

Incident ID	nAPP2120130933
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>40</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

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

Printed Name: Jacqui Harris Title: Environmental Coordinator

Signature:  Date: 9.27.21

email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2120130933
District RP	
Facility ID	
Application ID	

Remediation Plan

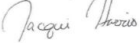
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jacqui Harris Title: Environmental Coordinator
Signature:  Date: 9.27.21
email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____


Site Assessment Report & Proposed Remediation Workplan

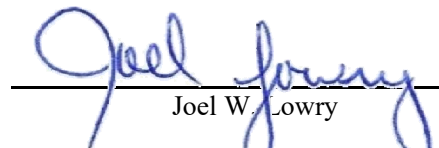
COG Operating, LLC Mamba Federal Com 702H

Eddy County, New Mexico
Unit Letter "B", Section 34, Township 25 South, Range 28 East
Latitude 32.090719 North, Longitude 104.071325 West
NMOCD Reference No. nAPP2120130933

Prepared By:

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


Ben J. Arguijo


Joel W. Lowry



Midland • San Antonio • Lubbock • Lovington • Lafayette

TABLE OF CONTENTS

	<i>Section</i>
PROJECT INFORMATION.....	1.0
SITE CHARACTERIZATION.....	2.0
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	3.0
INITIAL SITE ASSESSMENT.....	4.0
PROPOSED REMEDIATION PLAN.....	5.0
SAMPLING PLAN.....	6.0
TIMELINE & ESTIMATED VOLUME OF SOIL TO BE REMEDIATED.....	7.0
RESTORATION, RECLAMATION & RE-VEGETATION PLAN.....	8.0
LIMITATIONS.....	9.0
DISTRIBUTION.....	10.0

FIGURES

- Figure 1 - Topographic Map
- Figure 2 - Aerial Proximity Map
- Figure 3 - Site & Sample Location Map

TABLES

- Table 1 - Concentrations of BTEX, TPH & Chloride in Soil

APPENDICES

- Appendix A - Depth to Groundwater Information
- Appendix B - Field Data & Soil Profile Logs
- Appendix C - Laboratory Analytical Reports
- Appendix D - Photographic Log

2.0 SITE CHARACTERIZATION

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

What is the shallowest depth to groundwater beneath the area affected by the release?	40'	
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Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

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

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

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

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
40'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	-	-
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 INITIAL SITE ASSESSMENT

On July 9, 2021, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores (SP1 through SP5) were advanced within the inferred margins of the affected area in an effort to determine the vertical extent of impacted soil. In addition, hand-augered soil bores (NH1, EH1, SH1, and WH1) were advanced at the inferred edges of the primary pooling area of the release (characterized by sample location SP1) in an effort to determine the horizontal extent of impacted soil. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing olfactory/visual senses and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit.

Based on field observations and field test data, a total of 18 delineation soil samples (NH1 @ Surface, NH1 @ 1', EH1 @ Surface, EH1 @ 1', SH1 @ Surface, SH1 @ 1', WH1 @ Surface, WH1 @ 1', SP1 @ Surface, SP1 @ 4', SP2 @ Surface, SP2 @ 1', SP3 @ Surface, SP3 @ 1', SP4 @ Surface, SP4 @ 1', SP5 @ Surface, and SP5 @ 1') were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, the horizontal and vertical extent of impacted soil was adequately defined. Soil was not affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards beyond four (4) feet below ground surface (bgs) in the area characterized by sample point SP1. Soil was not affected above background concentrations in the runoff area characterized by sample points SP2 through SP5.

The locations of the hand-augered soil bores are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the Site are provided in Appendix D.

5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, COG Operating, LLC, proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards adjacent to the release point and in the primary pooling area (characterized by sample point SP1) to an estimated depth of four (4) feet bgs. Based on laboratory analytical results, no excavation will be conducted in the runoff area characterized by sample points SP2 through SP5.
- Advance the sidewalls and floor of the excavated area until laboratory analytical results indicate BTEX, TPH, and chloride concentrations are below the NMOCD Closure Criteria and NMOCD Reclamation Standards.
- Transport excavated soil to an NMOCD-permitted surface waste facility for disposal.
- Upon receiving laboratory analytical results from confirmation soil samples, backfill the excavated area with locally sourced, non-impacted, "like" material.
- Upon completion of remediation activities, prepare a *Remediation Summary & Soil Closure Request* detailing field activities and laboratory analytical results from confirmation soil samples.

6.0 SAMPLING PLAN

Upon completion of excavation activities, representative composite confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear feet. A minimum of one (1) representative composite confirmation soil sample will be collected from the base of the excavated area representing every 200 square feet. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

7.0 TIMELINE & ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within ninety (90) days of receiving necessary approval(s) of the *Site Assessment Report & Proposed Remediation Workplan*. Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, it is estimated that approximately 1,280 cubic yards of impacted soil is in need of removal.

8.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

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

9.0 LIMITATIONS

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

This report has been prepared for the benefit of COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

10.0 DISTRIBUTION

COG Operating, LLC
600 West Illinois Avenue
Midland, TX 79701

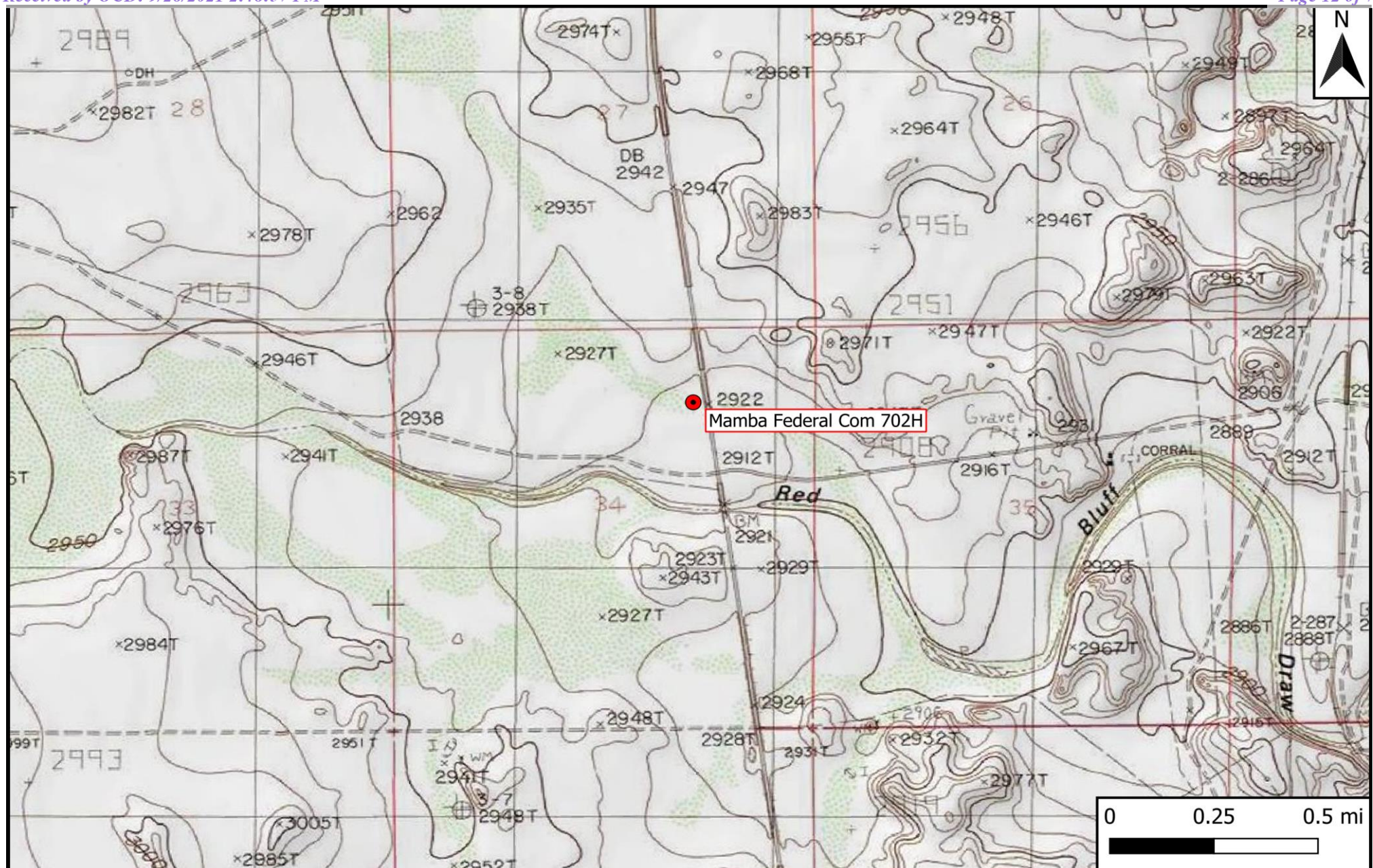
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

New Mexico State Land Office
2827 North Dal Paso Street
Suite 117
Hobbs, NM 88240

(Electronic Submission)

Figure 1

Topographic Map



Legend

● Site Location

Figure 1

Topographic Map
 COG Operating, LLC
 Mamba Federal Com 702H
 GPS: 32.090719, -104.071325
 Eddy County

eTECH
 Environmental & Safety Solutions, Inc.

