District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2024540841
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Centennial Resource Production, Inc	OGRID: 372165
Contact Name: Jamon Hohensee	Contact Telephone: 432-241-4283
Contact email: jamon.hohensee@cdevinc.com	Incident # *(assigned by OCD)*
Contact mailing address: 500 W. Illinois Ave, Suite 500, Midland Texas 79705	

Location of Release Source

Latitude 32.55063 Longitude -103.44586
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mango BRM State 1H	Site Type: Production Facility
Date Release Discovered: 8/24/20	API# 30025405170000

Unit Letter	Section	Township	Range	County
C	27	20S	35E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

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

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

Cause of Release
Overpressure of packing in the stuffing box on pump jack. There were no free-standing fluids to be recovered. Source of spill was stopped, and site was secured. Site will be remediated to state standards and a closure report will be submitted to the OCD. Surface area, porosity, and saturation was used to determine the volume released.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2024540841
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

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

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

Printed Name: Jamon Hohensee Title: Sr. Environmental Analyst

Signature: [signature] Date: 8-31-20

email: jamon.hohensee@cdevinc.com Telephone: 432-241-4283

OCD Only

Received by: Ramona Marcus Date: 9/1/2020

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Jamon Hohensee Title: Sr. Environmental Analyst

Signature: Jam Hoh Date: 3-16-21

email: jamon.hohensee Telephone: 432-241-4283

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
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: Jamon Hohensee Title: Sr. Environmental Analyst

Signature: [signature] Date: 3-16-21

email: jamon.hohensee Telephone: 432-241-4283

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jamon Hohensee Title: Sr. Environmental Analyst

Signature: [signature] Date: 3-16-21

email: jamon.hohensee@cdevinc.com Telephone: 432-741-4283

OCD Only

Received by: Chad Hensley Date: 04/30/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Chad Hensley Date: 04/30/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

CLOSURE REQUEST AND REMEDIATION SUMMARY REPORT

Centennial Resource Development, Inc.
Mango BRM State 1H
Lea County, New Mexico
Unit Letter "C", Section 27, Township 20 South, Range 35 East
Latitude 32.55063° North, Longitude 103.44586° West
NMOCD Incident ID#: NRM2024540841

Prepared For:

Centennial Resource Development, Inc.
500 W. Illinois Avenue
Suite 500
Midland, Texas 79701

Prepared By:

Etech Environmental & Safety Solutions, Inc.
P.O. Box 62228
Midland, Texas 79711

March 2021

Shannon M. English, P.G.
Project Manager

Matthew K. Green, P.G.
Senior Project Manager

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

INTRODUCTION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Centennial Resource Development, Inc. (Centennial) has prepared this Closure Request and Remediation Summary Report for the Release Site known as Mango BRM State 1H. The legal description of the Release Site is Unit Letter "C", Section 27, Township 20 South, Range 35 East, in Lea County, New Mexico. The Release Site GPS coordinates are 32.55063º North and 103.44586º West. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site Details and Confirmation Sample Map.

On August 24, 2020, a crude oil release was discovered by Centennial at the Mango BRM State 1H Site. The release was the result of overpressure of packing in the stuffing box on the pump jack. Approximately ten (10) barrels of crude oil were released with zero (0) barrels recovered, resulting in a net loss of approximately ten (10) barrels of crude oil. On August 31, 2020, Centennial filed a *Release Notification and Corrective Action Form* (Form C-141) with the New Mexico Oil Conservation Division (NMOCD). The Form C-141 is provided as Appendix C. Photographic documentation for the site is provided as Appendix A.

NMOCD SITE CLASSIFICATION

A search of the groundwater database maintained by United States Geological Survey (USGS) did not identify any registered water wells within a quarter (1/4) mile of the Mango BRM State 1H Release Site. A further search of the USGS database identified the closest registered water well is USGS Well #: 323106103273401 located approximately two (2) miles southwest of the Release Site. The average depth to groundwater for USGS Well #: 323106103273401 should be encountered at approximately eighty-nine (89) feet below ground surface (bgs). Based on the NMOCD site classification system, ten (10) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one thousand (1,000) feet of the release. Based on the NMOCD site classification system, ten (10) points will be assigned to the Mango BRM State 1H Release Site as a result of this criterion. Based on insufficient groundwater data, the soil remediation levels for this site are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)
- Chloride – 600 mg/Kg (ppm)

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 25, 2020, Etech was assigned management responsibilities for soil sampling, site restoration, and reporting activities by Centennial.

On November 11th, 12th, 13th, 16th, and 17th, 2020, Etech utilized a heated pressure washer and degreaser to clean over sprayed equipment. On November 9th, 10th, 13th, and 16th-18th, 2020, Etech conducted excavation activities. On November 19, 2020, and November 24, 2020, following

excavation activities, twenty-four (24) composite bottom hole soil samples (BH-1 @ 6" through BH-5 @ 6", BH-6 @ 2', and BH-7 @ 6" through BH-24 @ 6") and ten (10) composite sidewall soil samples (NW-1 @ 6" through NW-3 @ 6", SW-1 @ 6" through SW-3 @ 6", SW-6 @ 1', EW-1 @ 6", EW-2 @ 6", and WW-2 @ 6") were collected from the excavated areas. Soil samples were submitted to Eurofins in Midland, Texas to be and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using EPA Method SW 846-8015M, and chloride using EPA Method E 300.0. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits and/or laboratory method detection limits with the exceptions of composite bottom hole soil samples BH-8 @ 6", BH-9 @ 6", and sidewall composite soil samples SW-6 @ 1' which exhibited TPH concentrations above NMOCD limits. Sidewall composite soil sample WW-2 @ 6" exhibited chloride concentrations above NMOCD limits. Please reference Figure 2 for site details and soil sampling locations. Based on analytical results, further excavation was needed for the areas represented by composite bottomhole samples BH-8 @ 6" and BH-9 @ 6" and sidewall composite soil samples SW-6 @ 1' and WW-2 @ 8".

On December 7th-10th, 2020, Etech conducted additional excavation activities. Following the additional excavation activities two (2) additional composite bottom hole soil sample (BH-8 @ 1' and BH-9 @ 1') and seven (7) additional composite sidewall soil samples (NW-8 @ 1', SW-6 @ 1', SW-8 @ 1', SEW-8 @ 1', EW-8 @ 1', WW-2 @ 1', and WW-8 @1') were collected from the excavated area. Soil samples were submitted to Eurofins and analyzed for BTEX, TPH, and chloride concentrations. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits and/or laboratory method detection limits with the exception of composite sidewall soil sample WW-2 @ 6" which exhibited chloride concentrations above NMOCD limits. Please reference Figure 2 for site details and soil sampling locations. Based on analytical results, further excavation was needed for the area represented by composite sidewall soil sample WW-2@ 6".

On December 29, 2020, following additional excavation activities, one (1) composite sidewall soil sample (WW-2 @ 1.5') was collected from the area represented by sidewall composite soil sample WW-2 @ 6" and submitted to Eurofins for chloride analysis. Please reference Figure 2 for site details and soil sampling locations. A review of laboratory analytical results indicated the collected composite soil sample was below applicable NMOCD limits.

Based on laboratory analytical results, all impacted soil has been removed from the release area. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are provided as Appendix B.

SOIL DISPOSAL AND CLOSURE REQUEST

On November 17th-20th, 2020 and January 14th, 15th, and 18th 2021, Etech, on behalf of Centennial, transported approximately 612 cubic yards of material to Sundance Services, Inc. Parabo Facility (NMOCD Permit #: NM-01-0003) located on Highway 18 near Eunice, New Mexico for disposal. On January 13th-14th, 2021, backfill activities were completed at the Release Site utilizing non-impacted, soil purchased from a local source and the impacted area was re-contoured to fit the surrounding topography.

Based on the analytical results of confirmation soil samples collected from the excavation, impacted soils were brought to surface and confirmation soil samples below applicable NMOCD regulatory limits. Etech, on behalf of Centennial, respectfully request that the NMOCD District 1 Office grant site closure to the Mango BRM State 1H Release Site (NMOCD Incident ID#: NRM2024540841).

LIMITATIONS

Etech has prepared this Closure Request and Remediation Summary Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Etech has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech also 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 Centennial Resource Development, Inc. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Etech and/or Centennial Resource Development, Inc.

