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: _5-3-23_____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 05/03/2023

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: _5-3-23_____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 05/03/2023

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: Ashley Maxwell Date: 05/03/2023

Printed Name: Ashley Maxwell Title: Environmental Specialist

REMEDIATION SUMMARY AND

SOIL CLOSURE REQUEST

Chevron Corporation
Quail Queen Unit #002
Lea County, New Mexico
Unit Letter ñJò, Section 11, Township 19 South, Range 34 East
Latitude 32.669183º North, Longitude 103.529124º West
NMOCD Reference #: nOY1801035692

Prepared For:

Chevron Corporation
6301 Deauville Blvd.
Midland, TX 79706

Prepared By:

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

April 27, 2023

Blake Estep
Project Manager

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INTRODUCTION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Chevron Corporation, has prepared this *Remediation Summary and Soil Closure Request* for the release site known as Quail Queen Unit #002 henceforth, "Release Site". The legal description of the Release Site is Unit Letter "J", Section 11, Township 19 South, Range 34 East, in Lea County, New Mexico. The subject release is located on Bureau of Land Management property. The Release Site GPS coordinates are 32.669183º North and 103.529124º West. A "Topographic Map" is provided as Figure 1.

On December 27, 2017, Chevron Corporation discovered a release at the Quail Queen #002 location. A flowline ruptured, causing the release of approximately thirty-five (35) barrels of produced water and one (1) barrel of crude oil. The release was limited to the caliche production pad within the secondary containment of the production equipment. A copy of the New Mexico Oil Conservation Division (NMOCD) Release Notification and Corrective Action (Form C-141) is provided as Appendix A.

Photographic documentation for the Release Site is provided as Appendix C.

NMOCD SITE CLASSIFICATION

Searches of the groundwater databases maintained by United States Geological Survey (USGS) and New Mexico Office of the State Engineer (NMOSE) identified that there are no freshwater wells within a half mile radius of the Release Site. The closest freshwater well (USGS Well # 324016103301701) is approximately 1.39 miles to the east-northeast. The USGS database indicated groundwater should be encountered at approximately seventy-four (74) feet below ground surface (bgs). In addition, the NMOSE dastabase identifies two (2) wells located less than a mile from the Release Site. The two (2) water wells (L04723 & L04059) are located approximately 0.98 miles northwest and 0.92 miles northeast, with groundwater encountered at 123 feet bgs and 60 feet bgs, respectively.

Based on a search of the NMOCD Imaging System, on October 18, 2005, Environmental Plus, Inc., conducted a site characterization assessment for NMOCD incident (#nPAC0606153274). The assessment consisted of two (2) soil borings to approximate depths of forty-five (45) and sixty-five (65) feet bgs. No ground water was encountered in either of the soil borings (refer to Appendix B).

No surface water or water wells were observed within one thousand (1,000) feet of the Release Site.

The Release Site is considered to be in an area of low potential for karst occurrence. An "Aerial Proximity Map and USGS Well Proximity Map" are provided as Figure 2 and Figure 3, respectively. Depth to groundwater information is provided in Appendix B.

Based on the NMOCD site classification system, the following soil remediation levels were assigned to the release site as a result of this criteria:

- Benzene – 10 mg/kg
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) – 50 mg/kg
- Gas Range Organics + Diesel Range Organics (GRO+DRO) – 1,000 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 2,500 mg/kg
- Chloride – 10,000 mg/kg

INITIAL SITE ASSESSMENT

On April 6, 2022, Etech conducted a sampling event at the Release Site to assess the impact from the release. Two (2) soil auger holes were installed with samples collected at six (6) inch and fifteen (15) inch intervals bgs, at which depth refusal was encountered (refer to Figure 3). Samples were submitted to Xenco Eurofins to be analyzed for TPH, chloride, and BTEX concentrations. A "Site Sample Location Map" is provided as Figure 3.

Laboratory results indicated elevated DRO concentrations in the area associated with Auger Hole 1, all other areas and constituents were below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standards (refer to Table 1).

Laboratory analytical reports are provided in Appendix D.

DELINEATION, REMEDIATION, AND SOIL SAMPLING ACTIVITES

On December 1 & 2, 2022, Etech conducted delineation and remediation activities at the release site utilizing a mini-excavator, backhoe, and manual means. Based on field chloride testing, the site was excavated to dimensions of 22 feet in width, 26 feet in length, and a depth of 12 inches bgs. Impacted soils were stockpiled on plastic at the site awaiting final disposition to an approved NMOCD surface waste facility.

On December 1, 2022, three (3) composite bottom hole (Bottom Hole 1 through Bottom Hole 3) and four (4) composite wall (North Sidewall, East Sidewall, South Sidewall, and West Sidewall) samples were collected from the excavated area, representing no more than 200 square feet. Five-point composite confirmation soil samples were labeled, placed into a laboratory provided container, stored on ice, and transported under proper chain-of-custody documentation to Permian Basin Environmental Laboratory (PBELAB) in Midland, Texas.

The soil samples were analyzed for TPH utilizing Method SW 846-8015M, BTEX utilizing Method SW 846-8021B, and chloride utilizing EPA Method 300.0. Laboratory analytical results indicated an elevated TPH concentration in soil samples Bottom Hole 3 and East Sidewall.

On January 3, 2023, Etech further excavated the areas exceeding NMOCD standards for TPH concentrations. Impacted soils were stockpiled on plastic at the site awaiting final disposition to an approved NMOCD facility.

On January 3, 2023, one (1) composite bottom hole (Bottom Hole 3A) and one (1) composite wall (East Sidewall A) samples were collected from the excavated area and submitted to PBELAB for confirmatory analysis of TPH, BTEX, and chloride utilizing the laboratory analytical methods previously described. Laboratory analytical results indicated TPH, BTEX, and chloride concentrations were below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standards in each of the submitted soil samples.

See Figure 4 Site Sample Location Map for sample locations. See Appendix C for photos depicting remediation and backfill activities. See Table 1 Concentrations of Benzene, BTEX, TPH, and Chloride in Soil for sampling results and Appendix D for laboratory analytical reports.

SOIL DISPOSAL AND BACKFILL ACTIVITIES

On February 16, 2023, Etech transported the impacted soil to Lea Land disposal facility (NMOCD permit #WM-01-035) in Lea County, New Mexico. Etech transported like-sourced, non-impacted material to the Release Site to be used as backfill material. Utilizing a backhoe, the excavation was backfilled, compacted, and contoured to fit the needs of the facility.

SITE CLOSURE REQUEST

Laboratory analytical results indicate BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standards in each of the submitted soil samples. Etech, on behalf of Chevron Corporation, respectfully requests the NMOCD grant site closure to the Quail Queen Unit #002 (NMOCD Incident ID: nOY1801035692).

LIMITATIONS

Etech has prepared this *Remediation Summary and Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and 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 Chevron Corporation. 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 Chevron Corporation.