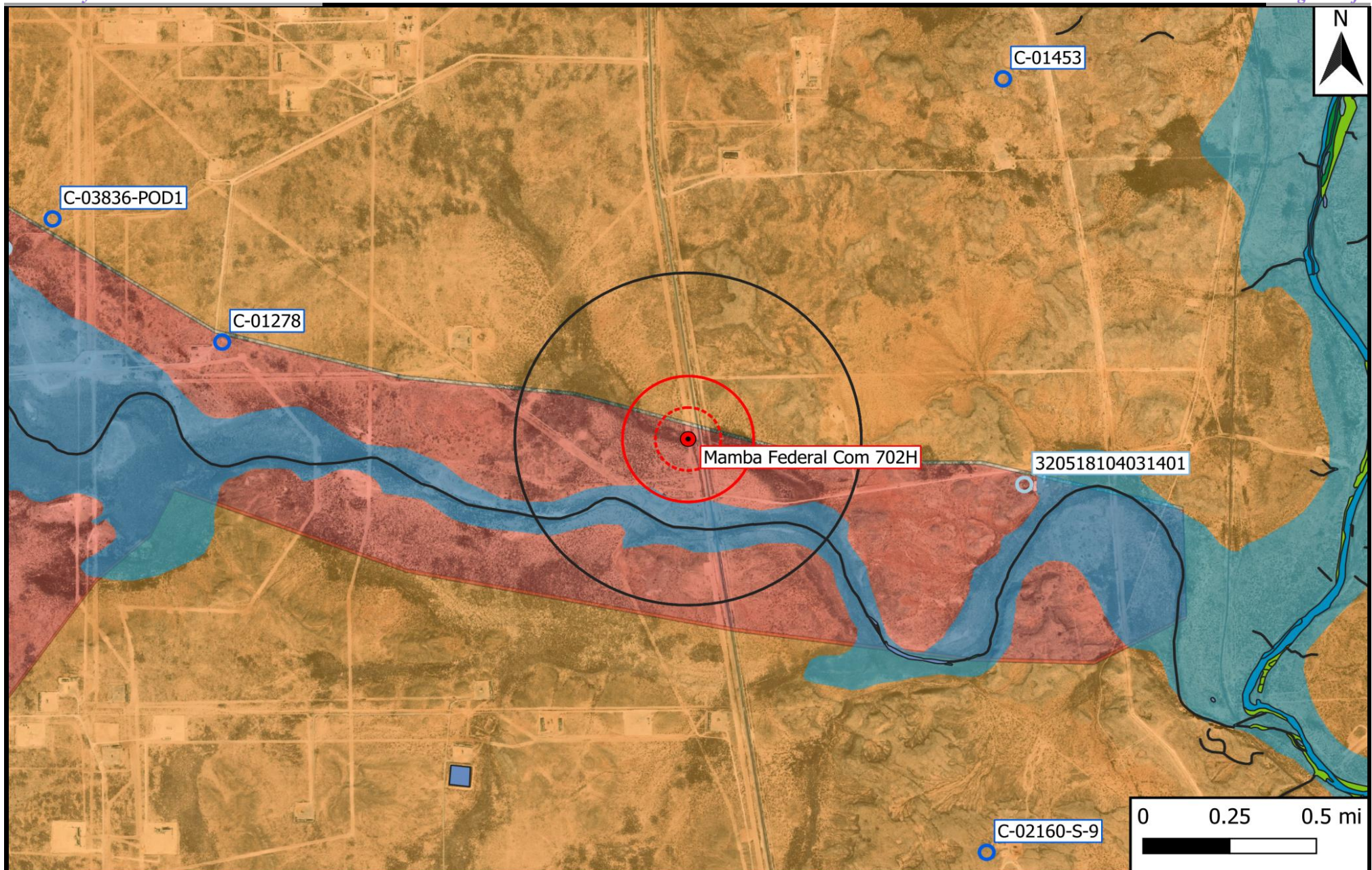
Drafted: bja

Checked: jwl

Date: 7/27/21

Figure 2

Aerial Proximity Map



Legend

- | | | |
|--------------------------------|----------------------------|-------------------|
| ● Site Location | 1% Annual Flood Chance | ⊘ 500-Ft Radius |
| ○ Well - NMOSE | Emergent/Forested Wetlands | ⊠ 1,000-Ft Radius |
| ○ Well - USGS | Freshwater Pond/Lake | ⊞ 0.5-Mi Radius |
| ○ Well - Investigative/Monitor | Medium/High Karst | |
| — Potash Mine Workings | Riverine | |

Figure 2
 Aerial Proximity Map
 COG Operating, LLC
 Mamba Federal Com 702H
 GPS: 32.090719, -104.071325
 Lea County

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: bja

Checked: jwl

Date: 7/27/21

Figure 3

Site & Sample Location Map



Legend

- Proposed Excavation (4' bgs)
- Auger Hole

Figure 3

Site & Sample Location Map
COG Operating, LLC
Mamba Federal Com 702H
GPS: 32.090719, -104.071325
Eddy County



Drafted: bja

Checked: jwl

Date: 8/11/21

Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1 Concentrations of BTEX, TPH & Chloride in Soil COG Operating, LLC Mamba Federal Com 702H NMOCD Ref. #: nAPP2120130933											
NMOCD Closure Criteria				10	50	-	-	-	-	100	600
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
NH1 @ Surface	7/9/2021	0	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
NH1 @ 1'	7/9/2021	1	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	<4.96
EH1 @ Surface	7/9/2021	0	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	11.8
EH1 @ 1'	7/9/2021	1	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	10.2
SH1 @ Surface	7/9/2021	0	In-Situ	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	12.0
SH1 @ 1'	7/9/2021	1	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	212
WH1 @ Surface	7/9/2021	0	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	201
WH1 @ 1'	7/9/2021	1	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	224
SP1 @ Surface	7/9/2021	0	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	2,250
SP1 @ 4'	7/9/2021	4	In-Situ	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	275
SP2 @ Surface	7/9/2021	0	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	176
SP2 @ 1'	7/9/2021	1	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	195
SP3 @ Surface	7/9/2021	0	In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	40.7
SP3 @ 1'	7/9/2021	1	In-Situ	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	11.1
SP4 @ Surface	7/9/2021	0	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	31.5
SP4 @ 1'	7/9/2021	1	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	121
SP5 @ Surface	7/9/2021	0	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	41.2
SP5 @ 1'	7/9/2021	1	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	44.6