DISTRIBUTION

Copy 1: New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1624 N. French Drive
Hobbs, New Mexico 88210

Copy 2: Jamon Hohensee
Centennial Resource Development, Inc.
500 W. Illinois, Suite 500
Midland, Texas 79701

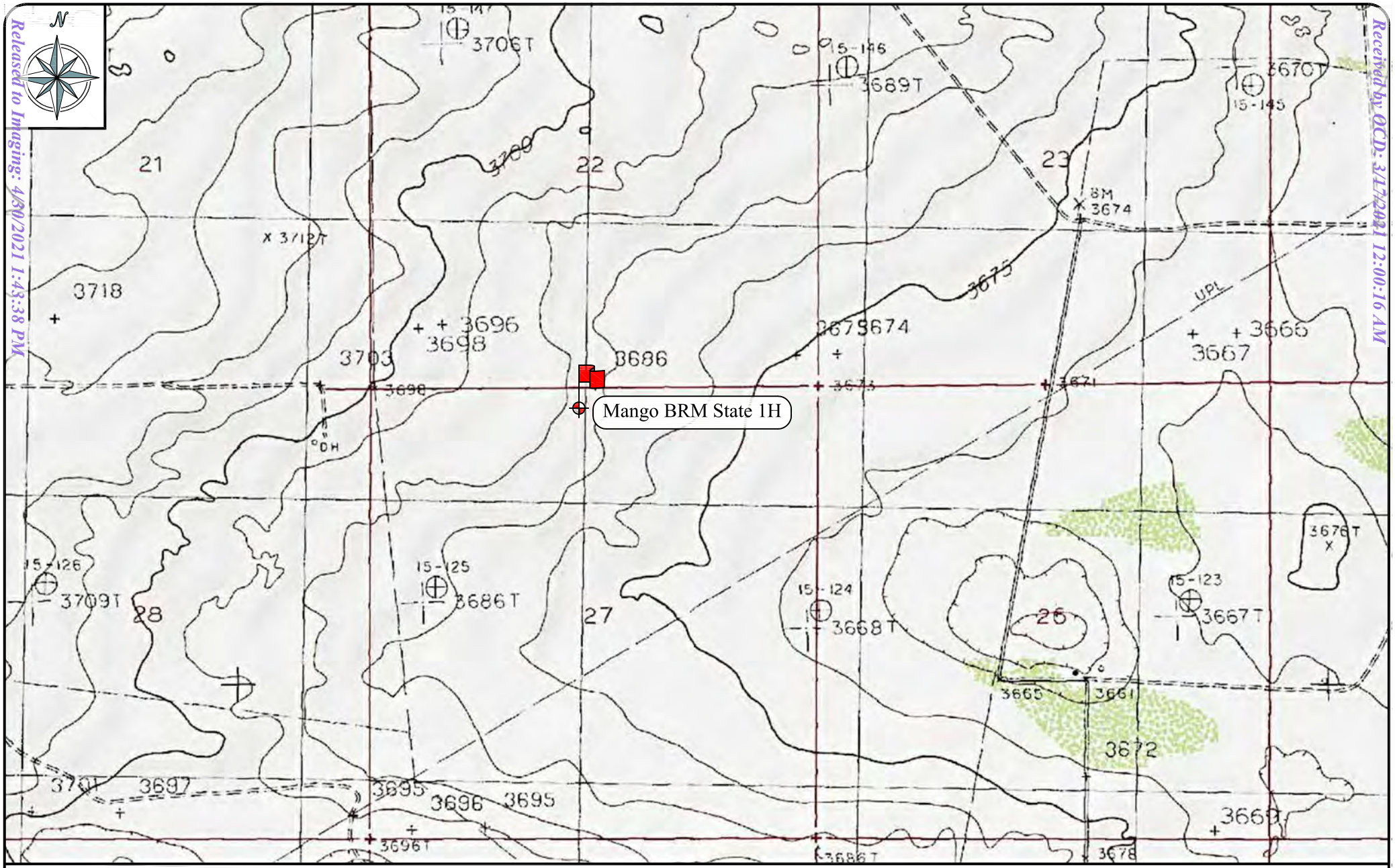
Copy 3: Etech Environmental & Safety Solutions, Inc.
P.O. Box 62228
Midland, Texas 79711

FIGURES

Figure 1 – Site Location Map
Figure 2 – Site Details and Confirmation Sample Map

Closure Request and Remediation Summary Report
Mango BRM State 1H

eTECH Environmental & Safety Solutions, Inc.



Site - Mango BRM State 1H
Site Location Map
Centeninal Resource Development, Inc.
Lea County, NM
N 32.55063°, W 103.44586°
December 10, 2020

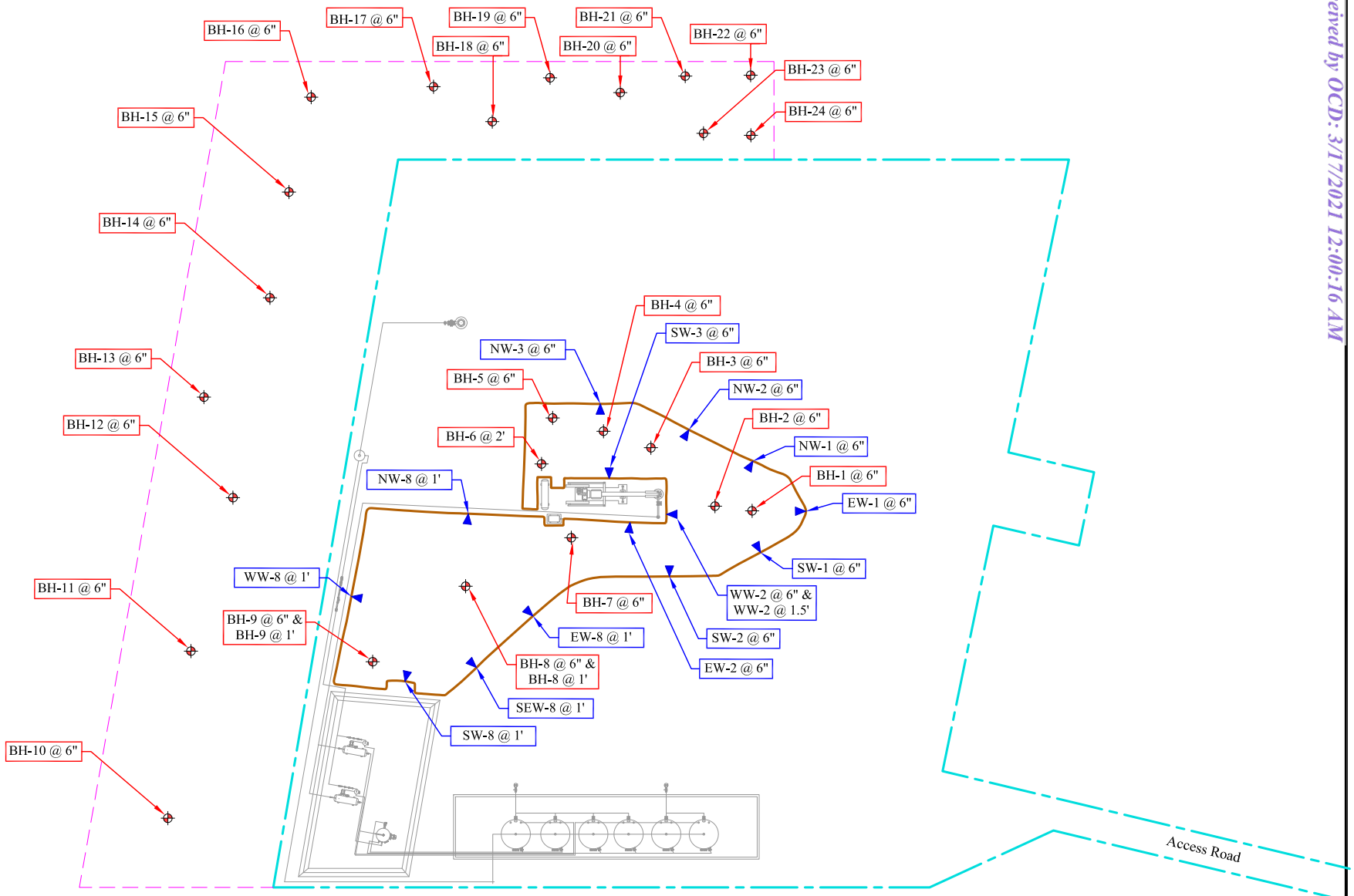
Legend

= Site Location

eTECH Environmental & Safety Solutions, Inc.

Job No.: 1226-12969

Figure 1



Site - Mango BRM State 1H
Site Details and Confirmation Sample Map
Centeninal Resource Development, Inc.
Lea County, NM
N 32.55063°, W 103.44586°
December 10, 2020

Legend

= Bottom Hole Sampling Point

= Side Wall Sampling Point

All sample points are approximate

Excavation Perimeter

Site Perimeter

Brush Perimeter

0 100 200
Feet

eTECH Environmental & Safety Solutions, Inc.

Job No.: 1226-12969

Figure 2

TABLES

Table 1 – Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil

Closure Request and Remediation Summary Report
Mango BRM State 1H

eTECH Environmental & Safety Solutions, Inc.

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M					E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
Bottom Hole Sample Results													
BH-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.5
BH-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34.8
BH-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	79.9
BH-4 @ 6"	11/24/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.8
BH-5 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	89.0
BH-6 @ 2'	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	92.9
BH-7 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.0
BH-8 @ 6"	11/19/2020	ND	0.00234	0.00785	0.0147	0.0127	0.02740	0.03759	387	5,110	604	**6,101**	227
BH-8 @ 1'	12/10/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
BH-9 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	843	128	**971**	344
BH-9 @ 1'	12/10/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
BH-10 @ 6"	11/19/2020	ND	0.00380	0.00282	0.00489	0.00392	0.008810	0.01543	ND	ND	ND	ND	14.6
BH-11 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.9
BH-12 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.72
BH-13 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.20
BH-14 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.42
BH-15 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.8
BH-16 @ 6"	11/19/2020	ND	0.00302	0.00251	0.00489	0.00365	0.008540	0.01407	ND	ND	ND	ND	6.80
BH-17 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.83
BH-18 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.29

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M					E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
BH-19 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.4
BH-20 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.08
BH-21 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.55
BH-22 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.07
BH-23 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.13
BH-24 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.80
Sidewall Sample Results													
NW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33.6
NW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.2
NW-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	385
NW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	325
SW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71.7
SW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.2
SW-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37.4
SW-6 @ 1'	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	244	ND	**244**	21.1
SW-6 @ 1'	12/8/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
SW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.64
SEW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.6
EW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55.7
EW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.1
EW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.4

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M					E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
WW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**603**
WW-2 @ 6"	12/8/2020	-	-	-	-	-	-	-	-	-	-	-	**936**
WW-2 @ 1.5'	12/29/2020	-	-	-	-	-	-	-	-	-	-	-	40.4
WW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Bold and Yellow Highlighted indicates Analyte Above NMOCD Regulatory Limits

ND - Analyte not Detected at or above the Laboratory Reporting Limits

APPENDIX A

Photographic Documentation

Closure Request and Remediation Summary Report
Mango BRM State 1H

eTECH Environmental & Safety Solutions, Inc.

