-3	BH24-11 0	Total/NA	Solid	8021B	74676
890-6296-4	BH24-11 2	Total/NA	Solid	8021B	74676
890-6296-5	BH24-12 0	Total/NA	Solid	8021B	74676
890-6296-6	BH24-12 4	Total/NA	Solid	8021B	74676
890-6296-7	BH24-12 8	Total/NA	Solid	8021B	74676
890-6296-8	BH24-13 0	Total/NA	Solid	8021B	74676
890-6296-9	BH24-13 2	Total/NA	Solid	8021B	74676
890-6296-10	BH24-14 0	Total/NA	Solid	8021B	74676
890-6296-11	BH24-14 2	Total/NA	Solid	8021B	74676
890-6296-12	BH24-15 0	Total/NA	Solid	8021B	74676
890-6296-13	BH24-15 2	Total/NA	Solid	8021B	74676
890-6296-14	BH24-17 0	Total/NA	Solid	8021B	74676
890-6296-15	BH24-17 2	Total/NA	Solid	8021B	74676
890-6296-16	BH24-18 0	Total/NA	Solid	8021B	74676
890-6296-17	BH24-18 2	Total/NA	Solid	8021B	74676
890-6296-18	BH24-19 0	Total/NA	Solid	8021B	74676
890-6296-19	BH24-19 2	Total/NA	Solid	8021B	74676
890-6296-20	BH24-20 0	Total/NA	Solid	8021B	74676
MB 880-74676/5-A	Method Blank	Total/NA	Solid	8021B	74676
LCS 880-74676/1-A	Lab Control Sample	Total/NA	Solid	8021B	74676
LCSD 880-74676/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74676
890-6296-1 MS	BH24-09 0	Total/NA	Solid	8021B	74676
890-6296-1 MSD	BH24-09 0	Total/NA	Solid	8021B	74676

Prep Batch: 74652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-74652/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 74676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	5035	
890-6296-2	BH24-09 2	Total/NA	Solid	5035	
890-6296-3	BH24-11 0	Total/NA	Solid	5035	
890-6296-4	BH24-11 2	Total/NA	Solid	5035	
890-6296-5	BH24-12 0	Total/NA	Solid	5035	
890-6296-6	BH24-12 4	Total/NA	Solid	5035	
890-6296-7	BH24-12 8	Total/NA	Solid	5035	
890-6296-8	BH24-13 0	Total/NA	Solid	5035	
890-6296-9	BH24-13 2	Total/NA	Solid	5035	
890-6296-10	BH24-14 0	Total/NA	Solid	5035	
890-6296-11	BH24-14 2	Total/NA	Solid	5035	
890-6296-12	BH24-15 0	Total/NA	Solid	5035	
890-6296-13	BH24-15 2	Total/NA	Solid	5035	
890-6296-14	BH24-17 0	Total/NA	Solid	5035	
890-6296-15	BH24-17 2	Total/NA	Solid	5035	
890-6296-16	BH24-18 0	Total/NA	Solid	5035	
890-6296-17	BH24-18 2	Total/NA	Solid	5035	
890-6296-18	BH24-19 0	Total/NA	Solid	5035	
890-6296-19	BH24-19 2	Total/NA	Solid	5035	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC VOA (Continued)

Prep Batch: 74676 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-20	BH24-20 0	Total/NA	Solid	5035	
MB 880-74676/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74676/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74676/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6296-1 MS	BH24-09 0	Total/NA	Solid	5035	
890-6296-1 MSD	BH24-09 0	Total/NA	Solid	5035	

Prep Batch: 74689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-21	BH24-20 2	Total/NA	Solid	5035	
MB 880-74689/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74689/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74689/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-40191-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-40191-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 74750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-21	BH24-20 2	Total/NA	Solid	8021B	74689
MB 880-74652/5-A	Method Blank	Total/NA	Solid	8021B	74652
MB 880-74689/5-A	Method Blank	Total/NA	Solid	8021B	74689
LCS 880-74689/1-A	Lab Control Sample	Total/NA	Solid	8021B	74689
LCSD 880-74689/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74689
880-40191-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	74689
880-40191-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	74689

Analysis Batch: 74919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	Total BTEX	
890-6296-2	BH24-09 2	Total/NA	Solid	Total BTEX	
890-6296-3	BH24-11 0	Total/NA	Solid	Total BTEX	
890-6296-4	BH24-11 2	Total/NA	Solid	Total BTEX	
890-6296-5	BH24-12 0	Total/NA	Solid	Total BTEX	
890-6296-6	BH24-12 4	Total/NA	Solid	Total BTEX	
890-6296-7	BH24-12 8	Total/NA	Solid	Total BTEX	
890-6296-8	BH24-13 0	Total/NA	Solid	Total BTEX	
890-6296-9	BH24-13 2	Total/NA	Solid	Total BTEX	
890-6296-10	BH24-14 0	Total/NA	Solid	Total BTEX	
890-6296-11	BH24-14 2	Total/NA	Solid	Total BTEX	
890-6296-12	BH24-15 0	Total/NA	Solid	Total BTEX	
890-6296-13	BH24-15 2	Total/NA	Solid	Total BTEX	
890-6296-14	BH24-17 0	Total/NA	Solid	Total BTEX	
890-6296-15	BH24-17 2	Total/NA	Solid	Total BTEX	
890-6296-16	BH24-18 0	Total/NA	Solid	Total BTEX	
890-6296-17	BH24-18 2	Total/NA	Solid	Total BTEX	
890-6296-18	BH24-19 0	Total/NA	Solid	Total BTEX	
890-6296-19	BH24-19 2	Total/NA	Solid	Total BTEX	
890-6296-20	BH24-20 0	Total/NA	Solid	Total BTEX	
890-6296-21	BH24-20 2	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA

Analysis Batch: 74778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015B NM	74822
890-6296-2	BH24-09 2	Total/NA	Solid	8015B NM	74822
890-6296-3	BH24-11 0	Total/NA	Solid	8015B NM	74822
890-6296-4	BH24-11 2	Total/NA	Solid	8015B NM	74822
890-6296-5	BH24-12 0	Total/NA	Solid	8015B NM	74822
890-6296-6	BH24-12 4	Total/NA	Solid	8015B NM	74822
890-6296-7	BH24-12 8	Total/NA	Solid	8015B NM	74822
890-6296-8	BH24-13 0	Total/NA	Solid	8015B NM	74822
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015B NM	74822
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74822
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74822
890-6289-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	74822
890-6289-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	74822

Prep Batch: 74822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015NM Prep	
890-6296-2	BH24-09 2	Total/NA	Solid	8015NM Prep	
890-6296-3	BH24-11 0	Total/NA	Solid	8015NM Prep	
890-6296-4	BH24-11 2	Total/NA	Solid	8015NM Prep	
890-6296-5	BH24-12 0	Total/NA	Solid	8015NM Prep	
890-6296-6	BH24-12 4	Total/NA	Solid	8015NM Prep	
890-6296-7	BH24-12 8	Total/NA	Solid	8015NM Prep	
890-6296-8	BH24-13 0	Total/NA	Solid	8015NM Prep	
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6289-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6289-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 74834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-11	BH24-14 2	Total/NA	Solid	8015NM Prep	
890-6296-12	BH24-15 0	Total/NA	Solid	8015NM Prep	
890-6296-13	BH24-15 2	Total/NA	Solid	8015NM Prep	
890-6296-14	BH24-17 0	Total/NA	Solid	8015NM Prep	
890-6296-15	BH24-17 2	Total/NA	Solid	8015NM Prep	
890-6296-16	BH24-18 0	Total/NA	Solid	8015NM Prep	
890-6296-17	BH24-18 2	Total/NA	Solid	8015NM Prep	
890-6296-18	BH24-19 0	Total/NA	Solid	8015NM Prep	
890-6296-19	BH24-19 2	Total/NA	Solid	8015NM Prep	
890-6296-20	BH24-20 0	Total/NA	Solid	8015NM Prep	
890-6296-21	BH24-20 2	Total/NA	Solid	8015NM Prep	
MB 880-74834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6296-11 MS	BH24-14 2	Total/NA	Solid	8015NM Prep	
890-6296-11 MSD	BH24-14 2	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA

Prep Batch: 74838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-9	BH24-13 2	Total/NA	Solid	8015NM Prep	
890-6296-10	BH24-14 0	Total/NA	Solid	8015NM Prep	
MB 880-74838/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74838/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6296-9 MS	BH24-13 2	Total/NA	Solid	8015NM Prep	
890-6296-9 MSD	BH24-13 2	Total/NA	Solid	8015NM Prep	

Analysis Batch: 74861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-9	BH24-13 2	Total/NA	Solid	8015B NM	74838
890-6296-10	BH24-14 0	Total/NA	Solid	8015B NM	74838
MB 880-74838/1-A	Method Blank	Total/NA	Solid	8015B NM	74838
LCS 880-74838/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74838
LCSD 880-74838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74838
890-6296-9 MS	BH24-13 2	Total/NA	Solid	8015B NM	74838
890-6296-9 MSD	BH24-13 2	Total/NA	Solid	8015B NM	74838

Analysis Batch: 74863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-11	BH24-14 2	Total/NA	Solid	8015B NM	74834
890-6296-12	BH24-15 0	Total/NA	Solid	8015B NM	74834
890-6296-13	BH24-15 2	Total/NA	Solid	8015B NM	74834
890-6296-14	BH24-17 0	Total/NA	Solid	8015B NM	74834
890-6296-15	BH24-17 2	Total/NA	Solid	8015B NM	74834
890-6296-16	BH24-18 0	Total/NA	Solid	8015B NM	74834
890-6296-17	BH24-18 2	Total/NA	Solid	8015B NM	74834
890-6296-18	BH24-19 0	Total/NA	Solid	8015B NM	74834
890-6296-19	BH24-19 2	Total/NA	Solid	8015B NM	74834
890-6296-20	BH24-20 0	Total/NA	Solid	8015B NM	74834
890-6296-21	BH24-20 2	Total/NA	Solid	8015B NM	74834
MB 880-74834/1-A	Method Blank	Total/NA	Solid	8015B NM	74834
LCS 880-74834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74834
LCSD 880-74834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74834
890-6296-11 MS	BH24-14 2	Total/NA	Solid	8015B NM	74834
890-6296-11 MSD	BH24-14 2	Total/NA	Solid	8015B NM	74834