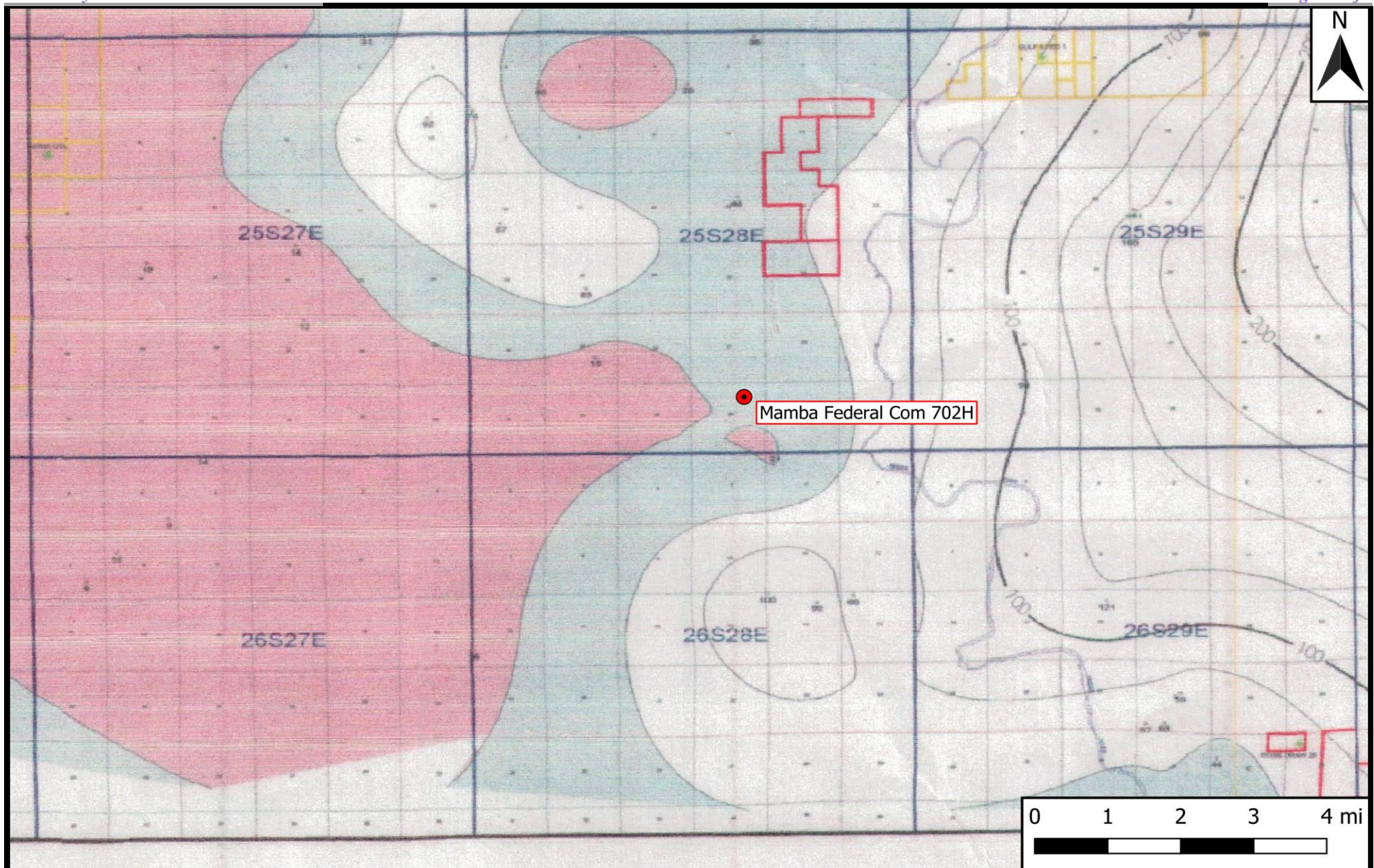
Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Appendix A

Depth to Groundwater Information



Legend

- Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
 COG Operating, LLC
 Mamba Federal Com 702H
 GPS: 32.090719, -104.071325
 Eddy County



Drafted: bja

Checked: jwl

Date: 7/27/21



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02477	CUB	ED		1	1	03	26S	28E		586687	3549347*	1791	150		
C 01278	C	ED		4	3	28	25S	28E		585470	3551338*	2213	205	90	115
C 01453	C	ED		1	2	26	25S	28E		589096	3552612*	2275	70	40	30

Average Depth to Water: **65 feet**

Minimum Depth: **40 feet**

Maximum Depth: **90 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 587633.52

Northing (Y): 3550868.6

Radius: 2414


*UTM location was derived from PLSS - see Help

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



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	02477	1	1	03	26S	28E	586687	3549347*	
Driller License:		Driller Company:							
Driller Name:		HEPLER BROS							
Drill Start Date:		Drill Finish Date:		12/31/1912		Plug Date:			
Log File Date:		PCW Rev Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield: 6 GPM			
Casing Size: 6.00		Depth Well:		150 feet		Depth Water:			

*UTM location was derived from PLSS - see Help

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

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	01278	4	3	28	25S	28E	585470	3551338*	

Driller License:	46	Driller Company:	ABBOTT BROTHERS COMPANY	
Driller Name:	ABBOTT, MUNELL			
Drill Start Date:	04/04/1965	Drill Finish Date:	04/08/1965	Plug Date:
Log File Date:	05/27/1965	PCW Rev Date:		Source:
Pump Type:		Pipe Discharge Size:		Estimated Yield:
Casing Size:		Depth Well:	205 feet	Depth Water: 90 feet

Water Bearing Stratifications:	Top	Bottom	Description
	105	110	Sandstone/Gravel/Conglomerate

*UTM location was derived from PLSS - see Help

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

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)		(NAD83 UTM in meters)					
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	01453	1	2	26	25S	28E	589096	3552612*	

Driller License:	30	Driller Company:	BARRON, EMMETT	
Driller Name:	BARRON, EMMETT			
Drill Start Date:	07/17/1971	Drill Finish Date:	07/20/1971	Plug Date:
Log File Date:	08/02/1971	PCW Rev Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:
Casing Size:	6.00	Depth Well:	70 feet	Depth Water: 40 feet

Water Bearing Stratifications:	Top	Bottom	Description
	50	70	Shale/Mudstone/Siltstone

*UTM location was derived from PLSS - see Help

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

POINT OF DIVERSION SUMMARY

**Legend**

- Site Location
- Well - USGS
- 1,000-Ft Radius
- 0.5-Mi Radius

Figure 5

USGS Well Proximity Map
COG Operating, LLC
Mamba Federal Com 702H
GPS: 32.090719, -104.071325
Eddy County



Drafted: bja

Checked: jwl

Date: 7/27/21



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

[Click for News Bulletins](#)

Groundwater levels for the Nation

* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320518104031401

Minimum number of levels = 1

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

USGS 320518104031401 25S.28E.35.2324

Eddy County, New Mexico

Latitude 32°05'19.0", Longitude 104°03'17.3" NAD83

Land-surface elevation 2,897 feet above NGVD29

The depth of the well is 180 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1982-12-08			D 72019	45.85			1	S	USGS	S	A
1987-10-14			D 72019	42.01			1	S	USGS	S	A
1998-01-23			D 72019	53.18			1	S	USGS	S	A
2003-02-10			D 72019	54.32			1	S	USGS	S	A
2013-01-10	18:00 UTC	m	72019	54.96			1	S	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2021-08-12 16:40:43 EDT

0.44 0.25 nadww01



Appendix B

Field Data & Soil Profile Logs



Soil Profile

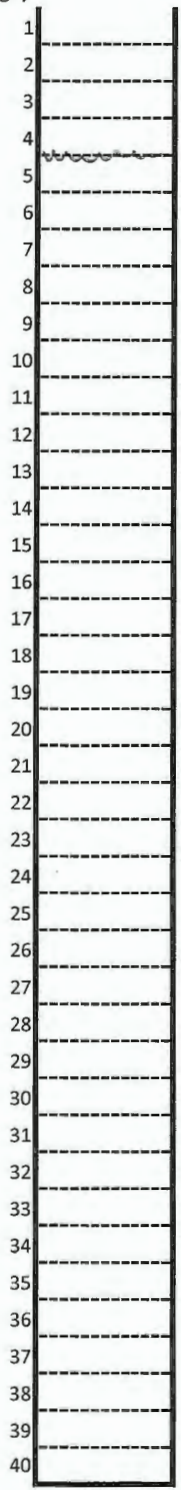
Date: 7/9/2021

Project: Momba Lay Flat Line Release

Project Number: 14434 Latitude: 32.090719 Longitude: -104.071325

Depth (ft. bgs)

Description



1	
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Appendix C

Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-918-1
Laboratory Sample Delivery Group: 14434
Client Project/Site: Momba Lay Flatline Release

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

Attn: PM List

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
7/15/2021 3:16:57 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Laboratory Job ID: 890-918-1
SDG: 14434

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	17
QC Sample Results	19
QC Association Summary	24
Lab Chronicle	28
Certification Summary	33
Method Summary	34
Sample Summary	35
Chain of Custody	36
Receipt Checklists	38

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Definitions/Glossary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Qualifiers

GC VOA

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

GC Semi VOA

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

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Job ID: 890-918-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-918-1

Comments

No additional comments.