Project Name: *Mango BRM State 1H*
Project No: *12969*

Photographic Documentation

Photo No: **1.**	
Direction Taken: Northwest	
Description: View of the release area.	

Photo No: **2.**	
Direction Taken: Northwest	
Description: View of the release area.	

Project Name: *Mango BRM State 1H*
Project No: *12969*

Photographic Documentation

Photo No: **3.**	
Direction Taken: North	
Description: View of the release area.	

Photo No: **4.**	
Direction Taken: South	
Description: View of the excavated area.	

Project Name: *Mango BRM State 1H*
Project No: *12969*

Photographic Documentation

Photo No: **5.**	
Direction Taken: East	
Description: View of the excavated area.	

Photo No: **6.**	
Direction Taken: West	
Description: View of the excavated area.	

Project Name: *Mango BRM State 1H*
Project No: *12969*

Photographic Documentation

Photo No: **7.**	
Direction Taken: North	
Description: View of the remediated area.	

Photo No: **8.**	
Direction Taken: Southwest	
Description: View of the remediated area.	

Project Name: *Mango BRM State 1H*
Project No: *12969*

Photographic Documentation

Photo No: **9.**	
Direction Taken: West	
Description: View of the remediated area.	

APPENDIX B

Laboratory Analytical Reports

Closure Request and Remediation Summary Report
Mango BRM State 1H

eTECH Environmental & Safety Solutions, Inc.

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678984-001		678984-002		678984-003		678984-004		678984-005		678984-006	
	Field Id:	BH-1 @ 6"		NW-1 @ 6"		SW-1 @ 6"		EW-1 @ 6"		BH-2 @ 6"		NW-2 @ 6"	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.19.2020 08:20		11.19.2020 08:25		11.19.2020 08:27		11.19.2020 08:32		11.19.2020 09:20		11.19.2020 09:25	
BTEX by EPA 8021B	***Extracted:***	12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00	
	Analyzed:	12.01.2020 13:19		12.01.2020 14:21		12.01.2020 14:42		12.01.2020 15:03		12.01.2020 15:23		12.01.2020 15:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
m,p-Xylenes		ND	0.00399	ND	0.00400	ND	0.00401	ND	0.00402	ND	0.00402	ND	0.00403
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Total Xylenes		ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002010	ND	0.002010	ND	0.002020
Total BTEX		ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002010	ND	0.002010	ND	0.002020
Chloride by EPA 300	***Extracted:***	11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00	
	Analyzed:	11.25.2020 11:22		11.25.2020 11:38		11.25.2020 11:43		11.25.2020 11:48		11.25.2020 11:53		11.25.2020 12:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		19.5	5.00	33.6	5.03	71.7	4.99	55.7	4.97	34.8	5.05	17.2	4.98
TPH by SW8015 Mod	***Extracted:***	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00	
	Analyzed:	11.26.2020 11:16		11.26.2020 12:23		11.26.2020 12:46		11.26.2020 13:08		11.26.2020 13:31		11.26.2020 13:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Diesel Range Organics (DRO)		ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Motor Oil Range Hydrocarbons (MRO)		ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Total TPH		ND	50.00	ND	50.00	ND	49.90	ND	49.90	ND	49.80	ND	50.00

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested		678984-007		678984-008		678984-009		678984-010		678984-011		678984-012	
	Field Id:	SW-2@ 6"		EW-2 @ 6"		WW-2 @ 6"		BH-3 @ 6"		NW-3 @ 6"		SW-3 @ 6"	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.19.2020 09:28		11.19.2020 09:30		11.19.2020 09:35		11.19.2020 10:00		11.19.2020 10:05		11.19.2020 10:10	
BTEX by EPA 8021B	*Extracted:*	12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00	
	Analyzed:	12.01.2020 16:05		12.01.2020 16:25		12.01.2020 18:02		12.01.2020 18:23		12.01.2020 18:43		12.01.2020 19:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Toluene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Ethylbenzene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
m,p-Xylenes		ND	0.00399	ND	0.00398	ND	0.00398	ND	0.00399	ND	0.00400	ND	0.00402
o-Xylene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Total Xylenes		ND	0.002000	ND	0.001990	ND	0.001990	ND	0.002000	ND	0.002000	ND	0.002010
Total BTEX		ND	0.002000	ND	0.001990	ND	0.001990	ND	0.002000	ND	0.002000	ND	0.002010
Chloride by EPA 300	*Extracted:*	11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00	
	Analyzed:	11.25.2020 12:15		11.25.2020 12:20		11.25.2020 12:25		11.25.2020 12:30		11.25.2020 12:36		11.25.2020 12:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		75.2	5.00	23.1	5.02	603	4.97	79.9	4.99	385	4.96	37.4	5.04
TPH by SW8015 Mod	*Extracted:*	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00	
	Analyzed:	11.26.2020 14:16		11.26.2020 14:38		11.26.2020 15:01		11.26.2020 15:23		11.26.2020 16:08		11.26.2020 16:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0
Diesel Range Organics (DRO)		ND	49.9	ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0
Total TPH		ND	49.90	ND	50.00	ND	49.90	ND	49.90	ND	49.90	ND	50.00

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678984-013		678984-014		678984-015		678984-016		678984-017		678984-018	
	Field Id:	BH-4 @ 6"		BH-5 @ 6"		BH-6 @ 2'		SW-6 @ 1'		BH-7 @ 6"		BH-8 @ 6"	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.24.2020 11:15		11.19.2020 10:35		11.19.2020 10:40		11.19.2020 10:45		11.19.2020 10:40		11.19.2020 10:45	
BTEX by EPA 8021B	***Extracted:***	12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00		12.01.2020 08:00	
	Analyzed:	12.01.2020 19:24		12.01.2020 19:45		12.01.2020 20:06		12.01.2020 20:26		12.01.2020 20:47		12.01.2020 21:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	ND	0.00199
Toluene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.00234	0.00199
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.00785	0.00199
m,p-Xylenes		ND	0.00401	ND	0.00399	ND	0.00397	ND	0.00396	ND	0.00398	0.0147	0.00398
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.0127	0.00199
Total Xylenes		ND	0.002000	ND	0.002000	ND	0.001980	ND	0.001980	ND	0.001990	0.02740	0.001990
Total BTEX		ND	0.002000	ND	0.002000	ND	0.001980	ND	0.001980	ND	0.001990	0.03759	0.001990
Chloride by EPA 300	***Extracted:***	11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00	
	Analyzed:	11.25.2020 12:57		11.25.2020 13:13		11.25.2020 13:18		11.25.2020 13:23		11.25.2020 13:28		11.25.2020 13:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		47.8	4.97	89.0	5.00	92.9	5.02	21.1	4.98	23.0	4.95	227	4.95
TPH by SW8015 Mod	***Extracted:***	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00	
	Analyzed:	11.26.2020 16:53		11.26.2020 17:15		11.26.2020 17:37		11.26.2020 18:00		11.26.2020 18:22		11.26.2020 18:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9	ND	50.0	387	49.9
Diesel Range Organics (DRO)		ND	49.9	ND	50.0	ND	49.8	244	49.9	ND	50.0	5110	49.9
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9	ND	50.0	604	49.9
Total TPH		ND	49.90	ND	50.00	ND	49.80	244.0	49.90	ND	50.00	6101	49.90

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678984-019		678984-020		678984-021		678984-022		678984-023		678984-024	
	Field Id:	BH-9 @ 6"		BH-10 @ 6"		BH-11 @ 6"		BH-12 @ 6"		BH-13 @ 6"		BH-14 @ 6"	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.19.2020 10:45		11.19.2020 10:48		11.19.2020 10:51		11.19.2020 10:54		11.19.2020 10:58		11.19.2020 11:00	
BTEX by EPA 8021B	***Extracted:***	12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00	
	Analyzed:	12.02.2020 01:55		12.02.2020 02:16		12.02.2020 00:33		12.02.2020 02:36		12.02.2020 02:57		12.02.2020 03:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Toluene		ND	0.00200	0.00380	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	0.00282	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m,p-Xylenes		ND	0.00400	0.00489	0.00400	ND	0.00400	ND	0.00400	ND	0.00400	ND	0.00400
o-Xylene		ND	0.00200	0.00392	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes		ND	0.002000	0.008810	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Total BTEX		ND	0.002000	0.01543	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Chloride by EPA 300	***Extracted:***	11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30	
	Analyzed:	11.25.2020 13:39		11.25.2020 13:44		11.25.2020 17:10		11.25.2020 17:26		11.25.2020 17:31		11.25.2020 17:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		344	4.95	14.6	5.05	11.9	5.00	9.72	5.00	9.20	5.00	8.42	5.00
TPH by SW8015 Mod	***Extracted:***	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00	
	Analyzed:	11.26.2020 19:07		11.26.2020 19:29		11.26.2020 11:16		11.26.2020 12:23		11.26.2020 12:46		11.26.2020 13:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Diesel Range Organics (DRO)		843	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Motor Oil Range Hydrocarbons (MRO)		128	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Total TPH		971.0	49.90	ND	50.00	ND	49.80	ND	50.00	ND	50.00	ND	49.90