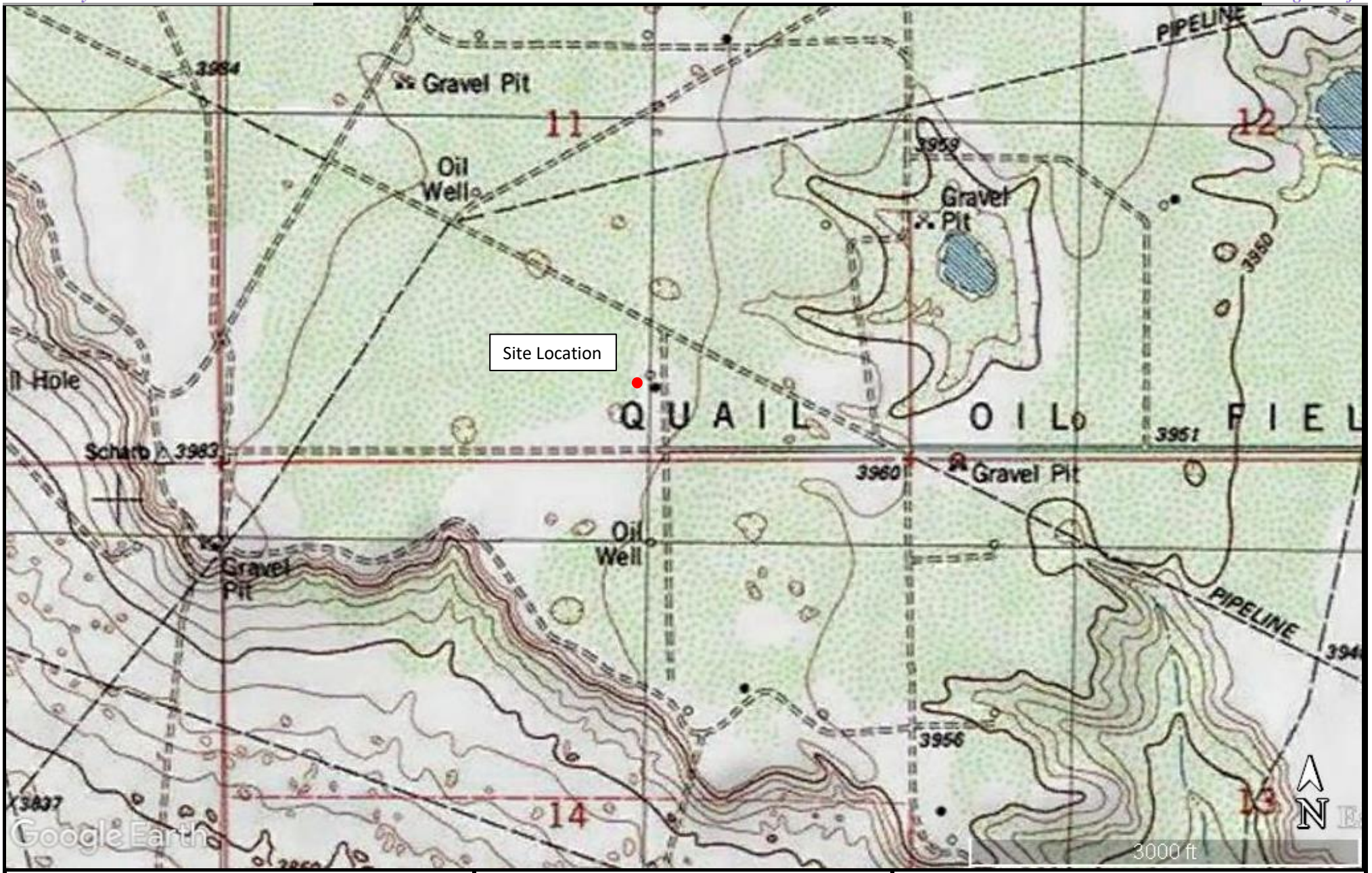
DISTRIBUTION

Copy 1: New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
506 West Texas
Artesia, New Mexico 88210

Copy 2: Amy Barnhill
Chevron Corporation
6301 Deauville Blvd.
Midland, Texas 79706

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

FIGURES



Legend:

- Site Location

Figure 1
Site Location Topographic Map
Chevron Corporation
Quail Queen Unit #002
GPS: 32.66919, -103.52912
Lea County

eTECH Environmental & Safety Solutions, Inc.

Date: 4/29/22

Legend:

- Site Location
- Fresh Water Well
- 100-Year Floodplain
- High/Critical Karst
- Non-Industrial Building
- Subsurface Mine
- BH #2 (#nPAC0606153274)

Figure 2

Aerial Proximity Map

#REF!

Quail Queen Unit #002

GPS: 32.66919, -103.52912

Lea County

eTECH Environmental & Safety Solutions, Inc.

Date: 4/27/23

Legend:

- Site Location
- USGS Water Well

Figure 3

USGS Well Proximity Map

Chevron Corporation

Quail Queen Unit #002

GPS: 32.66919, -103.52912

Lea County

eTECH Environmental & Safety Solutions, Inc.

Date: 4/29/22

Environmental & Safety Solutions, Inc.

Site Sample Location Map Figure 1	Project Name:	Quail Queen #002	Project No.:	15661
	Date Sampled:	December 1, 2022 & January 3, 2023	GPS:	32.669183, -103.529124

TABLES

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CHEVRON CORPORATION

Quail Queen Unit #002

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	DEPTH	SOIL STATUS	SAMPLE DATE	METHODS: SW 846-8021B							METHOD: SW 8015M					E 300.0
				BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	GRO C_6-C_{12}	DRO C_{12}-C_{28}	GRO+DRO C_6-C_{28}	ORO C_{28}-C_{35}	TPH C_6-C_{35}	CHLORIDE
NMOCD Closure Criteria				10 mg/kg						50 mg/kg			1,000 mg/kg		2,500 mg/kg	10,000 mg/kg
Auger Hole 1	0-6"	Excavated	4/6/2022	ND	ND	ND	ND	ND	ND	ND	ND	1,950	**1,950**	ND	1,950	83.4
Auger Hole 1	12-15"	Excavated	4/6/2022	ND	ND	ND	ND	ND	ND	ND	ND	1,450	**1,450**	ND	1,450	305
Auger Hole 2	0-6"	Excavated	4/6/2022	ND	ND	ND	ND	ND	ND	ND	ND	953	953	ND	953	1,190
Auger Hole 2	12-15"	Excavated	4/6/2022	ND	ND	0.00298	0.0102	0.0138	0.0240	0.0270	ND	644	644	ND	644	2,630
Bottom Hole 1	12"	In-Situ	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.2
Bottom Hole 2	12"	In-Situ	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	597	597	ND	597	2,220
Bottom Hole 3	12"	Excavated	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	3,870	**3,870**	1,540	**5,410**	312
Bottom Hole 3A	15"	In-Situ	1/3/2023	NA	NA	NA	NA	NA	NA	NA	ND	846	846	297	1,140	NA
North Sidewall	6"	In-Situ	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	142
East Sidewall	6"	Excavated	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	1,160	**1,160**	523	1,680	324
East Sidewall A	6"	In-Situ	1/3/2023	NA	NA	NA	NA	NA	NA	NA	ND	348	348	142	490	NA
South Sidewall	6"	In-Situ	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	335	335	155	490	668
West Sidewall	6"	In-Situ	12/1/2022	ND	ND	ND	ND	ND	ND	ND	ND	650	650	286	937	26.7

Bold and Yellow Highlighted indicates Analyte Above NMOCD Closure Criteria

ND - Analyte Not Detected at or above the laboratory reporting limit

APPENDICES

Appendix A – Release Notification and Corrective Action (Form C-141)

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

Initial only

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company. Chevron	Contact: Josepha DeLeon
Address: 6301 Deauville Blvd., Midland, TX 79706	Telephone No.: office: 575-263-0424; cell: 432-425-1528
Facility Name: Quail Queen Unit No. 002	Facility Type: Oil Well

Surface Owner:	Mineral Owner: State of New Mexico	API No.: 30-025-25868

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	11	19S	34E	1980’	South	1980’	East	Lea

Latitude 32.6730576 **Longitude** -103.5289078

NATURE OF RELEASE

Type of Release: Spill	Volume of Release: .02 barrels oil 34.2 barrels produced water	Volume Recovered: .02 barrels oil 34 barrels produced water
Source of Release: Flow Line bottom side of heater treater	Date and Hour of Occurrence: 12/27/2017; 08:00 AM	Date and Hour of Discovery: 12/27/2017; 08:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD - Maxey Brown, Olivia Yu BLM – Jim Amos, Shelly Tucker (Confirmed Not Applicable)	
By Whom? Josepha DeLeon	Date and Hour: 12/28/2017; 09:52 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

RECEIVED
By Olivia Yu at 9:51 am, Jan 10, 2018

Describe Cause of Problem and Remedial Action Taken.*

A pinhole from flow line. The well was shut in to stop the leak and repair the flow line.