Receipt

The samples were received on 7/9/2021 3:12 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 10.0° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP1 @ surface

Lab Sample ID: 890-918-1

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
Toluene	<0.00198	U F1	0.00198	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
Ethylbenzene	<0.00198	U F1	0.00198	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
m-Xylene & p-Xylene	<0.00397	U F1	0.00397	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
o-Xylene	<0.00198	U F1	0.00198	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
Xylenes, Total	<0.00397	U F1	0.00397	mg/Kg		07/13/21 15:04	07/14/21 06:05	1
Total BTEX	<0.00397	U F1	0.00397	mg/Kg		07/13/21 15:04	07/14/21 06:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	07/13/21 15:04	07/14/21 06:05	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/13/21 15:04	07/14/21 06:05	1

Method: 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		07/14/21 08:43	07/14/21 14:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 14:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 14:36	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 14:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	07/14/21 08:43	07/14/21 14:36	1
o-Terphenyl	128		70 - 130	07/14/21 08:43	07/14/21 14:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2250		24.9	mg/Kg			07/13/21 20:47	5

Client Sample ID: SP1 @ 4

Lab Sample ID: 890-918-2

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:26	1
Total BTEX	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	07/13/21 15:04	07/14/21 06:26	1
1,4-Difluorobenzene (Surr)	103		70 - 130	07/13/21 15:04	07/14/21 06:26	1

Method: 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		07/14/21 08:43	07/14/21 15:38	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP1 @ 4

Lab Sample ID: 890-918-2

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 15:38	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 15:38	1
Total TPH	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	07/14/21 08:43	07/14/21 15:38	1
o-Terphenyl	119		70 - 130	07/14/21 08:43	07/14/21 15:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	275		4.99	mg/Kg			07/14/21 12:31	1

Client Sample ID: SP2 @ surface

Lab Sample ID: 890-918-3

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:46	1
Total BTEX	<0.00403	U	0.00403	mg/Kg		07/13/21 15:04	07/14/21 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	07/13/21 15:04	07/14/21 06:46	1
1,4-Difluorobenzene (Surr)	111		70 - 130	07/13/21 15:04	07/14/21 06:46	1

Method: 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		07/14/21 08:43	07/14/21 15:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 15:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 15:59	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	07/14/21 08:43	07/14/21 15:59	1
o-Terphenyl	124		70 - 130	07/14/21 08:43	07/14/21 15:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	176		25.2	mg/Kg			07/13/21 21:09	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP2 @ 1

Lab Sample ID: 890-918-4

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 07:07	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 07:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/13/21 15:04	07/14/21 07:07	1
1,4-Difluorobenzene (Surr)	105		70 - 130	07/13/21 15:04	07/14/21 07:07	1

Method: 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		07/14/21 08:43	07/14/21 16:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 16:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 16:20	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	07/14/21 08:43	07/14/21 16:20	1
o-Terphenyl	110		70 - 130	07/14/21 08:43	07/14/21 16:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	195		25.1	mg/Kg			07/13/21 21:15	5

Client Sample ID: SP3 @ surface

Lab Sample ID: 890-918-5

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 07:28	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 07:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	07/13/21 15:04	07/14/21 07:28	1
1,4-Difluorobenzene (Surr)	104		70 - 130	07/13/21 15:04	07/14/21 07:28	1

Method: 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		07/14/21 08:43	07/14/21 16:40	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP3 @ surface

Lab Sample ID: 890-918-5

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 16:40	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 16:40	1
Total TPH	<49.8	U	49.8	mg/Kg		07/14/21 08:43	07/14/21 16:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			07/14/21 08:43	07/14/21 16:40	1
o-Terphenyl	121		70 - 130			07/14/21 08:43	07/14/21 16:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.7		5.01	mg/Kg			07/14/21 12:37	1

Client Sample ID: SP3 @ 1

Lab Sample ID: 890-918-6

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 07:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			07/13/21 15:04	07/14/21 07:48	1
1,4-Difluorobenzene (Surr)	108		70 - 130			07/13/21 15:04	07/14/21 07:48	1

Method: 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		07/14/21 08:43	07/14/21 17:01	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		07/14/21 08:43	07/14/21 17:01	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		07/14/21 08:43	07/14/21 17:01	1
Total TPH	<49.7	U	49.7	mg/Kg		07/14/21 08:43	07/14/21 17:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			07/14/21 08:43	07/14/21 17:01	1
o-Terphenyl	122		70 - 130			07/14/21 08:43	07/14/21 17:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		5.00	mg/Kg			07/14/21 12:43	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP4 @ surface

Lab Sample ID: 890-918-7

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 08:09	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 08:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	07/13/21 15:04	07/14/21 08:09	1
1,4-Difluorobenzene (Surr)	90		70 - 130	07/13/21 15:04	07/14/21 08:09	1

Method: 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		07/14/21 08:43	07/14/21 17:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 17:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 17:22	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	07/14/21 08:43	07/14/21 17:22	1
o-Terphenyl	133	S1+	70 - 130	07/14/21 08:43	07/14/21 17:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.5		5.03	mg/Kg			07/14/21 12:48	1

Client Sample ID: SP4 @ 1

Lab Sample ID: 890-918-8

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:29	1
Total BTEX	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	07/13/21 15:04	07/14/21 08:29	1
1,4-Difluorobenzene (Surr)	105		70 - 130	07/13/21 15:04	07/14/21 08:29	1

Method: 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		07/14/21 08:43	07/14/21 17:43	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP4 @ 1

Lab Sample ID: 890-918-8

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 17:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 17:43	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	07/14/21 08:43	07/14/21 17:43	1
o-Terphenyl	109		70 - 130	07/14/21 08:43	07/14/21 17:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		4.98	mg/Kg			07/14/21 12:54	1

Client Sample ID: SP5 @ surface

Lab Sample ID: 890-918-9

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:50	1
Total BTEX	<0.00401	U	0.00401	mg/Kg		07/13/21 15:04	07/14/21 08:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	07/13/21 15:04	07/14/21 08:50	1
1,4-Difluorobenzene (Surr)	109		70 - 130	07/13/21 15:04	07/14/21 08:50	1

Method: 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		07/14/21 08:43	07/14/21 18:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 18:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 18:03	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	07/14/21 08:43	07/14/21 18:03	1
o-Terphenyl	124		70 - 130	07/14/21 08:43	07/14/21 18:03	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.2		4.97	mg/Kg			07/15/21 11:38	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP5 @ 1

Lab Sample ID: 890-918-10

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 09:11	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		07/13/21 15:04	07/14/21 09:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	07/13/21 15:04	07/14/21 09:11	1
1,4-Difluorobenzene (Surr)	111		70 - 130	07/13/21 15:04	07/14/21 09:11	1

Method: 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		07/14/21 08:43	07/14/21 18:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 18:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 18:24	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	07/14/21 08:43	07/14/21 18:24	1
o-Terphenyl	121		70 - 130	07/14/21 08:43	07/14/21 18:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.6		5.05	mg/Kg			07/15/21 11:44	1

Client Sample ID: NH1 @ surface

Lab Sample ID: 890-918-11

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 10:34	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	07/13/21 15:04	07/14/21 10:34	1
1,4-Difluorobenzene (Surr)	93		70 - 130	07/13/21 15:04	07/14/21 10:34	1

Method: 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		07/14/21 08:43	07/14/21 19:06	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: NH1 @ surface