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678984-025		678984-026		678984-027		678984-028		678984-029		678984-030	
	Field Id:	BH-15 @ 6"		BH-16 @ 6"		BH-17 @ 6"		BH-18 @ 6"		BH-19 @ 6"		BH-20 @ 6"	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.19.2020 11:02		11.19.2020 11:03		11.19.2020 11:20		11.19.2020 11:30		11.19.2020 11:40		11.19.2020 13:01	
BTEX by EPA 8021B	***Extracted:***	12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00	
	Analyzed:	12.02.2020 03:38		12.02.2020 05:02		12.02.2020 05:22		12.02.2020 05:43		12.02.2020 06:03		12.02.2020 06:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Toluene		ND	0.00200	0.00302	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	0.00251	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m,p-Xylenes		ND	0.00400	0.00489	0.00400	ND	0.00400	ND	0.00400	ND	0.00400	ND	0.00400
o-Xylene		ND	0.00200	0.00365	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes		ND	0.002000	0.008540	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Total BTEX		ND	0.002000	0.01407	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Chloride by EPA 300	***Extracted:***	11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30	
	Analyzed:	11.25.2020 17:42		11.25.2020 17:58		11.25.2020 18:03		11.25.2020 18:08		11.25.2020 18:14		11.25.2020 18:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		10.8	5.00	6.80	5.00	8.83	5.00	9.29	5.00	12.4	5.00	9.08	5.00
TPH by SW8015 Mod	***Extracted:***	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00	
	Analyzed:	11.26.2020 13:31		11.26.2020 13:53		11.26.2020 14:16		11.26.2020 14:38		11.26.2020 15:01		11.26.2020 15:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Diesel Range Organics (DRO)		ND	49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Total TPH		ND	49.90	ND	49.80	ND	49.90	ND	50.00	ND	50.00	ND	50.00

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: 12969
Contact: Matthew Green
Project Location: Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37
Report Date: 01.22.2021 10:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678984-031		678984-032		678984-033		678984-034					
	Field Id:	BH-21 @ 6"		BH-22 @ 6"		BH-23@ 6"		BH-24 @ 6"					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	11.19.2020 13:10		11.19.2020 13:13		11.19.2020 13:18		11.19.2020 13:24					
BTEX by EPA 8021B	***Extracted:***	12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00		12.01.2020 12:00					
	Analyzed:	12.02.2020 06:45		12.02.2020 07:05		12.02.2020 07:26		12.02.2020 07:47					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
m,p-Xylenes		ND	0.00400	ND	0.00400	ND	0.00400	ND	0.00400				
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Total Xylenes		ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000				
Total BTEX		ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000				
Chloride by EPA 300	***Extracted:***	11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30		11.25.2020 11:30					
	Analyzed:	11.25.2020 18:24		11.25.2020 18:40		11.25.2020 18:45		11.25.2020 19:01					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		8.55	5.00	9.07	5.00	9.13	5.00	6.80	5.00				
TPH by SW8015 Mod	***Extracted:***	11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00		11.26.2020 08:00					
	Analyzed:	11.26.2020 16:08		11.26.2020 16:30		11.26.2020 16:53		11.26.2020 17:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9				
Diesel Range Organics (DRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9				
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9				
Total TPH		ND	49.90	ND	50.00	ND	49.80	ND	49.90				

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

eurofins | Environment Testing Xenco

Analytical Report 678984

for

Etech Environmental & Safety Solution, Inc

Project Manager: Matthew Green

Mango BRM State 1H

12969

01.22.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

01.22.2021

Project Manager: **Matthew Green**
Etech Environmental & Safety Solution, Inc
P.O. Box 62228
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **678984**
Mango BRM State 1H
Project Address: Lea County, New Mexico

Matthew Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 678984. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 678984 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 @ 6"	S	11.19.2020 08:20		678984-001
NW-1 @ 6"	S	11.19.2020 08:25		678984-002
SW-1 @ 6"	S	11.19.2020 08:27		678984-003
EW-1 @ 6"	S	11.19.2020 08:32		678984-004
BH-2 @ 6"	S	11.19.2020 09:20		678984-005
NW-2 @ 6"	S	11.19.2020 09:25		678984-006
SW-2@ 6"	S	11.19.2020 09:28		678984-007
EW-2 @ 6"	S	11.19.2020 09:30		678984-008
WW-2 @ 6"	S	11.19.2020 09:35		678984-009
BH-3 @ 6"	S	11.19.2020 10:00		678984-010
NW-3 @ 6"	S	11.19.2020 10:05		678984-011
SW-3 @ 6"	S	11.19.2020 10:10		678984-012
BH-4 @ 6"	S	11.24.2020 11:15		678984-013
BH-5 @ 6"	S	11.19.2020 10:35		678984-014
BH-6 @ 2'	S	11.19.2020 10:40		678984-015
SW-6 @ 1'	S	11.19.2020 10:45		678984-016
BH-7 @ 6"	S	11.19.2020 10:40		678984-017
BH-8 @ 6"	S	11.19.2020 10:45		678984-018
BH-9 @ 6"	S	11.19.2020 10:45		678984-019
BH-10 @ 6"	S	11.19.2020 10:48		678984-020
BH-11 @ 6"	S	11.19.2020 10:51		678984-021
BH-12 @ 6"	S	11.19.2020 10:54		678984-022
BH-13 @ 6"	S	11.19.2020 10:58		678984-023
BH-14 @ 6"	S	11.19.2020 11:00		678984-024
BH-15 @ 6"	S	11.19.2020 11:02		678984-025
BH-16 @ 6"	S	11.19.2020 11:03		678984-026
BH-17 @ 6"	S	11.19.2020 11:20		678984-027
BH-18 @ 6"	S	11.19.2020 11:30		678984-028
BH-19 @ 6"	S	11.19.2020 11:40		678984-029
BH-20 @ 6"	S	11.19.2020 13:01		678984-030
BH-21 @ 6"	S	11.19.2020 13:10		678984-031
BH-22 @ 6"	S	11.19.2020 13:13		678984-032
BH-23@ 6"	S	11.19.2020 13:18		678984-033
BH-24 @ 6"	S	11.19.2020 13:24		678984-034

CASE NARRATIVE

eurofins | Environment Testing Xenco

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Mango BRM State 1H

Project ID: *12969*
Work Order Number(s): *678984*

Report Date: *01.22.2021*
Date Received: *11.24.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143383 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 678984-018.

Batch: LBA-3143691 BTEX by EPA 8021B

Lab Sample ID 678984-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678984-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected;
Samples affected are: 678984-012.

Benzene, Ethylbenzene, Toluene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 678984-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018

CASE NARRATIVE

eurofins | Environment Testing Xenco

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Mango BRM State 1H

Project ID: *12969*
Work Order Number(s): *678984*

Report Date: *01.22.2021*
Date Received: *11.24.2020*

Batch: LBA-3143699 BTEX by EPA 8021B
Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected;
Samples affected are: 678984-019.
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected;
Samples affected are: 678984-021 S,678984-030,678984-019.

Lab Sample ID 678984-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.
Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678984-019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 678984-019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-1 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-001 Date Collected: 11.19.2020 08:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.5**	5.00	mg/kg	11.25.2020 11:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 11:16	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 11:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	11.26.2020 11:16	
o-Terphenyl	84-15-1	110	%	70-130	11.26.2020 11:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-1 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-001	Date Collected:	11.19.2020 08:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 13:19	UFX	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 13:19	UXF	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 13:19	UXF	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 13:19	UX	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 13:19	UX	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 13:19	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 13:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.01.2020 13:19	
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.01.2020 13:19	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**NW-1 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-002	Date Collected:	11.19.2020 08:25		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.6**	5.03	mg/kg	11.25.2020 11:38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 12:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	11.26.2020 12:23	
o-Terphenyl	84-15-1	97	%	70-130	11.26.2020 12:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**NW-1 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-002	Date Collected:	11.19.2020 08:25		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 14:21	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 14:21	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 14:21	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.01.2020 14:21	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 14:21	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 14:21	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 14:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.01.2020 14:21	
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.01.2020 14:21	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **SW-1 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-003 Date Collected: 11.19.2020 08:27

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**71.7**	4.99	mg/kg	11.25.2020 11:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 12:46	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 12:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	11.26.2020 12:46	
o-Terphenyl	84-15-1	93	%	70-130	11.26.2020 12:46	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-1 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-003	Date Collected:	11.19.2020 08:27		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
m,p-Xylenes	179601-23-1	ND	0.00401	mg/kg	12.01.2020 14:42	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 14:42	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 14:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.01.2020 14:42	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 14:42	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **EW-1 @ 6"**
Lab Sample Id: 678984-004

Matrix: Soil
Date Collected: 11.19.2020 08:32

Date Received:11.24.2020 16:37

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3143449

Date Prep: 11.25.2020 11:00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.7**	4.97	mg/kg	11.25.2020 11:48		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3143383