Analysis Batch: 74892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015 NM	
890-6296-2	BH24-09 2	Total/NA	Solid	8015 NM	
890-6296-3	BH24-11 0	Total/NA	Solid	8015 NM	
890-6296-4	BH24-11 2	Total/NA	Solid	8015 NM	
890-6296-5	BH24-12 0	Total/NA	Solid	8015 NM	
890-6296-6	BH24-12 4	Total/NA	Solid	8015 NM	
890-6296-7	BH24-12 8	Total/NA	Solid	8015 NM	
890-6296-8	BH24-13 0	Total/NA	Solid	8015 NM	
890-6296-9	BH24-13 2	Total/NA	Solid	8015 NM	
890-6296-10	BH24-14 0	Total/NA	Solid	8015 NM	
890-6296-11	BH24-14 2	Total/NA	Solid	8015 NM	
890-6296-12	BH24-15 0	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 74892 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-13	BH24-15 2	Total/NA	Solid	8015 NM	
890-6296-14	BH24-17 0	Total/NA	Solid	8015 NM	
890-6296-15	BH24-17 2	Total/NA	Solid	8015 NM	
890-6296-16	BH24-18 0	Total/NA	Solid	8015 NM	
890-6296-17	BH24-18 2	Total/NA	Solid	8015 NM	
890-6296-18	BH24-19 0	Total/NA	Solid	8015 NM	
890-6296-19	BH24-19 2	Total/NA	Solid	8015 NM	
890-6296-20	BH24-20 0	Total/NA	Solid	8015 NM	
890-6296-21	BH24-20 2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 74627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Soluble	Solid	DI Leach	
890-6296-2	BH24-09 2	Soluble	Solid	DI Leach	
890-6296-3	BH24-11 0	Soluble	Solid	DI Leach	
890-6296-4	BH24-11 2	Soluble	Solid	DI Leach	
890-6296-5	BH24-12 0	Soluble	Solid	DI Leach	
890-6296-6	BH24-12 4	Soluble	Solid	DI Leach	
890-6296-7	BH24-12 8	Soluble	Solid	DI Leach	
890-6296-8	BH24-13 0	Soluble	Solid	DI Leach	
890-6296-9	BH24-13 2	Soluble	Solid	DI Leach	
890-6296-10	BH24-14 0	Soluble	Solid	DI Leach	
890-6296-11	BH24-14 2	Soluble	Solid	DI Leach	
890-6296-12	BH24-15 0	Soluble	Solid	DI Leach	
890-6296-13	BH24-15 2	Soluble	Solid	DI Leach	
890-6296-14	BH24-17 0	Soluble	Solid	DI Leach	
MB 880-74627/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-74627/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-74627/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6296-5 MS	BH24-12 0	Soluble	Solid	DI Leach	
890-6296-5 MSD	BH24-12 0	Soluble	Solid	DI Leach	

Leach Batch: 74628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-15	BH24-17 2	Soluble	Solid	DI Leach	
890-6296-16	BH24-18 0	Soluble	Solid	DI Leach	
890-6296-17	BH24-18 2	Soluble	Solid	DI Leach	
890-6296-18	BH24-19 0	Soluble	Solid	DI Leach	
890-6296-19	BH24-19 2	Soluble	Solid	DI Leach	
890-6296-20	BH24-20 0	Soluble	Solid	DI Leach	
890-6296-21	BH24-20 2	Soluble	Solid	DI Leach	
MB 880-74628/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-74628/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-74628/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6296-15 MS	BH24-17 2	Soluble	Solid	DI Leach	
890-6296-15 MSD	BH24-17 2	Soluble	Solid	DI Leach	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

HPLC/IC

Analysis Batch: 74903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Soluble	Solid	300.0	74627
890-6296-2	BH24-09 2	Soluble	Solid	300.0	74627
890-6296-3	BH24-11 0	Soluble	Solid	300.0	74627
890-6296-4	BH24-11 2	Soluble	Solid	300.0	74627
890-6296-5	BH24-12 0	Soluble	Solid	300.0	74627
890-6296-6	BH24-12 4	Soluble	Solid	300.0	74627
890-6296-7	BH24-12 8	Soluble	Solid	300.0	74627
890-6296-8	BH24-13 0	Soluble	Solid	300.0	74627
890-6296-9	BH24-13 2	Soluble	Solid	300.0	74627
890-6296-10	BH24-14 0	Soluble	Solid	300.0	74627
890-6296-11	BH24-14 2	Soluble	Solid	300.0	74627
890-6296-12	BH24-15 0	Soluble	Solid	300.0	74627
890-6296-13	BH24-15 2	Soluble	Solid	300.0	74627
890-6296-14	BH24-17 0	Soluble	Solid	300.0	74627
MB 880-74627/1-A	Method Blank	Soluble	Solid	300.0	74627
LCS 880-74627/2-A	Lab Control Sample	Soluble	Solid	300.0	74627
LCSD 880-74627/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	74627
890-6296-5 MS	BH24-12 0	Soluble	Solid	300.0	74627
890-6296-5 MSD	BH24-12 0	Soluble	Solid	300.0	74627