Lab Sample ID: 890-918-11

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:06	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			07/14/21 08:43	07/14/21 19:06	1
o-Terphenyl	124		70 - 130			07/14/21 08:43	07/14/21 19:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/14/21 20:32	1

Client Sample ID: NH1 @ 1

Lab Sample ID: 890-918-12

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 10:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			07/13/21 15:04	07/14/21 10:55	1
1,4-Difluorobenzene (Surr)	102		70 - 130			07/13/21 15:04	07/14/21 10:55	1

Method: 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		07/14/21 08:43	07/14/21 19:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:27	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 19:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			07/14/21 08:43	07/14/21 19:27	1
o-Terphenyl	125		70 - 130			07/14/21 08:43	07/14/21 19:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96	mg/Kg			07/14/21 20:37	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: EH1 @ surface

Lab Sample ID: 890-918-13

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:16	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/13/21 15:04	07/14/21 11:16	1
1,4-Difluorobenzene (Surr)	109		70 - 130	07/13/21 15:04	07/14/21 11:16	1

Method: 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		07/14/21 08:43	07/14/21 19:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 19:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 19:47	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	07/14/21 08:43	07/14/21 19:47	1
o-Terphenyl	127		70 - 130	07/14/21 08:43	07/14/21 19:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.8		4.99	mg/Kg			07/15/21 11:49	1

Client Sample ID: EH1 @ 1

Lab Sample ID: 890-918-14

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:36	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		07/13/21 15:04	07/14/21 11:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	07/13/21 15:04	07/14/21 11:36	1
1,4-Difluorobenzene (Surr)	110		70 - 130	07/13/21 15:04	07/14/21 11:36	1

Method: 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		07/14/21 08:43	07/14/21 20:08	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: EH1 @ 1

Lab Sample ID: 890-918-14

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:08	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	07/14/21 08:43	07/14/21 20:08	1
o-Terphenyl	118		70 - 130	07/14/21 08:43	07/14/21 20:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2		5.04	mg/Kg			07/15/21 11:55	1

Client Sample ID: SH1 @ Surface

Lab Sample ID: 890-918-15

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/13/21 15:04	07/14/21 11:57	1
Total BTEX	<0.00397	U	0.00397	mg/Kg		07/13/21 15:04	07/14/21 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	07/13/21 15:04	07/14/21 11:57	1
1,4-Difluorobenzene (Surr)	105		70 - 130	07/13/21 15:04	07/14/21 11:57	1

Method: 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		07/14/21 08:43	07/14/21 20:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:29	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 20:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	07/14/21 08:43	07/14/21 20:29	1
o-Terphenyl	115		70 - 130	07/14/21 08:43	07/14/21 20:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.0		5.05	mg/Kg			07/15/21 12:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SH1 @ 1

Lab Sample ID: 890-918-16

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 12:18	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		07/13/21 15:04	07/14/21 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	07/13/21 15:04	07/14/21 12:18	1
1,4-Difluorobenzene (Surr)	106		70 - 130	07/13/21 15:04	07/14/21 12:18	1

Method: 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		07/14/21 08:43	07/14/21 20:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 20:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 20:50	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	07/14/21 08:43	07/14/21 20:50	1
o-Terphenyl	104		70 - 130	07/14/21 08:43	07/14/21 20:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		4.98	mg/Kg			07/14/21 20:59	1

Client Sample ID: WHI @ surface

Lab Sample ID: 890-918-17

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 12:38	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		07/13/21 15:04	07/14/21 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	07/13/21 15:04	07/14/21 12:38	1
1,4-Difluorobenzene (Surr)	97		70 - 130	07/13/21 15:04	07/14/21 12:38	1

Method: 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		07/14/21 08:43	07/14/21 21:11	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: WHI @ surface

Lab Sample ID: 890-918-17

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 21:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 21:11	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 21:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			07/14/21 08:43	07/14/21 21:11	1
o-Terphenyl	105		70 - 130			07/14/21 08:43	07/14/21 21:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		25.3	mg/Kg			07/14/21 21:43	5

Client Sample ID: WHI @ 1

Lab Sample ID: 890-918-18

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 12:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			07/13/21 15:04	07/14/21 12:59	1
1,4-Difluorobenzene (Surr)	115		70 - 130			07/13/21 15:04	07/14/21 12:59	1

Method: 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		07/14/21 08:43	07/14/21 21:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 21:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 21:32	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/21 08:43	07/14/21 21:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			07/14/21 08:43	07/14/21 21:32	1
o-Terphenyl	108		70 - 130			07/14/21 08:43	07/14/21 21:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	224		25.0	mg/Kg			07/14/21 21:59	5

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
890-918-1	SP1 @ surface	129	84				
890-918-1 MS	SP1 @ surface	110	95				
890-918-1 MSD	SP1 @ surface	122	106				
890-918-2	SP1 @ 4	116	103				
890-918-3	SP2 @ surface	131 S1+	111				
890-918-4	SP2 @ 1	114	105				
890-918-5	SP3 @ surface	115	104				
890-918-6	SP3 @ 1	113	108				
890-918-7	SP4 @ surface	106	90				
890-918-8	SP4 @ 1	117	105				
890-918-9	SP5 @ surface	117	109				
890-918-10	SP5 @ 1	122	111				
890-918-11	NH1 @ surface	98	93				
890-918-12	NH1 @ 1	121	102				
890-918-13	EH1 @ surface	114	109				
890-918-14	EH1 @ 1	126	110				
890-918-15	SH1 @ Surface	125	105				
890-918-16	SH1 @ 1	120	106				
890-918-17	WHI @ surface	112	97				
890-918-18	WHI @ 1	116	115				
LCS 880-5111/1-A	Lab Control Sample	107	96				
LCSD 880-5111/2-A	Lab Control Sample Dup	98	85				
MB 880-5106/5-A	Method Blank	114	79				
MB 880-5111/5-A	Method Blank	124	89				
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	OTPH1				
		(70-130)	(70-130)				
890-918-1	SP1 @ surface	106	128				
890-918-1 MS	SP1 @ surface	96	102				
890-918-1 MSD	SP1 @ surface	91	96				
890-918-2	SP1 @ 4	102	119				
890-918-3	SP2 @ surface	105	124				
890-918-4	SP2 @ 1	97	110				
890-918-5	SP3 @ surface	103	121				
890-918-6	SP3 @ 1	106	122				
890-918-7	SP4 @ surface	111	133 S1+				
890-918-8	SP4 @ 1	96	109				
890-918-9	SP5 @ surface	104	124				
890-918-10	SP5 @ 1	100	121				
890-918-11	NH1 @ surface	104	124				
890-918-12	NH1 @ 1	105	125				
890-918-13	EH1 @ surface	105	127				

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Etech Environmental & Safety Solutions

Job ID: 890-918-1

Project/Site: Momba Lay Flatline Release

SDG: 14434

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)
890-918-14	EH1 @ 1	100	118
890-918-15	SH1 @ Surface	98	115
890-918-16	SH1 @ 1	93	104
890-918-17	WHI @ surface	93	105
890-918-18	WHI @ 1	94	108
LCS 880-5136/2-A	Lab Control Sample	111	121
LCSD 880-5136/3-A	Lab Control Sample Dup	107	118
MB 880-5136/1-A	Method Blank	109	130
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5106/5-A

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5106

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/13/21 14:47	07/13/21 18:49	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/13/21 14:47	07/13/21 18:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/13/21 14:47	07/13/21 18:49	1
1,4-Difluorobenzene (Surr)	79		70 - 130	07/13/21 14:47	07/13/21 18:49	1

Lab Sample ID: MB 880-5111/5-A

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5111

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 05:43	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/13/21 15:04	07/14/21 05:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	07/13/21 15:04	07/14/21 05:43	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/13/21 15:04	07/14/21 05:43	1

Lab Sample ID: LCS 880-5111/1-A

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1013		mg/Kg		101	70 - 130
Toluene	0.100	0.1012		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09894		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2096		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1008		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