Date Prep: 11.26.2020 08:00

Prep Method: SW8015P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 13:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 13:08	
o-Terphenyl	84-15-1	90	%	70-130	11.26.2020 13:08	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**EW-1 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-004	Date Collected:	11.19.2020 08:32		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00201	mg/kg	12.01.2020 15:03	U	1
Toluene	108-88-3	ND	0.00201	mg/kg	12.01.2020 15:03	U	1
Ethylbenzene	100-41-4	ND	0.00201	mg/kg	12.01.2020 15:03	U	1
m,p-Xylenes	179601-23-1	ND	0.00402	mg/kg	12.01.2020 15:03	U	1
o-Xylene	95-47-6	ND	0.00201	mg/kg	12.01.2020 15:03	U	1
Total Xylenes	1330-20-7	ND	0.002010	mg/kg	12.01.2020 15:03	U	1
Total BTEX		ND	0.002010	mg/kg	12.01.2020 15:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.01.2020 15:03	
1,4-Difluorobenzene	540-36-3	81	%	70-130	12.01.2020 15:03	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-2 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-005 Date Collected: 11.19.2020 09:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**34.8**	5.05	mg/kg	11.25.2020 11:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 13:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 13:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 13:31	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 13:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	11.26.2020 13:31	
o-Terphenyl	84-15-1	98	%	70-130	11.26.2020 13:31	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-2 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-005	Date Collected:	11.19.2020 09:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00201	mg/kg	12.01.2020 15:23	U	1
Toluene	108-88-3	ND	0.00201	mg/kg	12.01.2020 15:23	U	1
Ethylbenzene	100-41-4	ND	0.00201	mg/kg	12.01.2020 15:23	U	1
m,p-Xylenes	179601-23-1	ND	0.00402	mg/kg	12.01.2020 15:23	U	1
o-Xylene	95-47-6	ND	0.00201	mg/kg	12.01.2020 15:23	U	1
Total Xylenes	1330-20-7	ND	0.002010	mg/kg	12.01.2020 15:23	U	1
Total BTEX		ND	0.002010	mg/kg	12.01.2020 15:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.01.2020 15:23	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.01.2020 15:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **NW-2 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-006 Date Collected: 11.19.2020 09:25

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.2**	4.98	mg/kg	11.25.2020 12:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 13:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 13:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 13:53	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 13:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	11.26.2020 13:53	
o-Terphenyl	84-15-1	89	%	70-130	11.26.2020 13:53	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**NW-2 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-006	Date Collected:	11.19.2020 09:25		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Toluene	108-88-3	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Ethylbenzene	100-41-4	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
m,p-Xylenes	179601-23-1	ND	0.00403	mg/kg	12.01.2020 15:44	U	1
o-Xylene	95-47-6	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Total Xylenes	1330-20-7	ND	0.002020	mg/kg	12.01.2020 15:44	U	1
Total BTEX		ND	0.002020	mg/kg	12.01.2020 15:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	77	%	70-130	12.01.2020 15:44	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.01.2020 15:44	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-2@ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-007	Date Collected:	11.19.2020 09:28		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.2**	5.00	mg/kg	11.25.2020 12:15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 14:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	11.26.2020 14:16	
o-Terphenyl	84-15-1	91	%	70-130	11.26.2020 14:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-2@ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-007	Date Collected:	11.19.2020 09:28		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 16:05	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 16:05	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 16:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.01.2020 16:05	
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.01.2020 16:05	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **EW-2 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-008 Date Collected: 11.19.2020 09:30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.1**	5.02	mg/kg	11.25.2020 12:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 14:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	11.26.2020 14:38	
o-Terphenyl	84-15-1	89	%	70-130	11.26.2020 14:38	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**EW-2 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-008	Date Collected:	11.19.2020 09:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Toluene	108-88-3	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Ethylbenzene	100-41-4	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
m,p-Xylenes	179601-23-1	ND	0.00398	mg/kg	12.01.2020 16:25	U	1
o-Xylene	95-47-6	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Total Xylenes	1330-20-7	ND	0.001990	mg/kg	12.01.2020 16:25	U	1
Total BTEX		ND	0.001990	mg/kg	12.01.2020 16:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	12.01.2020 16:25	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 16:25	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **WW-2 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-009 Date Collected: 11.19.2020 09:35

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**603**	4.97	mg/kg	11.25.2020 12:25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 15:01	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 15:01	
o-Terphenyl	84-15-1	98	%	70-130	11.26.2020 15:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**WW-2 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-009	Date Collected:	11.19.2020 09:35		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 18:02	U	1
Toluene	108-88-3	ND	0.00199	mg/kg	12.01.2020 18:02	U	1
Ethylbenzene	100-41-4	ND	0.00199	mg/kg	12.01.2020 18:02	U	1
m,p-Xylenes	179601-23-1	ND	0.00398	mg/kg	12.01.2020 18:02	U	1
o-Xylene	95-47-6	ND	0.00199	mg/kg	12.01.2020 18:02	U	1
Total Xylenes	1330-20-7	ND	0.001990	mg/kg	12.01.2020 18:02	U	1
Total BTEX		ND	0.001990	mg/kg	12.01.2020 18:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.01.2020 18:02	
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.01.2020 18:02	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-3 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-010 Date Collected: 11.19.2020 10:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**79.9**	4.99	mg/kg	11.25.2020 12:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 15:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 15:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 15:23	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 15:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	11.26.2020 15:23	
o-Terphenyl	84-15-1	89	%	70-130	11.26.2020 15:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-3 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-010	Date Collected:	11.19.2020 10:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 18:23	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 18:23	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 18:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.01.2020 18:23	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.01.2020 18:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**NW-3 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-011	Date Collected:	11.19.2020 10:05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**385**	4.96	mg/kg	11.25.2020 12:36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 16:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	11.26.2020 16:08	
o-Terphenyl	84-15-1	88	%	70-130	11.26.2020 16:08	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**NW-3 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-011	Date Collected:	11.19.2020 10:05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 18:43	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 18:43	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 18:43	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.01.2020 18:43	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 18:43	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 18:43	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.01.2020 18:43	
1,4-Difluorobenzene	540-36-3	77	%	70-130	12.01.2020 18:43	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-3 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-012	Date Collected:	11.19.2020 10:10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.4**	5.04	mg/kg	11.25.2020 12:51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 16:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	11.26.2020 16:30	
o-Terphenyl	84-15-1	84	%	70-130	11.26.2020 16:30	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-3 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-012	Date Collected:	11.19.2020 10:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00201	mg/kg	12.01.2020 19:04	U	1
Toluene	108-88-3	ND	0.00201	mg/kg	12.01.2020 19:04	U	1
Ethylbenzene	100-41-4	ND	0.00201	mg/kg	12.01.2020 19:04	U	1
m,p-Xylenes	179601-23-1	ND	0.00402	mg/kg	12.01.2020 19:04	U	1
o-Xylene	95-47-6	ND	0.00201	mg/kg	12.01.2020 19:04	U	1
Total Xylenes	1330-20-7	ND	0.002010	mg/kg	12.01.2020 19:04	U	1
Total BTEX		ND	0.002010	mg/kg	12.01.2020 19:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	12.01.2020 19:04	
4-Bromofluorobenzene	460-00-4	52	%	70-130	12.01.2020 19:04	**

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-4 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-013	Date Collected:	11.24.2020 11:15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.8**	4.97	mg/kg	11.25.2020 12:57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 16:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 16:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 16:53	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 16:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	11.26.2020 16:53	
o-Terphenyl	84-15-1	84	%	70-130	11.26.2020 16:53	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-4 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-013	Date Collected:	11.24.2020 11:15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 19:24	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 19:24	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 19:24	U	1
m,p-Xylenes	179601-23-1	ND	0.00401	mg/kg	12.01.2020 19:24	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 19:24	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 19:24	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.01.2020 19:24	
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.01.2020 19:24	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-5 @ 6"**
Lab Sample Id: 678984-014
Matrix: Soil
Date Collected: 11.19.2020 10:35
Date Received: 11.24.2020 16:37

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3143449
Date Prep: 11.25.2020 11:00
Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.0**	5.00	mg/kg	11.25.2020 13:13		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3143383
Date Prep: 11.26.2020 08:00
Prep Method: SW8015P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 17:15	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	11.26.2020 17:15	
o-Terphenyl	84-15-1	102	%	70-130	11.26.2020 17:15	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-5 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-014	Date Collected:	11.19.2020 10:35		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 19:45	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 19:45	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.01.2020 19:45	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.01.2020 19:45	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-6 @ 2'** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-015 Date Collected: 11.19.2020 10:40

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.9**	5.02	mg/kg	11.25.2020 13:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 17:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 17:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 17:37	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 17:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	11.26.2020 17:37	
o-Terphenyl	84-15-1	117	%	70-130	11.26.2020 17:37	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-6 @ 2'**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-015	Date Collected:	11.19.2020 10:40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00198	mg/kg	12.01.2020 20:06	U	1
Toluene	108-88-3	ND	0.00198	mg/kg	12.01.2020 20:06	U	1
Ethylbenzene	100-41-4	ND	0.00198	mg/kg	12.01.2020 20:06	U	1
m,p-Xylenes	179601-23-1	ND	0.00397	mg/kg	12.01.2020 20:06	U	1
o-Xylene	95-47-6	ND	0.00198	mg/kg	12.01.2020 20:06	U	1
Total Xylenes	1330-20-7	ND	0.001980	mg/kg	12.01.2020 20:06	U	1
Total BTEX		ND	0.001980	mg/kg	12.01.2020 20:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.01.2020 20:06	
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.01.2020 20:06	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-6 @ 1'**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-016	Date Collected:	11.19.2020 10:45		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.1**	4.98	mg/kg	11.25.2020 13:23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**244**	49.9	mg/kg	11.26.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 18:00	U	1
Total TPH	PHC635	**244.0**	49.90	mg/kg	11.26.2020 18:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	11.26.2020 18:00	
o-Terphenyl	84-15-1	120	%	70-130	11.26.2020 18:00	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**SW-6 @ 1'**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-016	Date Collected:	11.19.2020 10:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00198	mg/kg	12.01.2020 20:26	U	1
Toluene	108-88-3	ND	0.00198	mg/kg	12.01.2020 20:26	U	1
Ethylbenzene	100-41-4	ND	0.00198	mg/kg	12.01.2020 20:26	U	1
m,p-Xylenes	179601-23-1	ND	0.00396	mg/kg	12.01.2020 20:26	U	1
o-Xylene	95-47-6	ND	0.00198	mg/kg	12.01.2020 20:26	U	1
Total Xylenes	1330-20-7	ND	0.001980	mg/kg	12.01.2020 20:26	U	1
Total BTEX		ND	0.001980	mg/kg	12.01.2020 20:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.01.2020 20:26	
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.01.2020 20:26	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-7 @ 6"**
Lab Sample Id: 678984-017
Matrix: Soil
Date Collected: 11.19.2020 10:40
Date Received: 11.24.2020 16:37