Describe Area Affected and Cleanup Action Taken.*

All fluid was contained in secondary containment and recovered. Shut in well to repair pinhole on flow line.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: JDeLeon	OIL CONSERVATION DIVISION
Printed Name: Josepha DeLeon	Approved by Environmental Specialist: JY
Title: Environmental Compliance Specialist	Approval Date: 1/10/2018 Expiration Date:
E-mail Address: jdxd@chevron.com	Conditions of Approval: see attached directive — Attached ☑
Date: 01/04/2018 Phone: 432-425-1528	

* Attach Additional Sheets If Necessary

1RP-4923 nOY1801035692 pOY1801036352

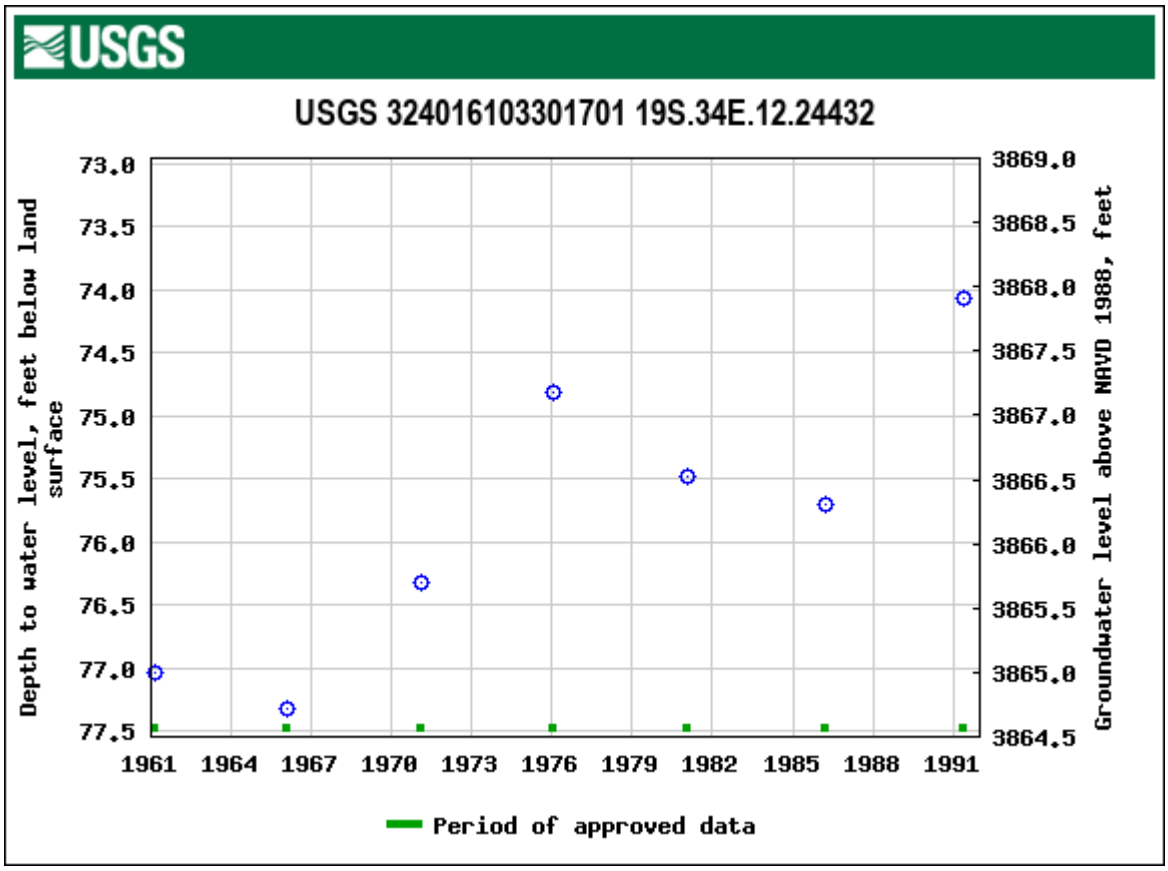
Appendix B – Depth to Groundwater Information

New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 637920.42 **Northing (Y):** 3615569.59 **Radius:** 804


USGS
USGS 324016103301701 19S.34E.12.24432
Depth to water level, feet below land surface
73.0
73.5
74.0
74.5
75.0
75.5
76.0
76.5
77.0
77.5
Groundwater level above NAVD 1988, feet
3869.0
3868.5
3868.0
3867.5
3867.0
3866.5
3866.0
3865.5
3865.0
3864.5
1961
1964
1967
1970
1973
1976
1979
1982
1985
1988
1991
Period of approved data

ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

WTR 76
Sidetrack for 1000 CLEAN UP

6 December 2005

Mr. Larry Johnson
Environmental Engineer Specialist
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

RE: Site Characterization
Chesapeake Energy-Quail State SWD (Ref. #160030)
UL-O of Section 11, T19S, R34E

Dear Mr. Johnson:

On September 17, 2005, approximately 115 barrels (bbls) of fluid were released onto the ground surface after lightening struck a 500 bbl fiberglass produced water tank. Approximately 55 bbls of production fluid were recovered by a vacuum truck with the remaining fluid seeping into the soil. Chesapeake Energy Corporation (Chesapeake) retained Environmental Plus, Inc. (EPI) in September 2005 to delineate the vertical extent of impacted soil at the site. This letter report documents the results of the delineation activities and recommends remedial procedures for cleanup of the impacted soil.

Site Background

The site is located in the SW¼ of the SE¼ of Section 11, Township 19 South, Range 34 East at an elevation of approximately 3,792 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by the State of New Mexico. A search for area water wells was completed utilizing the *New Mexico Office of the State Engineers* website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000- foot radius of the site (reference *Figure 2*). However, there are three (3) water supply wells located within a 1.0- mile radius of the release area. Groundwater level data indicates an average water depth of approximately 76 feet below ground surface in the area (reference *Table 1*). Therefore, based on available information, it was determined the distance between the contamination and groundwater is approximately 70 feet. Utilizing this information, the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are determined as follows:

API# 30025255360000
incident - nPAC0606153274
application - pPAC0606153450

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	1,000 parts per million

* Chloride residuals may not be capable of impacting local groundwater above NMWQCC Standard of 250 mg/Kg

P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 ••• FAX 505•394•2601

ENVIRONMENTAL PLUS, INC.

Field Work

On September 19, 2005, EPI performed an assessment of the surface area damage caused by the spill. The total spill area was surveyed and classified as a primary release area consisting of approximately 16,500 square feet (sf).