Analysis Batch: 74929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-15	BH24-17 2	Soluble	Solid	300.0	74628
890-6296-16	BH24-18 0	Soluble	Solid	300.0	74628
890-6296-17	BH24-18 2	Soluble	Solid	300.0	74628
890-6296-18	BH24-19 0	Soluble	Solid	300.0	74628
890-6296-19	BH24-19 2	Soluble	Solid	300.0	74628
890-6296-20	BH24-20 0	Soluble	Solid	300.0	74628
890-6296-21	BH24-20 2	Soluble	Solid	300.0	74628
MB 880-74628/1-A	Method Blank	Soluble	Solid	300.0	74628
LCS 880-74628/2-A	Lab Control Sample	Soluble	Solid	300.0	74628
LCSD 880-74628/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	74628
890-6296-15 MS	BH24-17 2	Soluble	Solid	300.0	74628
890-6296-15 MSD	BH24-17 2	Soluble	Solid	300.0	74628

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 0

Date Collected: 02/27/24 11:40
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-1

Matrix: Solid

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 12:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 12:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 03:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 03:47	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:04	CH	EET MID

Client Sample ID: BH24-09 2

Date Collected: 02/27/24 12:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-2

Matrix: Solid

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 12:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 04:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:08	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:11	CH	EET MID

Client Sample ID: BH24-11 0

Date Collected: 02/28/24 13:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-3

Matrix: Solid

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 04:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:31	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:18	CH	EET MID

Client Sample ID: BH24-11 2

Date Collected: 02/28/24 13:10
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:34	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-11 2

Lab Sample ID: 890-6296-4
Matrix: Solid
Date Collected: 02/28/24 13:10
Date Received: 03/01/24 09:16

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			74892	03/06/24 04:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:54	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:25	CH	EET MID

Client Sample ID: BH24-12 0

Lab Sample ID: 890-6296-5
Matrix: Solid
Date Collected: 02/27/24 13:30
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:15	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		10			74903	03/07/24 23:32	CH	EET MID

Client Sample ID: BH24-12 4

Lab Sample ID: 890-6296-6
Matrix: Solid
Date Collected: 02/28/24 13:30
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:36	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		5			74903	03/07/24 23:54	CH	EET MID

Client Sample ID: BH24-12 8

Lab Sample ID: 890-6296-7
Matrix: Solid
Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:57	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 8

Lab Sample ID: 890-6296-7
Matrix: Solid
Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		5			74903	03/08/24 00:01	CH	EET MID

Client Sample ID: BH24-13 0

Lab Sample ID: 890-6296-8
Matrix: Solid
Date Collected: 02/28/24 09:45
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 06:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 06:18	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:22	CH	EET MID

Client Sample ID: BH24-13 2

Lab Sample ID: 890-6296-9
Matrix: Solid
Date Collected: 02/28/24 09:55
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 15:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 15:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74838	03/05/24 17:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74861	03/06/24 10:45	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:30	CH	EET MID

Client Sample ID: BH24-14 0

Lab Sample ID: 890-6296-10
Matrix: Solid
Date Collected: 02/28/24 10:00
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 15:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 15:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 11:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74838	03/05/24 17:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74861	03/06/24 11:51	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:37	CH	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 2

Lab Sample ID: 890-6296-11
Matrix: Solid
Date Collected: 02/28/24 10:05
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 17:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 17:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 10:45	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:44	CH	EET MID

Client Sample ID: BH24-15 0

Lab Sample ID: 890-6296-12
Matrix: Solid
Date Collected: 02/28/24 10:30
Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 17:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 17:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 11:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 11:51	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		10			74903	03/08/24 00:51	CH	EET MID

Client Sample ID: BH24-15 2

Lab Sample ID: 890-6296-13
Matrix: Solid
Date Collected: 02/28/24 10:40
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 12:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:58	CH	EET MID

Client Sample ID: BH24-17 0

Lab Sample ID: 890-6296-14
Matrix: Solid
Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:30	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 0

Lab Sample ID: 890-6296-14
Matrix: Solid
Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

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			74892	03/06/24 12:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:34	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		20			74903	03/08/24 01:05	CH	EET MID

Client Sample ID: BH24-17 2

Lab Sample ID: 890-6296-15
Matrix: Solid
Date Collected: 02/28/24 11:00
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:56	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:02	CH	EET MID

Client Sample ID: BH24-18 0

Lab Sample ID: 890-6296-16
Matrix: Solid
Date Collected: 02/28/24 11:30
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 13:17	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 13:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:24	CH	EET MID