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3143449
Date Prep: 11.25.2020 11:00
Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.0**	4.95	mg/kg	11.25.2020 13:28		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3143383
Date Prep: 11.26.2020 08:00
Prep Method: SW8015P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 18:22	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	11.26.2020 18:22	
o-Terphenyl	84-15-1	109	%	70-130	11.26.2020 18:22	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-7 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-017	Date Collected:	11.19.2020 10:40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Toluene	108-88-3	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Ethylbenzene	100-41-4	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
m,p-Xylenes	179601-23-1	ND	0.00398	mg/kg	12.01.2020 20:47	U	1
o-Xylene	95-47-6	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Total Xylenes	1330-20-7	ND	0.001990	mg/kg	12.01.2020 20:47	U	1
Total BTEX		ND	0.001990	mg/kg	12.01.2020 20:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 20:47	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.01.2020 20:47	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-8 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-018 Date Collected: 11.19.2020 10:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**227**	4.95	mg/kg	11.25.2020 13:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**387**	49.9	mg/kg	11.26.2020 18:45		1
Diesel Range Organics (DRO)	C10C28DRO	**5110**	49.9	mg/kg	11.26.2020 18:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**604**	49.9	mg/kg	11.26.2020 18:45		1
Total TPH	PHC635	**6101**	49.90	mg/kg	11.26.2020 18:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-130	11.26.2020 18:45	
o-Terphenyl	84-15-1	135	%	70-130	11.26.2020 18:45	**

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-8 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-018	Date Collected:	11.19.2020 10:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 08:00	% Moisture:	
Seq Number:	3143691			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 21:07	U	1
Toluene	108-88-3	**0.00234**	0.00199	mg/kg	12.01.2020 21:07		1
Ethylbenzene	100-41-4	**0.00785**	0.00199	mg/kg	12.01.2020 21:07		1
m,p-Xylenes	179601-23-1	**0.0147**	0.00398	mg/kg	12.01.2020 21:07		1
o-Xylene	95-47-6	**0.0127**	0.00199	mg/kg	12.01.2020 21:07		1
Total Xylenes	1330-20-7	**0.02740**	0.001990	mg/kg	12.01.2020 21:07		1
Total BTEX		**0.03759**	0.001990	mg/kg	12.01.2020 21:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.01.2020 21:07	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.01.2020 21:07	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-9 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-019	Date Collected:	11.19.2020 10:45		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143449			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**344**	4.95	mg/kg	11.25.2020 13:39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143383			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 19:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**843**	49.9	mg/kg	11.26.2020 19:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**128**	49.9	mg/kg	11.26.2020 19:07		1
Total TPH	PHC635	**971.0**	49.90	mg/kg	11.26.2020 19:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	11.26.2020 19:07	
o-Terphenyl	84-15-1	113	%	70-130	11.26.2020 19:07	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-9 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-019	Date Collected:	11.19.2020 10:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 01:55	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 01:55	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 01:55	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 01:55	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 01:55	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 01:55	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 01:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	0	%	70-130	12.02.2020 01:55	**
1,4-Difluorobenzene	540-36-3	0	%	70-130	12.02.2020 01:55	**

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-10 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-020 Date Collected: 11.19.2020 10:48

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:00 % Moisture:

Seq Number: 3143449 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.6**	5.05	mg/kg	11.25.2020 13:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143383 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 19:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 19:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 19:29	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 19:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 19:29	
o-Terphenyl	84-15-1	102	%	70-130	11.26.2020 19:29	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-10 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-020	Date Collected:	11.19.2020 10:48		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 02:16	U	1
Toluene	108-88-3	**0.00380**	0.00200	mg/kg	12.02.2020 02:16		1
Ethylbenzene	100-41-4	**0.00282**	0.00200	mg/kg	12.02.2020 02:16		1
m,p-Xylenes	179601-23-1	**0.00489**	0.00400	mg/kg	12.02.2020 02:16		1
o-Xylene	95-47-6	**0.00392**	0.00200	mg/kg	12.02.2020 02:16		1
Total Xylenes	1330-20-7	**0.008810**	0.002000	mg/kg	12.02.2020 02:16		1
Total BTEX		**0.01543**	0.002000	mg/kg	12.02.2020 02:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.02.2020 02:16	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.02.2020 02:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-11 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-021 Date Collected: 11.19.2020 10:51

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.9**	5.00	mg/kg	11.25.2020 17:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 11:16	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 11:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	11.26.2020 11:16	
o-Terphenyl	84-15-1	81	%	70-130	11.26.2020 11:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-11 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-021	Date Collected:	11.19.2020 10:51		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 00:33	UXF	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 00:33	UFX	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 00:33	UFX	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 00:33	UXF	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 00:33	UXF	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 00:33	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 00:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.02.2020 00:33	
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.02.2020 00:33	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-12 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-022 Date Collected: 11.19.2020 10:54

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.72**	5.00	mg/kg	11.25.2020 17:26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 12:23	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 12:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 12:23	
o-Terphenyl	84-15-1	81	%	70-130	11.26.2020 12:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-12 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-022	Date Collected:	11.19.2020 10:54		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 02:36	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 02:36	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 02:36	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 02:36	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 02:36	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 02:36	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 02:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.02.2020 02:36	
1,4-Difluorobenzene	540-36-3	78	%	70-130	12.02.2020 02:36	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-13 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-023 Date Collected: 11.19.2020 10:58

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.20**	5.00	mg/kg	11.25.2020 17:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 12:46	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 12:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 12:46	
o-Terphenyl	84-15-1	79	%	70-130	11.26.2020 12:46	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-13 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-023	Date Collected:	11.19.2020 10:58		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 02:57	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 02:57	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 02:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.02.2020 02:57	
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.02.2020 02:57	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-14 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-024 Date Collected: 11.19.2020 11:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.42**	5.00	mg/kg	11.25.2020 17:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 13:08	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 13:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	11.26.2020 13:08	
o-Terphenyl	84-15-1	80	%	70-130	11.26.2020 13:08	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-14 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-024	Date Collected:	11.19.2020 11:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 03:17	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 03:17	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 03:17	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 03:17	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 03:17	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 03:17	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 03:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.02.2020 03:17	
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.02.2020 03:17	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-15 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-025 Date Collected: 11.19.2020 11:02

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.8**	5.00	mg/kg	11.25.2020 17:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 13:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 13:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 13:31	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 13:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	11.26.2020 13:31	
o-Terphenyl	84-15-1	82	%	70-130	11.26.2020 13:31	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-15 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-025	Date Collected:	11.19.2020 11:02		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 03:38	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 03:38	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 03:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.02.2020 03:38	
1,4-Difluorobenzene	540-36-3	75	%	70-130	12.02.2020 03:38	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-16 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-026	Date Collected:	11.19.2020 11:03		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:30	% Moisture:	
Seq Number:	3143456			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.80**	5.00	mg/kg	11.25.2020 17:58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143386			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 13:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	11.26.2020 13:53	
o-Terphenyl	84-15-1	87	%	70-130	11.26.2020 13:53	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-16 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-026	Date Collected:	11.19.2020 11:03		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 05:02	U	1
Toluene	108-88-3	**0.00302**	0.00200	mg/kg	12.02.2020 05:02		1
Ethylbenzene	100-41-4	**0.00251**	0.00200	mg/kg	12.02.2020 05:02		1
m,p-Xylenes	179601-23-1	**0.00489**	0.00400	mg/kg	12.02.2020 05:02		1
o-Xylene	95-47-6	**0.00365**	0.00200	mg/kg	12.02.2020 05:02		1
Total Xylenes	1330-20-7	**0.008540**	0.002000	mg/kg	12.02.2020 05:02		1
Total BTEX		**0.01407**	0.002000	mg/kg	12.02.2020 05:02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.02.2020 05:02	
1,4-Difluorobenzene	540-36-3	82	%	70-130	12.02.2020 05:02	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-17 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-027	Date Collected:	11.19.2020 11:20		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:30	% Moisture:	
Seq Number:	3143456			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.83**	5.00	mg/kg	11.25.2020 18:03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143386			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 14:16	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 14:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	11.26.2020 14:16	
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 14:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-17 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-027	Date Collected:	11.19.2020 11:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 05:22	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 05:22	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 05:22	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 05:22	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 05:22	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 05:22	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 05:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.02.2020 05:22	
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.02.2020 05:22	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-18 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-028	Date Collected:	11.19.2020 11:30		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:30	% Moisture:	
Seq Number:	3143456			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.29**	5.00	mg/kg	11.25.2020 18:08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143386			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 14:38	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 14:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	11.26.2020 14:38	
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 14:38	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-18 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-028	Date Collected:	11.19.2020 11:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 05:43	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 05:43	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 05:43	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 05:43	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 05:43	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 05:43	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.02.2020 05:43	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.02.2020 05:43	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-19 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-029 Date Collected: 11.19.2020 11:40

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.4**	5.00	mg/kg	11.25.2020 18:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 15:01	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	11.26.2020 15:01	
o-Terphenyl	84-15-1	90	%	70-130	11.26.2020 15:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-19 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-029	Date Collected:	11.19.2020 11:40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 06:03	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 06:03	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 06:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	12.02.2020 06:03	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.02.2020 06:03	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-20 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-030 Date Collected: 11.19.2020 13:01