On October 18, 2005, EPI mobilized at the site to direct the placement and depth of two (2) soil borings within the perimeter of the release area to delineate the vertical extent of production fluid impacted soil (reference *Figure 4*). During the advancement of the soil borings, samples were collected at 5-foot intervals with a portion of the sample placed in a laboratory provided container and the remainder placed in a self sealing polyethylene bag. The samples in the laboratory provided containers were immediately placed on ice for transport to Environmental Lab of Texas in Odessa, Texas, for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO) and chlorides. The portions of the samples in the self-sealing polyethylene bags were placed in a heated environment (i.e., cab of a truck) to allow the volatilization of organic vapors. After the samples had been allowed to equilibrate to ≈70° F, they were analyzed for the presence of organic vapors utilizing a MiniRae® photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp. In addition, the samples were analyzed in the field for the presence of chlorides using a LaMotte Chloride Test Kit.

The soil borings were advanced to a depth of 45 feet (BH-1) and 65 feet (BH-2) below ground surface (bgs) with samples being collected at 2-feet and 5-feet depths initially then at 5-foot intervals to total depth (TD) of the soil borings. Field analyses of the samples collected during the advancement of soil boring BH-1 indicated the presence of organic vapor concentrations ranging from 1.5 parts per million (ppm) at 20 feet bgs to 4.4 ppm at 2 feet bgs. Field analyses for chloride indicated concentrations ranging from 240 milligrams per kilogram (mg/Kg) at 45 feet bgs to 3,540 mg/Kg at 2 feet bgs. Field analyses of the samples collected during the advancement of soil boring BH-2 indicated the presence of organic vapor concentrations ranging from 1.1 ppm at 20 feet bgs to 3.0 ppm at 15 feet bgs. Field analyses for chlorides indicated concentrations ranging from 240 mg/Kg at 65 feet bgs to 3,120 mg/Kg at 2 feet bgs (reference *Table 1*).

During the advancement of the soil boring, the lithology was defined as caliche from ground surface to a depth of approximately 20 feet bgs, underlain by light tan sand from a depth of approximately 20 feet bgs to TD of each wells respective bore hole (reference *Attachment II*).

Analytical Data

Analytical results for soil samples collected from BH-1 at 2-feet bgs indicated TPH concentrations of 18.7 mg/Kg while benzene and BTEX were not detected at or above laboratory method detection limits (MDL). Samples collected at 5-feet bgs showed traces of toluene (0.0259mg/ Kg), ethylene benzene (0.0657 mg/Kg), m,p-xylenes (0.2680 mg/Kg), o-xylene (0.0890 mf/Kg) and BTEX (0.4486 mg/Kg) while TPH was not detected at or above laboratory MDL (reference *Table 1*).

Analytical results from samples collected from BH-2 at 2-feet and 5-feet bgs indicated benzene, BTEX and TPH were not detected at or above laboratory MDL (reference *Table 1*).

Chloride concentrations for the samples obtained during the advancement of soil boring BH-1 were reported ranging from 3,710 mg/Kg at 2-feet bgs to 214 mg/Kg at 15-feet bgs. Chloride concentrations for the samples obtained during the advancement of soil boring for BH-2 were reported ranging from 1,862 mg/Kg at 2-feet bgs to 172 mg/Kg at 15- feet. However, the concentrations from ground level to 5-feet bgs are above the New Mexico Water Quality Control Commission's (NMWQCC) standards for groundwater of 250 mg/Kg. Chloride concentrations from 5-feet bgs to total depth of well borings are below the 250 mg/Kg groundwater standards for both BH-1 and BH-2 (reference Table 1).

Summary

Analytical results for the samples collected during the advancement of soil borings for BH-1 indicate soil is slightly impacted with benzene, BTEX and TPH to a depth of approximately 5-feet bgs while samples for BH-2 indicate no impacted soil. However, the soil from BH-1 and BH-2 is impacted with chlorides which exceed NMOCD Remedial Goals as set forth in the Site Background section and could possibly impact groundwater above New Mexico Water Quality Control Commission's (NMWQCC) standards of 250 mg/Kg groundwater standards.

Based on field and analytical analysis, soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 5-feet bgs within the confines of the release area (reference *Figure 3*). The release area is approximately 16,500 square feet in size, resulting in approximately 3,060 cubic yards of soil (*in situ*) impacted above NMOCD remedial guidelines for this site. It is unlikely that soil impacted above the NMOCD remedial guidelines for this site extends completely to 5 feet bgs across the entire release area and the actual volume of impacted soil may be less than 3,060 cubic yards.

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at dduncan@envplus.net. Upon your approval, EPI will initiate the next phase of site remediation. All official correspondence should be submitted to Mr. Bradley Blevins at:

Mr. Bradley Blevins
Chesapeake Energy Corporation
P.O. Box 190
Hobbs, NM 88240-0190

(505) 391-1462, ext. 6224
bblevins@chkenergy.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer

cc: Bradley Blevins, Chesapeake Energy-Hobbs, NM
Curtis Blake, Chesapeake Energy-Hobbs, NM
Jace Marshall, Chesapeake Energy-Oklahoma City, OK

Log Of Test Borings

(NOTE - Page 1 of 3)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160030

Project Name: Chesapeake Quail State SWD

Location: UL-O, Section 11, Township 19 South, Range 34 East

Boring Number: BH-2 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs

Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1443				2.6		0	Rock, Top Soil, Black Clay
						2	
						5	
1447				2.3			Caliche
						10	
1500				2.2			Caliche
						15	
1510				3.0			Caliche
						20	
1518				1.1			Caliche
						25	
1523				1.9			Light Tan Sugar Sand
						30	
1526				2.1			Light Tan Sugar Sand

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: JR

Log Of Test Borings

(NOTE - Page 2 of 3)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160030
Project Name: Chesapeake Quail State SWD
Location: UL-D, Section 11, Township 19 South, Range 34 East
Boring Number: BH-2 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs
Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						35	
1544				1.4			Light Tan Sugar Sand Pebbles
						40	
1547				1.7			Light Tan Sugar Sand Pebbles
						45	
1600				1.5			Light Tan Sugar Sand
						50	
1605				.9			Redish Tan Sugar Sand
						55	
1610				.2			Redish Tan Sugar Sand
						60	
1622				.3			Redish Tan Sugar Sand

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID
Backfill Method: Bentonite
Field Representative: JR

Log Of Test Borings

(NOTE - Page 3 of 3)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160030
Project Name: Chesapeake Quail State SWD
Location: UL-D, Section 11, Township 19 South, Range 34 East
Boring Number: BH-2 Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs
Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						65	
1630				.2			Redish Tan Sugar Sand End of Boring at 65.0'
						70	
						75	
						80	
						85	
						90	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID
Backfill Method: Bentonite
Field Representative: JR

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 04059	4	1		12	19S	34E	639146	3616412*

Driller License: 46 **Driller Company:** ABBOTT BROTHERS COMPANY

Driller Name:

Drill Start Date:	01/29/1959	**Drill Finish Date:**	01/29/1959	**Plug Date:**	06/05/1959
Log File Date:	02/05/1959	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	125 feet	**Depth Water:**	60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	60	125	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	70	125

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

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 04723	1	1	1	11	19S	34E	637026	3616880*

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

Driller License: 137 **Driller Company:** ROBERTS, GRADY

Driller Name:

Drill Start Date: 09/22/1961 **Drill Finish Date:** 09/24/1961 **Plug Date:** 10/30/1961

Log File Date: 10/16/1961 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 6.63 **Depth Well:** 145 feet **Depth Water:** 123 feet

Water Bearing Stratifications:	Top	Bottom	Description
	130	139	Sandstone/Gravel/Conglomerate
	139	144	Sandstone/Gravel/Conglomerate
	144	145	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	120	145

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

Appendix C – Photographic Documentation

Project Name: *Quail Queen Unit #002*
Project No: *15661*

Photographic Documentation

Photo No: **1.**	
Direction Taken: West	
Description: View during the initial site assessment.	