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

Lab Sample ID: LCSD 880-5111/2-A

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5111

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08649		mg/Kg		86	70 - 130	16	35
Toluene	0.100	0.08834		mg/Kg		88	70 - 130	14	35
Ethylbenzene	0.100	0.08585		mg/Kg		86	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.1710		mg/Kg		85	70 - 130	20	35
o-Xylene	0.100	0.08476		mg/Kg		85	70 - 130	17	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-918-1 MS

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: SP1 @ surface

Prep Type: Total/NA

Prep Batch: 5111

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.101	0.06322	F1	mg/Kg		62	70 - 130		
Toluene	<0.00198	U F1	0.101	0.05621	F1	mg/Kg		55	70 - 130		
Ethylbenzene	<0.00198	U F1	0.101	0.05011	F1	mg/Kg		49	70 - 130		
m-Xylene & p-Xylene	<0.00397	U F1	0.202	0.1004	F1	mg/Kg		50	70 - 130		
o-Xylene	<0.00198	U F1	0.101	0.05297	F1	mg/Kg		51	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-918-1 MSD

Matrix: Solid

Analysis Batch: 5114

Client Sample ID: SP1 @ surface

Prep Type: Total/NA

Prep Batch: 5111

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0994	0.06883	F1	mg/Kg		69	70 - 130	8	35
Toluene	<0.00198	U F1	0.0994	0.06572	F1	mg/Kg		65	70 - 130	16	35
Ethylbenzene	<0.00198	U F1	0.0994	0.05811	F1	mg/Kg		57	70 - 130	15	35
m-Xylene & p-Xylene	<0.00397	U F1	0.199	0.1206	F1	mg/Kg		61	70 - 130	18	35
o-Xylene	<0.00198	U F1	0.0994	0.06041	F1	mg/Kg		60	70 - 130	13	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

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

Lab Sample ID: MB 880-5136/1-A

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5136

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		07/14/21 08:43	07/14/21 13:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 13:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 13:25	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/21 08:43	07/14/21 13:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	07/14/21 08:43	07/14/21 13:25	1
o-Terphenyl	130		70 - 130	07/14/21 08:43	07/14/21 13:25	1

Lab Sample ID: LCS 880-5136/2-A

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	830.3		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	996.1		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: LCSD 880-5136/3-A

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5136

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	759.6		mg/Kg		76	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	980.6		mg/Kg		98	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 890-918-1 MS

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: SP1 @ surface

Prep Type: Total/NA

Prep Batch: 5136

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	887.8		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1148		mg/Kg		113	70 - 130

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QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

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

Lab Sample ID: 890-918-1 MS

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: SP1 @ surface

Prep Type: Total/NA

Prep Batch: 5136

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-918-1 MSD

Matrix: Solid

Analysis Batch: 5176

Client Sample ID: SP1 @ surface

Prep Type: Total/NA

Prep Batch: 5136

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	<50.0	U	996	899.6		mg/Kg		90	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1077		mg/Kg		106	70 - 130	6	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5076/1-A

Matrix: Solid

Analysis Batch: 5130

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			07/13/21 18:52	1

Lab Sample ID: LCS 880-5076/2-A

Matrix: Solid

Analysis Batch: 5130

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	274.7		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-5076/3-A

Matrix: Solid

Analysis Batch: 5130

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	272.8		mg/Kg		109	90 - 110	1	20

Lab Sample ID: MB 880-5079/1-A

Matrix: Solid

Analysis Batch: 5203

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			07/14/21 17:36	1

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QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-5079/2-A

Matrix: Solid

Analysis Batch: 5203

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	261.3		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-5079/3-A

Matrix: Solid

Analysis Batch: 5203

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	261.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: MB 880-5080/1-A

Matrix: Solid

Analysis Batch: 5204

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			07/14/21 21:27	1

Lab Sample ID: LCS 880-5080/2-A

Matrix: Solid

Analysis Batch: 5204

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	258.9		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-5080/3-A

Matrix: Solid

Analysis Batch: 5204

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	259.2		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-918-17 MS

Matrix: Solid

Analysis Batch: 5204

Client Sample ID: WHI @ surface

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	201		1260	1559		mg/Kg		108	90 - 110

Lab Sample ID: 890-918-17 MSD

Matrix: Solid

Analysis Batch: 5204

Client Sample ID: WHI @ surface

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	201		1260	1568		mg/Kg		108	90 - 110	1	20

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QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

GC VOA

Prep Batch: 5106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5106/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 5111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Total/NA	Solid	5035	
890-918-2	SP1 @ 4	Total/NA	Solid	5035	
890-918-3	SP2 @ surface	Total/NA	Solid	5035	
890-918-4	SP2 @ 1	Total/NA	Solid	5035	
890-918-5	SP3 @ surface	Total/NA	Solid	5035	
890-918-6	SP3 @ 1	Total/NA	Solid	5035	
890-918-7	SP4 @ surface	Total/NA	Solid	5035	
890-918-8	SP4 @ 1	Total/NA	Solid	5035	
890-918-9	SP5 @ surface	Total/NA	Solid	5035	
890-918-10	SP5 @ 1	Total/NA	Solid	5035	
890-918-11	NH1 @ surface	Total/NA	Solid	5035	
890-918-12	NH1 @ 1	Total/NA	Solid	5035	
890-918-13	EH1 @ surface	Total/NA	Solid	5035	
890-918-14	EH1 @ 1	Total/NA	Solid	5035	
890-918-15	SH1 @ Surface	Total/NA	Solid	5035	
890-918-16	SH1 @ 1	Total/NA	Solid	5035	
890-918-17	WHI @ surface	Total/NA	Solid	5035	
890-918-18	WHI @ 1	Total/NA	Solid	5035	
MB 880-5111/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5111/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5111/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-918-1 MS	SP1 @ surface	Total/NA	Solid	5035	
890-918-1 MSD	SP1 @ surface	Total/NA	Solid	5035	

Analysis Batch: 5114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Total/NA	Solid	8021B	5111
890-918-2	SP1 @ 4	Total/NA	Solid	8021B	5111
890-918-3	SP2 @ surface	Total/NA	Solid	8021B	5111
890-918-4	SP2 @ 1	Total/NA	Solid	8021B	5111
890-918-5	SP3 @ surface	Total/NA	Solid	8021B	5111
890-918-6	SP3 @ 1	Total/NA	Solid	8021B	5111
890-918-7	SP4 @ surface	Total/NA	Solid	8021B	5111
890-918-8	SP4 @ 1	Total/NA	Solid	8021B	5111
890-918-9	SP5 @ surface	Total/NA	Solid	8021B	5111
890-918-10	SP5 @ 1	Total/NA	Solid	8021B	5111
890-918-11	NH1 @ surface	Total/NA	Solid	8021B	5111
890-918-12	NH1 @ 1	Total/NA	Solid	8021B	5111
890-918-13	EH1 @ surface	Total/NA	Solid	8021B	5111
890-918-14	EH1 @ 1	Total/NA	Solid	8021B	5111
890-918-15	SH1 @ Surface	Total/NA	Solid	8021B	5111
890-918-16	SH1 @ 1	Total/NA	Solid	8021B	5111
890-918-17	WHI @ surface	Total/NA	Solid	8021B	5111
890-918-18	WHI @ 1	Total/NA	Solid	8021B	5111
MB 880-5106/5-A	Method Blank	Total/NA	Solid	8021B	5106
MB 880-5111/5-A	Method Blank	Total/NA	Solid	8021B	5111
LCS 880-5111/1-A	Lab Control Sample	Total/NA	Solid	8021B	5111

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QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

GC VOA (Continued)

Analysis Batch: 5114 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-5111/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5111
890-918-1 MS	SP1 @ surface	Total/NA	Solid	8021B	5111
890-918-1 MSD	SP1 @ surface	Total/NA	Solid	8021B	5111