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.08**	5.00	mg/kg	11.25.2020 18:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 15:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 15:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 15:23	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 15:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	11.26.2020 15:23	
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 15:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-20 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-030	Date Collected:	11.19.2020 13:01		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 06:24	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 06:24	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 06:24	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 06:24	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 06:24	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 06:24	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 06:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	50	%	70-130	12.02.2020 06:24	**
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.02.2020 06:24	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-21 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-031 Date Collected: 11.19.2020 13:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.55**	5.00	mg/kg	11.25.2020 18:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 16:08	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 16:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	11.26.2020 16:08	
o-Terphenyl	84-15-1	77	%	70-130	11.26.2020 16:08	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-21 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-031	Date Collected:	11.19.2020 13:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 06:45	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 06:45	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 06:45	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 06:45	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 06:45	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 06:45	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 06:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.02.2020 06:45	
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.02.2020 06:45	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-22 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-032	Date Collected:	11.19.2020 13:13		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	11.25.2020 11:30	% Moisture:	
Seq Number:	3143456			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.07**	5.00	mg/kg	11.25.2020 18:40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM				
Analyst:	ARM	Date Prep:	11.26.2020 08:00	% Moisture:	
Seq Number:	3143386			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0	mg/kg	11.26.2020 16:30	U	1
Total TPH	PHC635	ND	50.00	mg/kg	11.26.2020 16:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 16:30	
o-Terphenyl	84-15-1	78	%	70-130	11.26.2020 16:30	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-22 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-032	Date Collected:	11.19.2020 13:13		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 07:05	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 07:05	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 07:05	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 07:05	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 07:05	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 07:05	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 07:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	12.02.2020 07:05	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.02.2020 07:05	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-23@ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-033 Date Collected: 11.19.2020 13:18

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.13**	5.00	mg/kg	11.25.2020 18:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 16:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 16:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 16:53	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 16:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	11.26.2020 16:53	
o-Terphenyl	84-15-1	88	%	70-130	11.26.2020 16:53	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-23@ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-033	Date Collected:	11.19.2020 13:18		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 07:26	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 07:26	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 07:26	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 07:26	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 07:26	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 07:26	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 07:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.02.2020 07:26	
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.02.2020 07:26	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-24 @ 6"** Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-034 Date Collected: 11.19.2020 13:24

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.25.2020 11:30 % Moisture:

Seq Number: 3143456 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.80**	5.00	mg/kg	11.25.2020 19:01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: ARM

Analyst: ARM Date Prep: 11.26.2020 08:00 % Moisture:

Seq Number: 3143386 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9	mg/kg	11.26.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9	mg/kg	11.26.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9	mg/kg	11.26.2020 17:15	U	1
Total TPH	PHC635	ND	49.90	mg/kg	11.26.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	11.26.2020 17:15	
o-Terphenyl	84-15-1	80	%	70-130	11.26.2020 17:15	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id:	**BH-24 @ 6"**	Matrix:	Soil	Date Received:	11.24.2020 16:37
Lab Sample Id:	678984-034	Date Collected:	11.19.2020 13:24		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	12.01.2020 12:00	% Moisture:	
Seq Number:	3143699			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 07:47	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 07:47	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 07:47	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 07:47	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 07:47	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 07:47	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 07:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.02.2020 07:47	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.02.2020 07:47	

eurofins | Environment Testing Xenco

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 678984

eurofins | Environment Testing Xenco

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143449 — Matrix: Solid — Date Prep: 11.25.2020
MB Sample Id: 7715957-1-BLK — LCS Sample Id: 7715957-1-BKS — LCSD Sample Id: 7715957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	258	103	259	104	90-110	0	20	mg/kg	11.25.2020 11:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143456 — Matrix: Solid — Date Prep: 11.25.2020
MB Sample Id: 7715965-1-BLK — LCS Sample Id: 7715965-1-BKS — LCSD Sample Id: 7715965-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	263	105	90-110	1	20	mg/kg	11.25.2020 17:00	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143449 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 678984-001 — MS Sample Id: 678984-001 S — MSD Sample Id: 678984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.5	250	276	103	277	103	90-110	0	20	mg/kg	11.25.2020 11:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143449 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 678984-011 — MS Sample Id: 678984-011 S — MSD Sample Id: 678984-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	248	651	107	650	107	90-110	0	20	mg/kg	11.25.2020 12:41	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143456 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 678984-021 — MS Sample Id: 678984-021 S — MSD Sample Id: 678984-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.9	250	269	103	270	103	90-110	0	20	mg/kg	11.25.2020 17:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143456 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 678984-031 — MS Sample Id: 678984-031 S — MSD Sample Id: 678984-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.55	250	264	102	264	102	90-110	0	20	mg/kg	11.25.2020 18:29	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 678984

eurofins | Environment Testing Xenco

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143383 — Matrix: Solid — Date Prep: 11.26.2020
MB Sample Id: 7716025-1-BLK — LCS Sample Id: 7716025-1-BKS — LCSD Sample Id: 7716025-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	928	93	948	95	70-130	2	20	mg/kg	11.26.2020 10:30	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1060	106	70-130	3	20	mg/kg	11.26.2020 10:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		117		117		70-130	%	11.26.2020 10:30
o-Terphenyl	99		112		111		70-130	%	11.26.2020 10:30

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143386 — Matrix: Solid — Date Prep: 11.26.2020
MB Sample Id: 7716029-1-BLK — LCS Sample Id: 7716029-1-BKS — LCSD Sample Id: 7716029-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	912	91	945	95	70-130	4	20	mg/kg	11.26.2020 10:30	
Diesel Range Organics (DRO)	<50.0	1000	925	93	881	88	70-130	5	20	mg/kg	11.26.2020 10:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		102		98		70-130	%	11.26.2020 10:30
o-Terphenyl	99		97		90		70-130	%	11.26.2020 10:30

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143383 — Matrix: Solid — Date Prep: 11.26.2020
MB Sample Id: 7716025-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	ND	mg/kg	11.26.2020 10:07	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143386 — Matrix: Solid — Date Prep: 11.26.2020
MB Sample Id: 7716029-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	ND	mg/kg	11.26.2020 10:07	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

eurofins | Environment Testing Xenco

QC Summary 678984

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143383 — Matrix: Soil — Date Prep: 11.26.2020
Parent Sample Id: 678984-001 — MS Sample Id: 678984-001 S — MSD Sample Id: 678984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1080	108	70-130	6	20	mg/kg	11.26.2020 11:38	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-130	3	20	mg/kg	11.26.2020 11:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		109		70-130	%	11.26.2020 11:38
o-Terphenyl	89		86		70-130	%	11.26.2020 11:38

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143386 — Matrix: Soil — Date Prep: 11.26.2020
Parent Sample Id: 678984-021 — MS Sample Id: 678984-021 S — MSD Sample Id: 678984-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	924	92	870	87	70-130	6	20	mg/kg	11.26.2020 11:38	
Diesel Range Organics (DRO)	<50.0	999	935	94	911	91	70-130	3	20	mg/kg	11.26.2020 11:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		93		70-130	%	11.26.2020 11:38
o-Terphenyl	85		78		70-130	%	11.26.2020 11:38

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3143691 — Matrix: Solid — Date Prep: 12.01.2020
MB Sample Id: 7716252-1-BLK — LCS Sample Id: 7716252-1-BKS — LCSD Sample Id: 7716252-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0857	86	0.110	110	70-130	25	35	mg/kg	12.01.2020 10:57	
Toluene	<0.00200	0.100	0.0893	89	0.102	102	70-130	13	35	mg/kg	12.01.2020 10:57	
Ethylbenzene	<0.00200	0.100	0.0870	87	0.0988	99	70-130	13	35	mg/kg	12.01.2020 10:57	
m,p-Xylenes	<0.00400	0.200	0.169	85	0.190	95	70-130	12	35	mg/kg	12.01.2020 10:57	
o-Xylene	<0.00200	0.100	0.0866	87	0.0959	96	70-130	10	35	mg/kg	12.01.2020 10:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		94		70-130	%	12.01.2020 10:57
4-Bromofluorobenzene	92		93		91		70-130	%	12.01.2020 10:57

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 678984

eurofins | Environment Testing Xenco

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3143699 — Matrix: Solid — Date Prep: 12.01.2020
MB Sample Id: 7716253-1-BLK — LCS Sample Id: 7716253-1-BKS — LCSD Sample Id: 7716253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.109	109	70-130	7	35	mg/kg	12.02.2020 11:11	
Toluene	<0.00200	0.100	0.0984	98	0.103	103	70-130	5	35	mg/kg	12.02.2020 11:11	
Ethylbenzene	<0.00200	0.100	0.100	100	0.107	107	70-130	7	35	mg/kg	12.02.2020 11:11	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.203	102	70-130	6	35	mg/kg	12.02.2020 11:11	
o-Xylene	<0.00200	0.100	0.0942	94	0.101	101	70-130	7	35	mg/kg	12.02.2020 11:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		91		92		70-130	%	12.02.2020 11:11
4-Bromofluorobenzene	96		92		95		70-130	%	12.02.2020 11:11