Photo No: **2.**	
Direction Taken: Northeast	
Description: View during the initial site assessment.	

Project Name: *Quail Queen Unit #002*
Project No: *15661*

Photographic Documentation

Photo No: **3.**	
Direction Taken: Southeast	
Description: View during the initial site assessment.	

Photo No: **4.**	
Direction Taken: South	
Description: View during excavation activities.	

Project Name: *Quail Queen Unit #002*
Project No: *15661*

Photographic Documentation

Photo No: **5.**	
Direction Taken: South-Southwest	
Description: View during excavation activities.	

Photo No: **6.**	
Direction Taken: Southeast	
Description: View during excavation activities.	

Project Name: *Quail Queen Unit #002*
Project No: *15661*

Photographic Documentation

Photo No: **7.**	
Direction Taken: Northwest	
Description: View following remediation activities.	

Photo No: **8.**	
Direction Taken: Southeast	
Description: View following remediation activities.	

Appendix D – Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-13745-1
Laboratory Sample Delivery Group: 15661
Client Project/Site: Quail Queen Unit #002

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

Attn: Brandon Wilson

JKramer

Authorized for release by:
4/20/2022 7:34:04 PM

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

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

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

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Laboratory Job ID: 880-13745-1
SDG: 15661

Table of Contents

Definitions/Glossary

Client: Etech Environmental & Safety Solutions Job ID: 880-13745-1
Project/Site: Quail Queen Unit #002 SDG: 15661

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Job ID: 880-13745-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-13745-1

Receipt
The samples were received on 4/14/2022 4:29 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23778 and analytical batch 880-23767 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-13745-1
Matrix: Solid
Date Collected: 04/06/22 12:00
Date Received: 04/14/22 16:29
Sample Depth: 0 - 6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F2 F1	0.00202		mg/Kg		04/19/22 09:58	04/19/22 12:32	1
Toluene	<0.00202	U F2 F1	0.00202		mg/Kg		04/19/22 09:58	04/19/22 12:32	1
Ethylbenzene	<0.00202	U F2 F1	0.00202		mg/Kg		04/19/22 09:58	04/19/22 12:32	1
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.00403		mg/Kg		04/19/22 09:58	04/19/22 12:32	1
o-Xylene	<0.00202	U F1	0.00202		mg/Kg		04/19/22 09:58	04/19/22 12:32	1
Xylenes, Total	<0.00403	U F1	0.00403		mg/Kg		04/19/22 09:58	04/19/22 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:32*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			04/19/22 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1950**		49.9		mg/Kg			04/18/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:14	1
Diesel Range Organics (Over C10-C28)	**1950**		49.9		mg/Kg		04/15/22 08:43	04/16/22 05:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:14*	*1*
o-Terphenyl	*90*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.4**		4.95		mg/Kg			04/19/22 12:42	1

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-13745-2
Matrix: Solid
Date Collected: 04/06/22 12:02
Date Received: 04/14/22 16:29
Sample Depth: 12 - 15"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/19/22 09:58	04/19/22 12:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/19/22 09:58	04/19/22 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:53*	*1*

Eurofins Midland

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-13745-2
Matrix: Solid

Date Collected: 04/06/22 12:02
Date Received: 04/14/22 16:29
Sample Depth: 12 - 15"

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/19/22 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1450**		49.9		mg/Kg			04/18/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:35	1
Diesel Range Organics (Over C10-C28)	**1450**		49.9		mg/Kg		04/15/22 08:43	04/16/22 05:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:35*	*1*
o-Terphenyl	*91*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**305**		4.95		mg/Kg			04/19/22 12:48	1

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-13745-3
Matrix: Solid

Date Collected: 04/06/22 12:04
Date Received: 04/14/22 16:29
Sample Depth: 0 - 6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/19/22 09:58	04/19/22 13:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/19/22 09:58	04/19/22 13:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/19/22 09:58	04/19/22 13:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/19/22 09:58	04/19/22 13:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/19/22 09:58	04/19/22 13:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/19/22 09:58	04/19/22 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/19/22 09:58*	*04/19/22 13:13*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/19/22 09:58*	*04/19/22 13:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/19/22 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**953**		49.9		mg/Kg			04/18/22 12:12	1

Eurofins Midland

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-13745-3
Matrix: Solid
Date Collected: 04/06/22 12:04
Date Received: 04/14/22 16:29
Sample Depth: 0 - 6"

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:56	1
Diesel Range Organics (Over C10-C28)	**953**		49.9		mg/Kg		04/15/22 08:43	04/16/22 05:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/16/22 05:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:56*	*1*
o-Terphenyl	*87*		*70 - 130*	*04/15/22 08:43*	*04/16/22 05:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1190**		24.9		mg/Kg			04/19/22 13:39	5

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-13745-4
Matrix: Solid
Date Collected: 04/06/22 12:06
Date Received: 04/14/22 16:29
Sample Depth: 12 - 15"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 13:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 13:34	1
Ethylbenzene	**0.00298**		0.00200		mg/Kg		04/19/22 09:58	04/19/22 13:34	1
m-Xylene & p-Xylene	**0.0102**		0.00399		mg/Kg		04/19/22 09:58	04/19/22 13:34	1
o-Xylene	**0.0138**		0.00200		mg/Kg		04/19/22 09:58	04/19/22 13:34	1
Xylenes, Total	**0.0240**		0.00399		mg/Kg		04/19/22 09:58	04/19/22 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*04/19/22 09:58*	*04/19/22 13:34*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*04/19/22 09:58*	*04/19/22 13:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0270**		0.00399		mg/Kg			04/19/22 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**644**		49.9		mg/Kg			04/18/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/15/22 17:03	1
Diesel Range Organics (Over C10-C28)	**644**		49.9		mg/Kg		04/15/22 08:43	04/15/22 17:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/15/22 08:43	04/15/22 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*04/15/22 08:43*	*04/15/22 17:03*	*1*
o-Terphenyl	*113*		*70 - 130*	*04/15/22 08:43*	*04/15/22 17:03*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 880-13745-1
Project/Site: Quail Queen Unit #002
SDG: 15661

Client Sample ID: Auger Hole 2
Lab Sample ID: 880-13745-4

Date Collected: 04/06/22 12:06
Matrix: Solid
Date Received: 04/14/22 16:29
Sample Depth: 12 - 15"

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2630		25.0		mg/Kg			04/19/22 13:58	5

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-13745-1	Auger Hole 1	98	100
880-13745-1 MS	Auger Hole 1	2 S1-	99
880-13745-1 MSD	Auger Hole 1	96	102
880-13745-2	Auger Hole 1	94	101
880-13745-3	Auger Hole 2	102	100
880-13745-4	Auger Hole 2	119	95
LCS 880-23778/1-A	Lab Control Sample	99	102
LCSD 880-23778/2-A	Lab Control Sample Dup	97	101
MB 880-23778/5-A	Method Blank	100	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-13745-1	Auger Hole 1	78	90
880-13745-2	Auger Hole 1	81	91
880-13745-3	Auger Hole 2	79	87
880-13745-4	Auger Hole 2	94	113
880-13746-A-1-B MS	Matrix Spike	67 S1-	69 S1-
880-13746-A-1-C MSD	Matrix Spike Duplicate	71	75