Client Sample ID: BH24-18 2

Lab Sample ID: 890-6296-17
Matrix: Solid
Date Collected: 02/28/24 11:45
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 13:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 13:39	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-18 2

Lab Sample ID: 890-6296-17

Date Collected: 02/28/24 11:45
Matrix: Solid
Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:31	CH	EET MID

Client Sample ID: BH24-19 0

Lab Sample ID: 890-6296-18

Date Collected: 02/28/24 12:00
Matrix: Solid
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:00	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 02:38	CH	EET MID

Client Sample ID: BH24-19 2

Lab Sample ID: 890-6296-19

Date Collected: 02/29/24 12:15
Matrix: Solid
Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 20:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 20:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 02:45	CH	EET MID

Client Sample ID: BH24-20 0

Lab Sample ID: 890-6296-20

Date Collected: 02/29/24 12:20
Matrix: Solid
Date Received: 03/01/24 09:16

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	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 20:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 20:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		50			74929	03/08/24 03:07	CH	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-20 2

Date Collected: 02/29/24 12:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-21

Matrix: Solid

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	74689	03/05/24 13:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74750	03/06/24 03:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/06/24 03:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 15:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 15:27	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 03:14	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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	T104704400-23-26	06-30-24

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: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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:

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

Sample Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6296-1	BH24-09 0	Solid	02/27/24 11:40	03/01/24 09:16
890-6296-2	BH24-09 2	Solid	02/27/24 12:00	03/01/24 09:16
890-6296-3	BH24-11 0	Solid	02/28/24 13:00	03/01/24 09:16
890-6296-4	BH24-11 2	Solid	02/28/24 13:10	03/01/24 09:16
890-6296-5	BH24-12 0	Solid	02/27/24 13:30	03/01/24 09:16
890-6296-6	BH24-12 4	Solid	02/28/24 13:30	03/01/24 09:16
890-6296-7	BH24-12 8	Solid	02/28/24 15:20	03/01/24 09:16
890-6296-8	BH24-13 0	Solid	02/28/24 09:45	03/01/24 09:16
890-6296-9	BH24-13 2	Solid	02/28/24 09:55	03/01/24 09:16
890-6296-10	BH24-14 0	Solid	02/28/24 10:00	03/01/24 09:16
890-6296-11	BH24-14 2	Solid	02/28/24 10:05	03/01/24 09:16
890-6296-12	BH24-15 0	Solid	02/28/24 10:30	03/01/24 09:16
890-6296-13	BH24-15 2	Solid	02/28/24 10:40	03/01/24 09:16
890-6296-14	BH24-17 0	Solid	02/28/24 10:55	03/01/24 09:16
890-6296-15	BH24-17 2	Solid	02/28/24 11:00	03/01/24 09:16
890-6296-16	BH24-18 0	Solid	02/28/24 11:30	03/01/24 09:16
890-6296-17	BH24-18 2	Solid	02/28/24 11:45	03/01/24 09:16
890-6296-18	BH24-19 0	Solid	02/28/24 12:00	03/01/24 09:16
890-6296-19	BH24-19 2	Solid	02/29/24 12:15	03/01/24 09:16
890-6296-20	BH24-20 0	Solid	02/29/24 12:20	03/01/24 09:16
890-6296-21	BH24-20 2	Solid	02/29/24 12:30	03/01/24 09:16

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

CC: Scarttar@vertex.ca for Final Report

Work Order No: Cost Center #: 1055621001, Incident #: NAPP2335431615

www.xenco.com Page 1 of 3

Project Manager	Sally Carttar (SCatter@vertex.ca)	Bill to (if different)	XTO Energy, Inc
Company Name	Vertex Resource Services	Company Name	XTO Energy, Inc
Address	3101 Boyd Drive	Address	3104 E. Greene St
City, State ZIP	Carlsbad NM, 88220	City, State ZIP	Carlsbad NM, 88220
Phone	575 725 5001	Email	CC: Scarttar@vertex.ca and permian@vertex.ca for Final Report
Project Name	Mis Amigos Tank Battery	Turn Around	Routine Rush
Project Number	23E-05219	Due Date	
Project Location		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name	SM		
PO #			

Work Order Comments

Program: UST/PST PRP Brownfields RR Superfund

State of Project:

Reporting Level II Level III PST/UST TRRP Level IV

Deliverables EDD ADaPT Other

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Samples Received Intact	(Yes) No	Thermometer ID	TW0007	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-0.2	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	0.4	
Total Containers		Corrected Temperature	0.2	

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (ft)	Grab/ Comp	# of Cont	BTEX (8021)	TPH 8015D(GRO / DRO / MRO)	Chloride
BH24-09 0'	Soil	02.27.24	11:40	0	Grab		X	X	X
BH24-09 2'	Soil	02.27.24	12:00	2	Grab		X	X	X
BH24-11 0'	Soil	02.28.24	13:00	0	Grab		X	X	X
BH24-11 2'	Soil	02.28.24	13:10	2	Grab		X	X	X
~~BH24-12 0'~~	~~Soil~~	~~02.27.24~~	~~13:30~~	~~0~~	~~Grab~~		X	X	X
BH24-12 4'	Soil	02.28.24	13:30	4	Grab		X	X	X
BH24-12 8'	Soil	02.28.24	15:20	8	Grab		X	X	X
BH24-13 0'	Soil	02.28.24	9:45	0	Grab		X	X	X
BH24-13 2'	Soil	02.28.24	9:55	2	Grab		X	X	X
BH24-14 0'	Soil	02.28.24	10:00	0	Grab		X	X	X