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3143691 — Matrix: Soil — Date Prep: 12.01.2020
Parent Sample Id: 678984-001 — MS Sample Id: 678984-001 S — MSD Sample Id: 678984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0387	39	0.0759	76	70-130	65	35	mg/kg	12.01.2020 11:39	XF
Toluene	<0.00200	0.0998	0.0458	46	0.0683	68	70-130	39	35	mg/kg	12.01.2020 11:39	XF
Ethylbenzene	<0.00200	0.0998	0.0257	26	0.0383	38	70-130	39	35	mg/kg	12.01.2020 11:39	XF
m,p-Xylenes	<0.00399	0.200	0.0748	37	0.0985	49	70-130	27	35	mg/kg	12.01.2020 11:39	X
o-Xylene	<0.00200	0.0998	0.0505	51	0.0633	63	70-130	22	35	mg/kg	12.01.2020 11:39	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	76		91		70-130	%	12.01.2020 11:39
4-Bromofluorobenzene	105		98		70-130	%	12.01.2020 11:39

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3143699 — Matrix: Soil — Date Prep: 12.01.2020
Parent Sample Id: 678984-021 — MS Sample Id: 678984-021 S — MSD Sample Id: 678984-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0353	35	0.0918	92	70-130	89	35	mg/kg	12.01.2020 22:51	XF
Toluene	<0.00200	0.100	0.0278	28	0.0897	90	70-130	105	35	mg/kg	12.01.2020 22:51	XF
Ethylbenzene	<0.00200	0.100	0.0251	25	0.0888	89	70-130	112	35	mg/kg	12.01.2020 22:51	XF
m,p-Xylenes	<0.00400	0.200	0.0474	24	0.171	86	70-130	113	35	mg/kg	12.01.2020 22:51	XF
o-Xylene	<0.00200	0.100	0.0312	31	0.0866	87	70-130	94	35	mg/kg	12.01.2020 22:51	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		89		70-130	%	12.01.2020 22:51
4-Bromofluorobenzene	67	**	97		70-130	%	12.01.2020 22:51

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Chain of Custody

Work Order No: 6708984

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

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	Mango BRM State 1H	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	Lea County, New Mexico	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or pat# or LOE+CC#		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.5/6.0	Thermometer ID	IR8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.5
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
BH-1 @ 6"		11/19/2020	820		1	X	X	X
NW-1 @ 6"		11/19/2020	825		1	X	X	X
SW-1 @ 6"		11/19/2020	827		1	X	X	X
EW-1 @ 6"		11/19/2020	832		1	X	X	X
BH-2 @ 6"		11/19/2020	920		1	X	X	X
NW-2 @ 6"		11/19/2020	925		1	X	X	X
SW-2 @ 6"		11/19/2020	928		1	X	X	X
EW-2 @ 6"		11/19/2020	930		1	X	X	X
WW-2 @ 6"		11/19/2020	935		1	X	X	X
BH-3 @ 6"		11/19/2020	1000		1	X	X	X

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-24-20 1631	2		11/24/20 1631
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Chain of Custody

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

Work Order No: 6789984

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	*Mango BRM State 1H*	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	*Lea County, New Mexico*	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or paf# or LOE +CC#		

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
NW-3 @ 3"		11/19/2020	1005		1	X	X	X
SW-3 @ 6"		11/19/2020	1010		1	X	X	X
BH-4 @ 6"		11/24/2020	~~1100~~ 1115 WD		1	X	X	X
BH-5 @ 6"		11/19/2020	1035		1	X	X	X
BH-6 @ 2'		11/19/2020	1040		1	X	X	X
SW-6 @ 1'		11/19/2020	1045		1	X	X	X
BH-7 @ 6"		11/19/2020	1040		1	X	X	X
BH-8 @ 6"		11/19/2020	1045		1	X	X	X
BH-9 @ 6"		11/19/2020	1045		1	X	X	X
BH-10 @ 6"		11/19/2020	1048		1	X	X	X

ANALYSIS REQUEST

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-24-20	2		
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Chain of Custody

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

Work Order No: 6789984

www.xenco.com Page 3 of 4

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	*Mango BRM State 1H*	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	*Lea County, New Mexico*	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or pa# or LOE +CO#		

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
BH-11 @ 6"		11/19/2020	1051		1	X	X	X
BH-12 @ 6"		11/19/2020	1054		1	X	X	X
BH-13 @ 6"		11/19/2020	1058		1	X	X	X
BH-14 @ 6"		11/19/2020	1100		1	X	X	X
BH-15 @ 6"		11/19/2020	1102		1	X	X	X
BH-16 @ 6"		11/19/2020	1103		1	X	X	X
BH-17 @ 6"		11/19/2020	1120		1	X	X	X
BH-18 @ 6"		11/19/2020	1130		1	X	X	X
BH-19 @ 6"		11/19/2020	1140		1	X	X	X
BH-20 @ 6"		11/19/2020	1301		1	X	X	X

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-24-20	2		
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Chain of Custody

Work Order No: 6788984

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

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	Mango BRM State 1H	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	Lea County, New Mexico	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or daf# or LOE +CC#		

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

Preservative Codes

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

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300	Sample Comments
BH-21 @ 6"		11/19/2020	1310		1	X	X	X	
BH-22 @ 6"		11/19/2020	1313		1	X	X	X	
BH-23 @ 6"		11/19/2020	1318		1	X	X	X	
BH-24 @ 6"		11/19/2020	1324		1	X	X	X	

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-24-20	2		
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 11.24.2020 04.37.00 PM

Work Order #: 678984

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 11.24.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 11.25.2020

Jessica Kramer

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: 681035

www.xenco.com Page 1 of 1

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	Mango BRM State 1H	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	Lea County, New Mexico	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or part# or LOE +CC#		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice: (Yes) No	
Temperature (°C):	1.0 | 1.5	Thermometer ID	IR-8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	.5
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
BH-8 @ 1'	S	12/10/2020	1000		1	X		
BH-9 @ 1'	S	12/10/2020	1015		1	X		
NW-8 @ 1'	S	12/10/2020	1020		1	X	X	X
EW-8 @ 1'	S	12/10/2020	1025		1	X	X	X
SEW-8 @ 1'	S	12/10/2020	1030		1	X	X	X
SW-8 @ 1'	S	12/10/2020	1035		1	X	X	X

ANALYSIS REQUEST

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12-15-20 8:00	2		12.15.20 8:30
3			4		
5			6		

Revised Date101419 Rev. 2019.1

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

Chain of Custody

Work Order No: 681036

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200 Email:	Matt@etechenv.com wesley@etechenv.com	

Work Order Comments

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

Project Name:	Mango BRM State 1H	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	Lea County, New Mexico	Rush: ☐	
Sampler's Name:	Wesley Desilets for Beto	Due Date:	
PO #:	AFE# or Quote # or TOE #CC#		

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	1.0 | 1.5	Thermometer ID	IR-8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	.5
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
WW-2 @ 6"	S	12/8/2020	745		1			X
SW-6 @ 1'	S	12/8/2020	850		1	X		

ANALYSIS REQUEST

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12.15.20 800	2			12.15.20 8:30
3				4			
5				6			

Revised Date101419 Rev. 2019.1

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: 683108

www.xenco.com Page _____ of _____

Project Manager:	Matt Green	Bill to: (if different)	
Company Name:	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial
Address:	PO Box 62228	Address:	
City, State ZIP:	Midland, Texas 79711	City, State ZIP:	
Phone:	432-563-2200	Email:	Matt@etechenv.com wesley@etechenv.com

Work Order Comments

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

Project Name:	*Mango BRM State 1H*	Turn Around	
Project Number:	12969	CONTRACT ☐	
Project Location	*Lea County, New Mexico*	Rush: ☐	
Sampler's Name:	Wesley Desilets	Due Date:	
PO #:	AFE# or Bill# or COE-CC#		

SAMPLE RECEIPT				
Temperature (°C):	11.8	Temp Blank: Yes No	Wet Ice: (Yes) No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-.5	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	TPH 8015M	BTEX 8021B	Chlorides E300
WW-2 @ 1.5'		12/29/2020	815		1			X

Preservative Codes

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

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

Sample Comments

NORM TAT circle one : 7 day, **5 day**, Rush 3 day

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/31 11:25	2			
3				4			
5				6			

Revised Date101419 Rev. 2019.1

APPENDIX C

Release Notification and Corrective Action Form (Form C-141)

Closure Request and Remediation Summary Report
Mango BRM State 1H

eTECH Environmental & Safety Solutions, Inc.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2024540841
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Centennial Resource Production, Inc	OGRID: 372165
Contact Name: Jamon Hohensee	Contact Telephone: 432-241-4283
Contact email: jamon.hohensee@cdevinc.com	Incident # *(assigned by OCD)*
Contact mailing address: 500 W. Illinois Ave, Suite 500, Midland Texas 79705	

Location of Release Source

Latitude 32.55063 Longitude -103.44586
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mango BRM State 1H	Site Type: Production Facility
Date Release Discovered: 8/24/20	API# 30025405170000

Unit Letter	Section	Township	Range	County
C	27	20S	35E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

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

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

Cause of Release
Overpressure of packing in the stuffing box on pump jack. There were no free-standing fluids to be recovered. Source of spill was stopped, and site was secured. Site will be remediated to state standards and a closure report will be submitted to the OCD. Surface area, porosity, and saturation was used to determine the volume released.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2024540841
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

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

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

Printed Name: Jamon Hohensee Title: Sr. Environmental Analyst

Signature: Jamon Hohensee Date: 8-31-20

email: jamon.hohensee@cdevinc.com Telephone: 432-241-4283

OCD Only

Received by: Ramona Marcus Date: 9/1/2020

State of New Mexico
Oil Conservation Division

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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 20982

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
CENTENNIAL RESOURCE PRODUCTION	1001 17th Street, Suite 1800	Denver, CO80202	372165	20982	C-141

OCD Reviewer	Condition
chensley	None