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-23575/2-A	Lab Control Sample	113	132 S1+
LCSD 880-23575/3-A	Lab Control Sample Dup	100	118
MB 880-23575/1-A	Method Blank	80	96

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-23778/5-A
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23778

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/19/22 09:58	04/19/22 12:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/19/22 09:58	04/19/22 12:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/19/22 09:58	04/19/22 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:11*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*04/19/22 09:58*	*04/19/22 12:11*	*1*

Lab Sample ID: LCS 880-23778/1-A
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23778

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1203		mg/Kg		120	70 - 130
Toluene	0.100	0.1112		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1010		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2116		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1004		mg/Kg		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-23778/2-A
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23778

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1220		mg/Kg		122	70 - 130	1	35
Toluene	0.100	0.1124		mg/Kg		112	70 - 130	1	35
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2132		mg/Kg		107	70 - 130	1	35
o-Xylene	0.100	0.1014		mg/Kg		101	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-13745-1 MS
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Auger Hole 1
Prep Type: Total/NA
Prep Batch: 23778

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F2 F1	0.100	0.002399	F1	mg/Kg		2	70 - 130
Toluene	<0.00202	U F2 F1	0.100	<0.00200	U F1	mg/Kg		2	70 - 130

QC Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 880-13745-1
Project/Site: Quail Queen Unit #002
SDG: 15661

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

Lab Sample ID: 880-13745-1 MS
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Auger Hole 1
Prep Type: Total/NA
Prep Batch: 23778

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F2 F1	0.100	<0.00200	U F1	mg/Kg		2	70 - 130
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.200	<0.00401	U F1	mg/Kg		2	70 - 130
o-Xylene	<0.00202	U F1	0.100	<0.00200	U F1	mg/Kg		0	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*2*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-13745-1 MSD
Matrix: Solid
Analysis Batch: 23767

Client Sample ID: Auger Hole 1
Prep Type: Total/NA
Prep Batch: 23778

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0998	0.1105	F2	mg/Kg		111	70 - 130	192	35
Toluene	<0.00202	U F2 F1	0.0998	0.08062	F2	mg/Kg		81	70 - 130	191	35
Ethylbenzene	<0.00202	U F2 F1	0.0998	0.05685	F2 F1	mg/Kg		57	70 - 130	190	35
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.200	0.1160	F2 F1	mg/Kg		58	70 - 130	189	35
o-Xylene	<0.00202	U F1	0.0998	0.05504	F1	mg/Kg		55	70 - 130	NC	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-23575/1-A
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23575

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/15/22 08:43	04/15/22 10:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/15/22 08:43	04/15/22 10:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/15/22 08:43	04/15/22 10:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*04/15/22 08:43*	*04/15/22 10:24*	*1*
o-Terphenyl	*96*		*70 - 130*	*04/15/22 08:43*	*04/15/22 10:24*	*1*

Lab Sample ID: LCS 880-23575/2-A
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	977.3		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1032		mg/Kg		103	70 - 130

Eurofins Midland

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

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

Lab Sample ID: LCS 880-23575/2-A
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23575

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	132	S1+	70 - 130

Lab Sample ID: LCSD 880-23575/3-A
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23575

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1072		mg/Kg		107	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	910.6		mg/Kg		91	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 880-13746-A-1-B MS
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 23575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	1000	694.8	F1	mg/Kg		67	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	596.9	F1	mg/Kg		58	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	67	S1-	70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 880-13746-A-1-C MSD
Matrix: Solid
Analysis Batch: 23584

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 23575

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	734.2		mg/Kg		72	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	657.3	F1	mg/Kg		64	70 - 130	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	75		70 - 130

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23640/1-A
Matrix: Solid
Analysis Batch: 23775

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/19/22 09:39	1

Lab Sample ID: LCS 880-23640/2-A
Matrix: Solid
Analysis Batch: 23775

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	233.2		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-23640/3-A
Matrix: Solid
Analysis Batch: 23775

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	230.5		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 880-13733-A-1-F MS
Matrix: Solid
Analysis Batch: 23775

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	78.0		250	307.1		mg/Kg		92	90 - 110		

Lab Sample ID: 880-13733-A-1-G MSD
Matrix: Solid
Analysis Batch: 23775

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	78.0		250	310.0		mg/Kg		93	90 - 110	1	20

Lab Sample ID: MB 880-23643/1-A
Matrix: Solid
Analysis Batch: 23776

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/19/22 13:20	1

Lab Sample ID: LCS 880-23643/2-A
Matrix: Solid
Analysis Batch: 23776

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	228.6		mg/Kg		91	90 - 110		

Lab Sample ID: LCSD 880-23643/3-A
Matrix: Solid
Analysis Batch: 23776

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	233.3		mg/Kg		93	90 - 110	2	20

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-13745-3 MS
Matrix: Solid
Analysis Batch: 23776

Client Sample ID: Auger Hole 2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1190		1250	2472		mg/Kg		103	90 - 110

Lab Sample ID: 880-13745-3 MSD
Matrix: Solid
Analysis Batch: 23776

Client Sample ID: Auger Hole 2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1190		1250	2431		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

GC VOA

Analysis Batch: 23767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	8021B	23778
880-13745-2	Auger Hole 1	Total/NA	Solid	8021B	23778
880-13745-3	Auger Hole 2	Total/NA	Solid	8021B	23778
880-13745-4	Auger Hole 2	Total/NA	Solid	8021B	23778
MB 880-23778/5-A	Method Blank	Total/NA	Solid	8021B	23778
LCS 880-23778/1-A	Lab Control Sample	Total/NA	Solid	8021B	23778
LCSD 880-23778/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23778
880-13745-1 MS	Auger Hole 1	Total/NA	Solid	8021B	23778
880-13745-1 MSD	Auger Hole 1	Total/NA	Solid	8021B	23778

Prep Batch: 23778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	5035	
880-13745-2	Auger Hole 1	Total/NA	Solid	5035	
880-13745-3	Auger Hole 2	Total/NA	Solid	5035	
880-13745-4	Auger Hole 2	Total/NA	Solid	5035	
MB 880-23778/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23778/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23778/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13745-1 MS	Auger Hole 1	Total/NA	Solid	5035	
880-13745-1 MSD	Auger Hole 1	Total/NA	Solid	5035	

Analysis Batch: 23799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-13745-2	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-13745-3	Auger Hole 2	Total/NA	Solid	Total BTEX	
880-13745-4	Auger Hole 2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 23575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-13745-2	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-13745-3	Auger Hole 2	Total/NA	Solid	8015NM Prep	
880-13745-4	Auger Hole 2	Total/NA	Solid	8015NM Prep	
MB 880-23575/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23575/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13746-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-13746-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 23584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	8015B NM	23575
880-13745-2	Auger Hole 1	Total/NA	Solid	8015B NM	23575
880-13745-3	Auger Hole 2	Total/NA	Solid	8015B NM	23575
880-13745-4	Auger Hole 2	Total/NA	Solid	8015B NM	23575
MB 880-23575/1-A	Method Blank	Total/NA	Solid	8015B NM	23575
LCS 880-23575/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23575