890-6296 Chain of Custody

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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

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

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CC: Scarttar@vertex.ca for Final Report

Chain of Custody

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Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Work Order No: Cost Center #: 1055621001, Incident #: NAPP2335431615

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Project Manager	Sally Carttar (SCatter@vertex.ca)	Bill to (if different)	XTO Energy, Inc.
Company Name	Vertex Resource Services	Company Name	XTO Energy, Inc
Address	3101 Boyd Drive	Address	3104 E. Greene St
City State ZIP	Carlsbad NM, 88220	City State ZIP	Carlsbad NM, 88220
Phone	575 725 5001	Email	CC:Scarttar@vertex.ca and permian@vertex.ca for Final Report
Project Name	Mis Amigos Tank Battery	Turn Around	Routine / Rush
Project Number	23E-05219		Pres. Code
Project Location		Due Date:	
Sampler's Name	SM	TAT starts the day received by the lab if received by 4:30pm	
PO #			

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RR ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

SAMPLE RECEIPT	Temp Blank	Yes (circled) No	Wet Ice	Yes No
Samples Received Intact	Yes (circled) No	Thermometer ID	TWM007	
Cooler Custody Seals	Yes No N/A (circled)	Correction Factor	-0.2	
Sample Custody Seals	Yes No N/A (circled)	Temperature Reading	0.4	
Total Containers		Corrected Temperature	0.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (ft)	Grab/ Comp	# of Cont	BTEX (8021)	TPH 8015D(GRO / DRO / MRO)	Chloride	Sample Comments
BH24-14 2'	Soil	02.28.24	10:05	2	Grab		X	X	X	
BH24-15 0'	Soil	02.28.24	10:30	0	Grab		X	X	X	
BH24-15 2'	Soil	02.28.24	10:40	2	Grab		X	X	X	
BH24-17 0'	Soil	02.29.24	10:55	0	Grab		X	X	X	
BH24-17 2'	Soil	02.29.24	11:00	2	Grab		X	X	X	
BH24-18 0'	Soil	02.29.24	11:30	0	Grab		X	X	X	
BH24-18 2'	Soil	02.29.24	11:45	2	Grab		X	X	X	
BH24-19 0'	Soil	02.29.24	12:00	0	Grab		X	X	X	
BH24-19 2'	Soil	02.29.24	12:15	2	Grab		X	X	X	
BH24-20 0'	Soil	02.29.24	12:20	0	Grab		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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins 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 [signature]	[signature]	3/1 916	2		
3			4		
5			6		

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

CC: Scarttar@vertex.ca for Final Report

Work Order No: Cost Center #: 1055621001, Incident #: NAPP2335431615

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Project Manager	Sally Carttar (SCatter@vertex.ca)	Bill to (if different)	XTO Energy, Inc.
Company Name	Vertex Resource Services	Company Name	XTO Energy, Inc.
Address	3101 Boyd Drive	Address	3104 E. Greene St
City, State ZIP	Carlsbad NM, 88220	City, State ZIP	Carlsbad NM, 88220
Phone	575 725 5001	Email	CC: Scarttar@vertex.ca and permian@vertex.ca for Final Report
Project Name	Mis Amigos Tank Battery	Turn Around	Routine / Rush
Project Number	23E-05219	Due Date	
Project Location		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name	SM		
PO #			

Work Order Comments

Program: UST/PST PRP Brownfields RR Superfund
State of Project:
Reporting Level II Level III PST/UST TRRP Level IV
Deliverables EDD ADaPT Other

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Samples Received Intact	(Yes) No	Thermometer ID	IR#007	Parameters
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-0.2	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	0.4	
Total Containers		Corrected Temperature	0.2	

Preservative Codes

None: NO, DI Water: H_2O, Cool: Cool, MeOH: Me, HCL: HC, HNO_3: HN, H_2SO_4: H_2, NaOH: Na, H_3PO_4: HP, $NaHSO_4$: NABIS, $Na_2S_2O_3$: $NaSO_3$, Zn Acetate+NaOH: Zn, NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (ft)	Grab/ Comp	# of Cont	BTEX (8021)	TPH 8015D(GRO / DRO / MRO)	Chloride	Sample Comments
BH24-20 2'	Soil	02.29.24	12:30	2	Grab		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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins 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				4		
2				6		
5						

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6296-1
SDG Number: 23E-05219

Login Number: 6296
List Number: 1
Creator: Lopez, Abraham

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.	N/A	Refer to Job Narrative for details.
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: Vertex

Job Number: 890-6296-1
SDG Number: 23E-05219

Login Number: 6296
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/04/24 12:22 PM

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.	True	
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	