GC Semi VOA

Prep Batch: 5136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Total/NA	Solid	8015NM Prep	
890-918-2	SP1 @ 4	Total/NA	Solid	8015NM Prep	
890-918-3	SP2 @ surface	Total/NA	Solid	8015NM Prep	
890-918-4	SP2 @ 1	Total/NA	Solid	8015NM Prep	
890-918-5	SP3 @ surface	Total/NA	Solid	8015NM Prep	
890-918-6	SP3 @ 1	Total/NA	Solid	8015NM Prep	
890-918-7	SP4 @ surface	Total/NA	Solid	8015NM Prep	
890-918-8	SP4 @ 1	Total/NA	Solid	8015NM Prep	
890-918-9	SP5 @ surface	Total/NA	Solid	8015NM Prep	
890-918-10	SP5 @ 1	Total/NA	Solid	8015NM Prep	
890-918-11	NH1 @ surface	Total/NA	Solid	8015NM Prep	
890-918-12	NH1 @ 1	Total/NA	Solid	8015NM Prep	
890-918-13	EH1 @ surface	Total/NA	Solid	8015NM Prep	
890-918-14	EH1 @ 1	Total/NA	Solid	8015NM Prep	
890-918-15	SH1 @ Surface	Total/NA	Solid	8015NM Prep	
890-918-16	SH1 @ 1	Total/NA	Solid	8015NM Prep	
890-918-17	WHI @ surface	Total/NA	Solid	8015NM Prep	
890-918-18	WHI @ 1	Total/NA	Solid	8015NM Prep	
MB 880-5136/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5136/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5136/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-918-1 MS	SP1 @ surface	Total/NA	Solid	8015NM Prep	
890-918-1 MSD	SP1 @ surface	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Total/NA	Solid	8015B NM	5136
890-918-2	SP1 @ 4	Total/NA	Solid	8015B NM	5136
890-918-3	SP2 @ surface	Total/NA	Solid	8015B NM	5136
890-918-4	SP2 @ 1	Total/NA	Solid	8015B NM	5136
890-918-5	SP3 @ surface	Total/NA	Solid	8015B NM	5136
890-918-6	SP3 @ 1	Total/NA	Solid	8015B NM	5136
890-918-7	SP4 @ surface	Total/NA	Solid	8015B NM	5136
890-918-8	SP4 @ 1	Total/NA	Solid	8015B NM	5136
890-918-9	SP5 @ surface	Total/NA	Solid	8015B NM	5136
890-918-10	SP5 @ 1	Total/NA	Solid	8015B NM	5136
890-918-11	NH1 @ surface	Total/NA	Solid	8015B NM	5136
890-918-12	NH1 @ 1	Total/NA	Solid	8015B NM	5136
890-918-13	EH1 @ surface	Total/NA	Solid	8015B NM	5136
890-918-14	EH1 @ 1	Total/NA	Solid	8015B NM	5136
890-918-15	SH1 @ Surface	Total/NA	Solid	8015B NM	5136
890-918-16	SH1 @ 1	Total/NA	Solid	8015B NM	5136
890-918-17	WHI @ surface	Total/NA	Solid	8015B NM	5136

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QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

GC Semi VOA (Continued)

Analysis Batch: 5176 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-18	WHI @ 1	Total/NA	Solid	8015B NM	5136
MB 880-5136/1-A	Method Blank	Total/NA	Solid	8015B NM	5136
LCS 880-5136/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5136
LCSD 880-5136/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5136
890-918-1 MS	SP1 @ surface	Total/NA	Solid	8015B NM	5136
890-918-1 MSD	SP1 @ surface	Total/NA	Solid	8015B NM	5136

HPLC/IC

Leach Batch: 5076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Soluble	Solid	DI Leach	
890-918-2	SP1 @ 4	Soluble	Solid	DI Leach	
890-918-3	SP2 @ surface	Soluble	Solid	DI Leach	
890-918-4	SP2 @ 1	Soluble	Solid	DI Leach	
890-918-5	SP3 @ surface	Soluble	Solid	DI Leach	
890-918-6	SP3 @ 1	Soluble	Solid	DI Leach	
890-918-7	SP4 @ surface	Soluble	Solid	DI Leach	
890-918-8	SP4 @ 1	Soluble	Solid	DI Leach	
MB 880-5076/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5076/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5076/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 5079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-9	SP5 @ surface	Soluble	Solid	DI Leach	
890-918-10	SP5 @ 1	Soluble	Solid	DI Leach	
890-918-11	NH1 @ surface	Soluble	Solid	DI Leach	
890-918-12	NH1 @ 1	Soluble	Solid	DI Leach	
890-918-13	EH1 @ surface	Soluble	Solid	DI Leach	
890-918-14	EH1 @ 1	Soluble	Solid	DI Leach	
890-918-15	SH1 @ Surface	Soluble	Solid	DI Leach	
890-918-16	SH1 @ 1	Soluble	Solid	DI Leach	
MB 880-5079/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5079/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5079/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 5080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-17	WHI @ surface	Soluble	Solid	DI Leach	
890-918-18	WHI @ 1	Soluble	Solid	DI Leach	
MB 880-5080/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5080/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5080/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-918-17 MS	WHI @ surface	Soluble	Solid	DI Leach	
890-918-17 MSD	WHI @ surface	Soluble	Solid	DI Leach	

Analysis Batch: 5130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-1	SP1 @ surface	Soluble	Solid	300.0	5076
890-918-2	SP1 @ 4	Soluble	Solid	300.0	5076

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QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

HPLC/IC (Continued)

Analysis Batch: 5130 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-3	SP2 @ surface	Soluble	Solid	300.0	5076
890-918-4	SP2 @ 1	Soluble	Solid	300.0	5076
890-918-5	SP3 @ surface	Soluble	Solid	300.0	5076
890-918-6	SP3 @ 1	Soluble	Solid	300.0	5076
890-918-7	SP4 @ surface	Soluble	Solid	300.0	5076
890-918-8	SP4 @ 1	Soluble	Solid	300.0	5076
MB 880-5076/1-A	Method Blank	Soluble	Solid	300.0	5076
LCS 880-5076/2-A	Lab Control Sample	Soluble	Solid	300.0	5076
LCSD 880-5076/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5076

Analysis Batch: 5203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-9	SP5 @ surface	Soluble	Solid	300.0	5079
890-918-10	SP5 @ 1	Soluble	Solid	300.0	5079
890-918-11	NH1 @ surface	Soluble	Solid	300.0	5079
890-918-12	NH1 @ 1	Soluble	Solid	300.0	5079
890-918-13	EH1 @ surface	Soluble	Solid	300.0	5079
890-918-14	EH1 @ 1	Soluble	Solid	300.0	5079
890-918-15	SH1 @ Surface	Soluble	Solid	300.0	5079
890-918-16	SH1 @ 1	Soluble	Solid	300.0	5079
MB 880-5079/1-A	Method Blank	Soluble	Solid	300.0	5079
LCS 880-5079/2-A	Lab Control Sample	Soluble	Solid	300.0	5079
LCSD 880-5079/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5079

Analysis Batch: 5204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-918-17	WHI @ surface	Soluble	Solid	300.0	5080
890-918-18	WHI @ 1	Soluble	Solid	300.0	5080
MB 880-5080/1-A	Method Blank	Soluble	Solid	300.0	5080
LCS 880-5080/2-A	Lab Control Sample	Soluble	Solid	300.0	5080
LCSD 880-5080/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5080
890-918-17 MS	WHI @ surface	Soluble	Solid	300.0	5080
890-918-17 MSD	WHI @ surface	Soluble	Solid	300.0	5080

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP1 @ surface

Lab Sample ID: 890-918-1

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 06:05	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 14:36	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		5	5130	07/13/21 20:47	CH	XEN MID

Client Sample ID: SP1 @ 4

Lab Sample ID: 890-918-2

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 06:26	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 15:38	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		1	5130	07/14/21 12:31	CH	XEN MID

Client Sample ID: SP2 @ surface

Lab Sample ID: 890-918-3

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 06:46	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 15:59	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		5	5130	07/13/21 21:09	CH	XEN MID

Client Sample ID: SP2 @ 1

Lab Sample ID: 890-918-4

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 07:07	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 16:20	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		5	5130	07/13/21 21:15	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP3 @ surface

Lab Sample ID: 890-918-5

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 07:28	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 16:40	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		1	5130	07/14/21 12:37	CH	XEN MID