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

GC Semi VOA (Continued)

Analysis Batch: 23584 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-23575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23575
880-13746-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	23575
880-13746-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23575

Analysis Batch: 23735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Total/NA	Solid	8015 NM	
880-13745-2	Auger Hole 1	Total/NA	Solid	8015 NM	
880-13745-3	Auger Hole 2	Total/NA	Solid	8015 NM	
880-13745-4	Auger Hole 2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 23640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Soluble	Solid	DI Leach	
880-13745-2	Auger Hole 1	Soluble	Solid	DI Leach	
MB 880-23640/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23640/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23640/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13733-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-13733-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 23643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-3	Auger Hole 2	Soluble	Solid	DI Leach	
880-13745-4	Auger Hole 2	Soluble	Solid	DI Leach	
MB 880-23643/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23643/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23643/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13745-3 MS	Auger Hole 2	Soluble	Solid	DI Leach	
880-13745-3 MSD	Auger Hole 2	Soluble	Solid	DI Leach	

Analysis Batch: 23775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-1	Auger Hole 1	Soluble	Solid	300.0	23640
880-13745-2	Auger Hole 1	Soluble	Solid	300.0	23640
MB 880-23640/1-A	Method Blank	Soluble	Solid	300.0	23640
LCS 880-23640/2-A	Lab Control Sample	Soluble	Solid	300.0	23640
LCSD 880-23640/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23640
880-13733-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	23640
880-13733-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	23640

Analysis Batch: 23776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-3	Auger Hole 2	Soluble	Solid	300.0	23643
880-13745-4	Auger Hole 2	Soluble	Solid	300.0	23643
MB 880-23643/1-A	Method Blank	Soluble	Solid	300.0	23643
LCS 880-23643/2-A	Lab Control Sample	Soluble	Solid	300.0	23643
LCSD 880-23643/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23643
880-13745-3 MS	Auger Hole 2	Soluble	Solid	300.0	23643

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

HPLC/IC (Continued)

Analysis Batch: 23776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13745-3 MSD	Auger Hole 2	Soluble	Solid	300.0	23643

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-13745-1
Matrix: Solid
Date Collected: 04/06/22 12:00
Date Received: 04/14/22 16:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	23778	04/19/22 09:58	MR	XEN MID
Total/NA	Analysis	8021B		1			23767	04/19/22 12:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23799	04/19/22 16:59	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23735	04/18/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23575	04/15/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23584	04/16/22 05:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23640	04/15/22 11:47	SC	XEN MID
Soluble	Analysis	300.0		1			23775	04/19/22 12:42	CH	XEN MID

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-13745-2
Matrix: Solid
Date Collected: 04/06/22 12:02
Date Received: 04/14/22 16:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	23778	04/19/22 09:58	MR	XEN MID
Total/NA	Analysis	8021B		1			23767	04/19/22 12:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23799	04/19/22 16:59	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23735	04/18/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23575	04/15/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23584	04/16/22 05:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23640	04/15/22 11:47	SC	XEN MID
Soluble	Analysis	300.0		1			23775	04/19/22 12:48	CH	XEN MID

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-13745-3
Matrix: Solid
Date Collected: 04/06/22 12:04
Date Received: 04/14/22 16:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	23778	04/19/22 09:58	MR	XEN MID
Total/NA	Analysis	8021B		1			23767	04/19/22 13:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23799	04/19/22 16:59	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23735	04/18/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23575	04/15/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23584	04/16/22 05:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23643	04/15/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		5			23776	04/19/22 13:39	SC	XEN MID

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-13745-4
Matrix: Solid
Date Collected: 04/06/22 12:06
Date Received: 04/14/22 16:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	23778	04/19/22 09:58	MR	XEN MID
Total/NA	Analysis	8021B		1			23767	04/19/22 13:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23799	04/19/22 16:59	AJ	XEN MID

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Job ID: 880-13745-1
Project/Site: Quail Queen Unit #002
SDG: 15661

Client Sample ID: Auger Hole 2
Lab Sample ID: 880-13745-4

Date Collected: 04/06/22 12:06
Matrix: Solid
Date Received: 04/14/22 16:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			23735	04/18/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23575	04/15/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23584	04/15/22 17:03	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23643	04/15/22 11:50	SC	XEN MID
Soluble	Analysis	300.0		5			23776	04/19/22 13:58	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Job ID: 880-13745-1
Project/Site: Quail Queen Unit #002
SDG: 15661

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Quail Queen Unit #002

Job ID: 880-13745-1
SDG: 15661

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-13745-1	Auger Hole 1	Solid	04/06/22 12:00	04/14/22 16:29	0 - 6"
880-13745-2	Auger Hole 1	Solid	04/06/22 12:02	04/14/22 16:29	12 - 15"
880-13745-3	Auger Hole 2	Solid	04/06/22 12:04	04/14/22 16:29	0 - 6"
880-13745-4	Auger Hole 2	Solid	04/06/22 12:06	04/14/22 16:29	12 - 15"

XENCO LABORATORIES

Chain of Custody

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

Work Order No: 13745

www xenco com Page _____ of _____

4/20/2022

Project Manager	Brandon Wilson	Bill to (if different)	
Company Name	Etech Environmental	Company Name	
Address	13000 W CR 100	Address	
City, State ZIP	Odessa, Texas 79765	City, State ZIP	
Phone	432-563-2200	Email	brandon@etechenv com, blake@etechenv com

Work Order Comments

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

Project Name	Quail Queen Unit #002	Turn Around	
Project Number	15661	Routine ☐	
P O Number	15661	Rush	
Sampler's Name	Blake Estep	Due Date	

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	(Yes) No
Temperature (°C)	3.2	Thermometer ID	IR8
Received Intact.	(Yes) No		
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1
Sample Custody Seals	Yes No (N/A)	Total Containers	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TPH 8015M	BTEX 8021B
Auger Hole 1	S	4/6/2022	12 00	0-6"	1	X	X	X
Auger Hole 1	S	4/6/2022	12 02	12-15"	1	X	X	X
Auger Hole 2	S	4/6/2022	12 04	0-6"	1	X	X	X
Auger Hole 2	S	4/6/2022	12 06	12-15"	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

880-13745 Chain of Custody

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

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

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

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		4/14/22 10:29	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 880-13745-1
SDG Number: 15661

Login Number: 13745
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Midland

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

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Blake Estep
E Tech Environmental & Safety Solutions, Inc. [1]
13000 West County Road 100
Odessa, TX 79765

Project: Quail Queen #002
Project Number: 15661
Location: New Mexico

Lab Order Number: 2L02013

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 12/09/22

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom Hole - 1 @ 12"	2L02013-01	Soil	12/01/22 14:00	12-02-2022 12:40
Bottom Hole - 2 @ 12"	2L02013-02	Soil	12/01/22 14:02	12-02-2022 12:40
Bottom Hole - 3 @ 12"	2L02013-03	Soil	12/01/22 14:04	12-02-2022 12:40
North Sidewall @ 6"	2L02013-04	Soil	12/01/22 14:06	12-02-2022 12:40
East Sidewall @ 6"	2L02013-05	Soil	12/01/22 14:08	12-02-2022 12:40
South Sidewall @ 6"	2L02013-06	Soil	12/01/22 14:10	12-02-2022 12:40
West Sidewall @ 6"	2L02013-07	Soil	12/01/22 14:12	12-02-2022 12:40

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Bottom Hole - 1 @ 12"