General Information

NMOCD District:	1 – Hobbs	Incident ID:	nAPP2335431615
Landowner:	State		
Client:	XTO Energy	Site Location:	Mis Amigos Tank Battery
Date:	March 13, 2024	Project #:	23E-05219-02
Client Contact:	Amy Ruth	Phone #:	432.661.0571
Vertex PM:	Sally Carttar	Phone #:	575.361.3561

Objective

The objective of the environmental remediation work plan is to identify exceedances found during the site assessment/characterization activity and propose an appropriate remediation technique to address these areas. Areas of environmental concern were identified and delineated between and around the separators west of the battery as shown on Figure 1 (Attachment 1). Closure criteria have been selected as per New Mexico Administrative Code 19.15.29. All applicable research as it pertains to closure criteria selection is presented in Attachment 2. The closure criteria for the site are presented below.

Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	**Constituent**	**Limit**
> 100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – total dissolved solids
TPH – Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
BTEX – Benzene, toluene, ethylbenzene, and xylenes

Site Assessment/Characterization

Site characterization was completed on February 29, 2024. A total of 20 sample points were established, from which samples were collected for field screening. As the depth to groundwater was greater than 110 ft, vertical delineation was not required. Samples below strictest closure criteria were submitted to the laboratory for analysis. In total, 44 samples were submitted to Eurofins Environment Testing, Carlsbad, New Mexico, for analysis. The sample locations are presented in Attachment 1. Laboratory analysis results have been compared to the above noted closure criteria and the results from the characterization activity are presented in Attachment 3. Exceedances are identified in the table as bold with a grey background.

Remedial Activities

General

Areas identified with contaminant concentrations above closure criteria will be remediated through excavation. Laboratory results from the site assessment/characterization have been referenced to estimate both the vertical and horizontal limits of the impacts and the volume of soil to be removed. Soil will be excavated to the extents of the known contamination or in 2 foot increments, whichever is less. Field screening will be utilized to confirm removal of contaminated soil below the applicable closure criteria. Contaminated soils will be stored on a 30 mil liner prior to disposal at an approved facility. Once excavation is complete, confirmatory samples will be

collected and laboratory analysis completed to confirm closure criteria guidelines are met. Excavations will be backfilled with clean soil sourced locally.

Two sample points were established in the area between the separators. Surface samples exceeded criteria at both points, so the area will be scraped to 0.5 ft below ground surface (bgs) to remove staining and surface contamination. Vertex Resource Services Inc. will request a deferral for any contamination at BH24-12 below 0.5 ft bgs due to proximity to production equipment. This area will be fully remediated upon abandonment of the Mis Amigos Tank Battery. Eighteen sample points were established on the pad surrounding the separators to define the horizontal extents of the release impacts. Soil will be excavated at a planned depth of 1 foot around sample points BH24-15, BH24-16, BH24-17, and BH24-20. A hydrovac truck will daylight all buried lines near the release area, per XTO Energy policy. The excavation on the open pad will be completed using heavy equipment, and the 0.5 ft depth excavation areas between the separators will be dug by hand. Field screening will be utilized to ensure that the walls and bases of all excavation areas meet New Mexico Oil Conservation Division (NMOCD) criteria for releases >100 ft depth to groundwater. Confirmatory samples will be collected as per NMOCD guidance and submitted for laboratory analysis of all applicable parameters. The estimated volume to be excavated is 190 cubic yards, and the remediation is expected to be completed within 30 days of the approval of this workplan.

Sample Point	Excavation Depth (ft.)	Remediation Method
BH24-11	0.5	Handcrew
BH24-12	0.5	Handcrew
BH24-15	1	Backhoe
BH24-16	1	Backhoe
BH24-17	1	Backhoe
BH24-20	1	Backhoe

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.3561 or scarttar@vertex.ca.