Client Sample ID: SP3 @ 1

Lab Sample ID: 890-918-6

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 07:48	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 17:01	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		1	5130	07/14/21 12:43	CH	XEN MID

Client Sample ID: SP4 @ surface

Lab Sample ID: 890-918-7

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 08:09	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 17:22	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		1	5130	07/14/21 12:48	CH	XEN MID

Client Sample ID: SP4 @ 1

Lab Sample ID: 890-918-8

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 08:29	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 17:43	AM	XEN MID
Soluble	Leach	DI Leach			5076	07/12/21 16:10	CH	XEN MID
Soluble	Analysis	300.0		1	5130	07/14/21 12:54	CH	XEN MID

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Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: SP5 @ surface

Lab Sample ID: 890-918-9

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 08:50	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 18:03	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/15/21 11:38	CH	XEN MID

Client Sample ID: SP5 @ 1

Lab Sample ID: 890-918-10

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 09:11	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 18:24	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/15/21 11:44	CH	XEN MID

Client Sample ID: NH1 @ surface

Lab Sample ID: 890-918-11

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 10:34	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 19:06	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/14/21 20:32	CH	XEN MID

Client Sample ID: NH1 @ 1

Lab Sample ID: 890-918-12

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 10:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 19:27	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/14/21 20:37	CH	XEN MID

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Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: EH1 @ surface

Lab Sample ID: 890-918-13

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 11:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 19:47	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/15/21 11:49	CH	XEN MID

Client Sample ID: EH1 @ 1

Lab Sample ID: 890-918-14

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 11:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 20:08	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/15/21 11:55	CH	XEN MID

Client Sample ID: SH1 @ Surface

Lab Sample ID: 890-918-15

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 11:57	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 20:29	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/15/21 12:00	CH	XEN MID

Client Sample ID: SH1 @ 1

Lab Sample ID: 890-918-16

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 12:18	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 20:50	AM	XEN MID
Soluble	Leach	DI Leach			5079	07/12/21 10:14	CH	XEN MID
Soluble	Analysis	300.0		1	5203	07/14/21 20:59	CH	XEN MID

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Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Client Sample ID: WHI @ surface

Lab Sample ID: 890-918-17

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 12:38	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 21:11	AM	XEN MID
Soluble	Leach	DI Leach			5080	07/12/21 10:19	CH	XEN MID
Soluble	Analysis	300.0		5	5204	07/14/21 21:43	CH	XEN MID

Client Sample ID: WHI @ 1

Lab Sample ID: 890-918-18

Date Collected: 07/09/21 00:00

Matrix: Solid

Date Received: 07/09/21 15:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5111	07/13/21 15:04	KL	XEN MID
Total/NA	Analysis	8021B		1	5114	07/14/21 12:59	KL	XEN MID
Total/NA	Prep	8015NM Prep			5136	07/14/21 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5176	07/14/21 21:32	AM	XEN MID
Soluble	Leach	DI Leach			5080	07/12/21 10:19	CH	XEN MID
Soluble	Analysis	300.0		5	5204	07/14/21 21:59	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Momba Lay Flatline Release

Job ID: 890-918-1
SDG: 14434

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-918-1	SP1 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-2	SP1 @ 4	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-3	SP2 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-4	SP2 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-5	SP3 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-6	SP3 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-7	SP4 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-8	SP4 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-9	SP5 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-10	SP5 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-11	NH1 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-12	NH1 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-13	EH1 @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-14	EH1 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-15	SH1 @ Surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-16	SH1 @ 1	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-17	WHI @ surface	Solid	07/09/21 00:00	07/09/21 15:12	
890-918-18	WHI @ 1	Solid	07/09/21 00:00	07/09/21 15:12	



**Environment Testing
Xenco**

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: _____

www.xenco.com Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	E Tech Environmental	Company Name:	COG
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lawington, NM 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	PM@etcchen.v.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Mamba Jay Flatline Release		Turn Around				ANALYSIS REQUEST										Preservative Codes				
Project Number:		14434		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Pres. Code												None: NO DI Water: H ₂ O				
Project Location:		Rural Eddy co, NM		Due Date:														Cool: Cool MeOH: Me				
Sampler's Name:		[Signature]		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC HNO ₃ : HN				
PO #:																		H ₂ SO ₄ : H ₂ NaOH: Na				
SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														H ₃ PO ₄ : HP				
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:		TMM003												NaHSO ₄ : NABIS				
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Correction Factor:		10.2												Na ₂ S ₂ O ₃ : NaSO ₃				
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Temperature Reading:		10.0												Zn Acetate+NaOH: Zn				
Total Containers:				Corrected Temperature:														NaOH+Ascorbic Acid: SAPC				
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Chlorides	BTEX	TPH											Sample Comments	
SP1 @ surface		Soil	7/9/21		-	G	1	X	X	X												
SP1 @ 4'					4'			X	X	X												
SP2 @ surface					-			X	X	X												
SP2 @ 1'					1'			X	X	X												
SP3 @ surface					-			X	X	X												
SP3 @ 1'					1'			X	X	X												
SP4 @ surface					-			X	X	X												
SP4 @ 1'					1'			X	X	X												
SP5 @ surface					-			X	X	X												
SP5 @ 1'					1'			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
[Signature]	[Signature]	07-09-21 1512			

Revised Date: 08/25/2020 Rev. 2020.2



**Environment Testing
Xenco**

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: _____

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Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	E-Tech Environmental	Company Name:	CDG
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lawton, NM 78260	City, State ZIP:	
Phone:	575-396-2378	Email:	PM@etechnv.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Turn Around		ANALYSIS REQUEST																Preservative Codes											
Project Number:		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Pres. Code																		None: NO DI Water: H ₂ O									
Project Location:		Due Date:		Parameters																		Cool: Cool MeOH: Me									
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm		Chlorides																		HCL: HC HNO ₃ : HN									
PO #:				BTEX																		H ₂ SO ₄ : H ₂ NaOH: Na									
SAMPLE RECEIPT		Temp Blank:		Wet Ice:		Yes No		Yes No																		H ₃ PO ₄ : HP					
Samples Received Intact:		Yes No		Thermometer ID:		Pg 1																		NaHSO ₄ : NABIS							
Cooler Custody Seals:		Yes No N/A		Correction Factor:																		Na ₂ S ₂ O ₃ : NaSO ₃									
Sample Custody Seals:		Yes No N/A		Temperature Reading:																		Zn Acetate+NaOH: Zn									
Total Containers:				Corrected Temperature:																		NaOH+Ascorbic Acid: SAPC									
Sample Identification		Matrix		Date Sampled		Time Sampled		Depth		Grab/Comp		# of Cont																		Sample Comments	
NH1 @ surface		Soil		7/9/21				-		Grab		1																			
NH1 @ 1'								1'																							
EH1 @ surface								1'																							
EH1 @ 1'								1'																							
SH1 @ surface								1'																							
SH1 @ 1'								1'																							
WH1 @ surface								1'																							
WH1 @ 1'								1'																							

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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
<i>[Signature]</i>	<i>[Signature]</i>	7-09-21 1512			
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-918-1

SDG Number: 14434

Login Number: 918

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-918-1

SDG Number: 14434

Login Number: 918

List Number: 2

Creator: Lowe, Katie

List Source: Eurofins Xenco, Midland

List Creation: 07/13/21 02:48 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").	True	

Appendix D

Photographic Log

Photographic Log



Photographic Log



Photographic Log

Photo Number: 5	
Photo Direction: East	
Photo Description: View of the affected area.	

Incident ID	nAPP2120130933
District RP	
Facility ID	
Application ID	

Remediation Plan

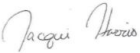
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jacqui Harris Title: Environmental Coordinator
Signature:  Date: 9.27.21
email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

OCD Only

Received by: Robert Hamlet Date: 2/8/2022

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

Signature:  Date: 2/8/2022

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 52481

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 52481
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. This release has occurred in a high karst area and will need to be remediated to the strictest closure criteria of <50' depth to groundwater from Table 1 of the spill rule. Confirmation samples need to be collected no more than 200 ft2 in the primary pooling area and the release area characterized as the runoff area. representative composite confirmation soil samples collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear feet is approved.	2/8/2022