Sally Carttar

Sally Carttar BA
PROJECT MANAGER, REPORT REVIEW

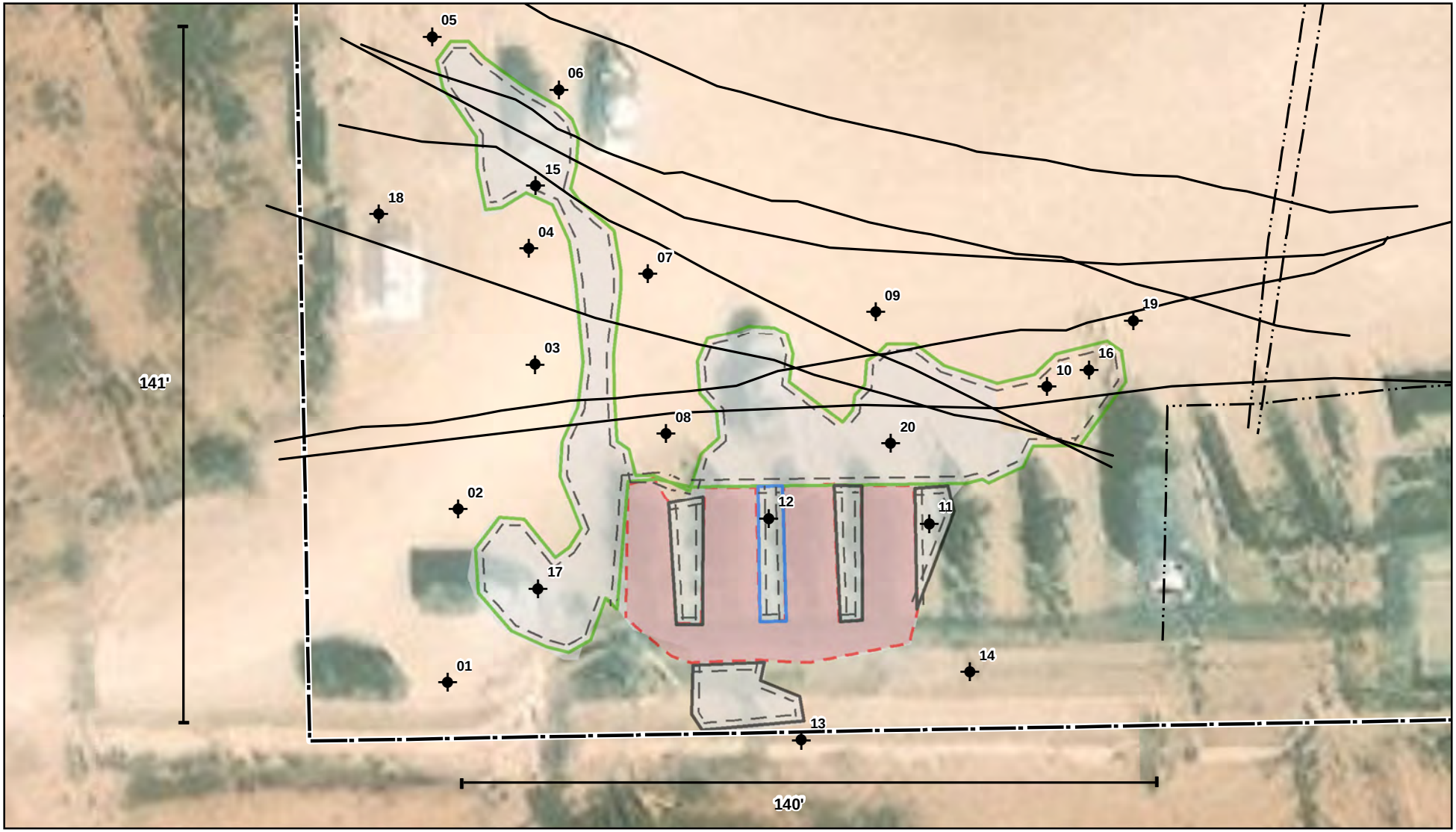
March 18, 2024

Date

Attachments

Attachment 1. Characterization Sampling Site Schematic
Attachment 2. Closure Criteria Research
Attachment 3. Initial Characterization Sample Field Screen and Laboratory Results Table and Laboratory Data Reports

ATTACHMENT 1



Borehole (Prefixed by "BH24-")
Buried Electrical Line
Buried Pipeline
Approximate Lease Boundary
Deferral Area (~ 1,540 sq. ft.)
Proposed Excavation to 0.5 ft bgs (~ 650 sq. ft.)
Proposed Excavation to 0.5 ft and 4 ft Deferral Area (~ 143 sq. ft.)
Proposed Excavation to 1 ft bgs (~ 3,677 sq. ft.)
Visible stain (~ 5,719 sq. ft.)

VERTEX

0 15 30 ft

Map Center:
Lat/Long: 32.254573, -103.609582

NAD 1983 UTM Zone 13N
Date: Mar 18/24

N

Characterization Sampling Site Schematic
Mis Amigos

FIGURE:
1

XTO ENERGY

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2022. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2023. Site features from GPS by Vertex, 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects_US PROJECTS\XTO Energy\23E-05219\Figure 1 Characterization Sampling Site Schematic (23E-05219)ID17988.mxd

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

QUESTIONS

Action 324387

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2335431615**
Incident Name	**NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MIS AMIGOS TANK BATTERY
Date Release Discovered	12/18/2023
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Other (Specify) | Produced Water | Released: 7 BBL | Recovered: 6 BBL | Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/20/2023

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
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	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	15244
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	60.7
GRO+DRO (EPA SW-846 Method 8015M)	60.7
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	03/18/2024
On what date will (or did) the final sampling or liner inspection occur	06/18/2024
On what date will (or was) the remediation complete(d)	06/18/2024
What is the estimated surface area (in square feet) that will be reclaimed	5233.8
What is the estimated volume (in cubic yards) that will be reclaimed	190
What is the estimated surface area (in square feet) that will be remediated	5233.8
What is the estimated volume (in cubic yards) that will be remediated	190
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 03/18/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

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	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**325805**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**04/04/2024**
What was the (estimated) number of samples that were to be gathered	**25**
What was the sampling surface area in square feet	**5000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 324387

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	Action Number: 324387
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Confirmation samples should be collected every 200 ft2. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.	4/16/2024