2L02013-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:23	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:23	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:23	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:23	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:23	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 22:23*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*85.9 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 22:23*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P2L0601	12/06/22 09:00	12/06/22 21:09	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P2L0601	12/06/22 09:00	12/06/22 21:09	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P2L0601	12/06/22 09:00	12/06/22 21:09	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P2L0601*	*12/06/22 09:00*	*12/06/22 21:09*	*TPH 8015M*	
Surrogate: o-Terphenyl		*117 %*	*70-130*		*P2L0601*	*12/06/22 09:00*	*12/06/22 21:09*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	12/06/22 09:00	12/06/22 21:09	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**19.2**	1.15	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 09:36	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Bottom Hole - 2 @ 12''

2L02013-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:44	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:44	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:44	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:44	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 22:44	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 22:44*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*86.5 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 22:44*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	144	mg/kg dry	5	P2L0601	12/06/22 09:00	12/06/22 21:32	TPH 8015M	
>C12-C28	**597**	144	mg/kg dry	5	P2L0601	12/06/22 09:00	12/06/22 21:32	TPH 8015M	
>C28-C35	ND	144	mg/kg dry	5	P2L0601	12/06/22 09:00	12/06/22 21:32	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2L0601*	*12/06/22 09:00*	*12/06/22 21:32*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*	*70-130*		*P2L0601*	*12/06/22 09:00*	*12/06/22 21:32*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**597**	144	mg/kg dry	5	[CALC]	12/06/22 09:00	12/06/22 21:32	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2220**	11.5	mg/kg dry	10	P2L0505	12/05/22 15:51	12/06/22 09:49	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Bottom Hole - 3 @ 12"

2L02013-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00114	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:05	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:05	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:05	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:05	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:05	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*95.6 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:05*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.5 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:05*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	284	mg/kg dry	10	P2L0602	12/06/22 09:00	12/06/22 13:24	TPH 8015M	
>C12-C28	**3870**	284	mg/kg dry	10	P2L0602	12/06/22 09:00	12/06/22 13:24	TPH 8015M	
>C28-C35	**1540**	284	mg/kg dry	10	P2L0602	12/06/22 09:00	12/06/22 13:24	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/06/22 13:24*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/06/22 13:24*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**5410**	284	mg/kg dry	10	[CALC]	12/06/22 09:00	12/06/22 13:24	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**312**	1.14	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 10:02	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

North Sidewall @ 6''

2L02013-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00112	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:26	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:26	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:26	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:26	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:26	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.1 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:26*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:26*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P2L0602	12/06/22 09:00	12/06/22 13:45	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P2L0602	12/06/22 09:00	12/06/22 13:45	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P2L0602	12/06/22 09:00	12/06/22 13:45	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/06/22 13:45*	*TPH 8015M*	
Surrogate: o-Terphenyl		*118 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/06/22 13:45*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	12/06/22 09:00	12/06/22 13:45	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**142**	1.12	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 10:15	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

East Sidewall @ 6"

2L02013-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00110	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:47	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:47	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:47	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:47	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P2L0503	12/05/22 13:09	12/05/22 23:47	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*87.6 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:47*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/05/22 23:47*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 11:47	TPH 8015M	
>C12-C28	**1160**	27.5	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 11:47	TPH 8015M	
>C28-C35	**523**	27.5	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 11:47	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 11:47*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 11:47*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1680**	27.5	mg/kg dry	1	[CALC]	12/06/22 09:00	12/08/22 11:47	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**324**	1.10	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 10:55	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

South Sidewall @ 6''

2L02013-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00109	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:08	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:08	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:08	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:08	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:08	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	*99.4 %*		*80-120*		*P2L0503*	*12/05/22 13:09*	*12/06/22 00:08*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene	*87.3 %*		*80-120*		*P2L0503*	*12/05/22 13:09*	*12/06/22 00:08*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:08	TPH 8015M	
>C12-C28	**335**	27.2	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:08	TPH 8015M	
>C28-C35	**155**	27.2	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:08	TPH 8015M	
Surrogate: 1-Chlorooctane	*104 %*		*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 12:08*	*TPH 8015M*	
Surrogate: o-Terphenyl	*116 %*		*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 12:08*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**490**	27.2	mg/kg dry	1	[CALC]	12/06/22 09:00	12/08/22 12:08	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**668**	1.09	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 11:35	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

West Sidewall @ 6"

2L02013-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.00111	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:29	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:29	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:29	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:29	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P2L0503	12/05/22 13:09	12/06/22 00:29	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*86.4 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/06/22 00:29*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*		*P2L0503*	*12/05/22 13:09*	*12/06/22 00:29*	*EPA 8021B*	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:30	TPH 8015M	
>C12-C28	**650**	27.8	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:30	TPH 8015M	
>C28-C35	**286**	27.8	mg/kg dry	1	P2L0602	12/06/22 09:00	12/08/22 12:30	TPH 8015M	
Surrogate: 1-Chlorooctane		*99.8 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 12:30*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P2L0602*	*12/06/22 09:00*	*12/08/22 12:30*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**937**	27.8	mg/kg dry	1	[CALC]	12/06/22 09:00	12/08/22 12:30	calc	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**26.7**	1.11	mg/kg dry	1	P2L0505	12/05/22 15:51	12/06/22 11:48	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P2L0707	12/07/22 13:14	12/07/22 13:37	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0503 - * DEFAULT PREP *** **										
Blank (P2L0503-BLK1)				Prepared & Analyzed: 12/05/22						
Benzene	ND	0.00100	mg/kg							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.119*		"	*0.120*		*99.2*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.101*		"	*0.120*		*84.6*	*80-120*			
LCS (P2L0503-BS1)				Prepared & Analyzed: 12/05/22						
Benzene	0.102	0.00100	mg/kg	0.100		102	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.195	0.00200	"	0.200		97.6	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	*0.138*		"	*0.120*		*115*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.107*		"	*0.120*		*89.4*	*80-120*			
LCS Dup (P2L0503-BSD1)				Prepared & Analyzed: 12/05/22						
Benzene	0.115	0.00100	mg/kg	0.100		115	80-120	11.9	20	
Toluene	0.119	0.00100	"	0.100		119	80-120	10.2	20	
Ethylbenzene	0.118	0.00100	"	0.100		118	80-120	4.00	20	
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120	7.56	20	
Xylene (o)	0.119	0.00100	"	0.100		119	80-120	7.83	20	
Surrogate: 1,4-Difluorobenzene	*0.108*		"	*0.120*		*89.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.137*		"	*0.120*		*114*	*80-120*			
Calibration Blank (P2L0503-CCB1)				Prepared & Analyzed: 12/05/22						
Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.140		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.128*		"	*0.120*		*107*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0980*		"	*0.120*		*81.6*	*80-120*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0503 - * DEFAULT PREP *** **										
Calibration Blank (P2L0503-CCB2)				Prepared & Analyzed: 12/05/22						
Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.120		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.102*		*"*	*0.120*		*84.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.126*		*"*	*0.120*		*105*	*80-120*			
Calibration Check (P2L0503-CCV1)				Prepared & Analyzed: 12/05/22						
Benzene	0.0996	0.00100	mg/kg				80-120			
Toluene	0.107	0.00100	"				80-120			
Ethylbenzene	0.117	0.00100	"				80-120			
Xylene (p/m)	0.193	0.00200	"				80-120			
Xylene (o)	0.117	0.00100	"				80-120			
Surrogate: 1,4-Difluorobenzene	*0.102*		*"*	*0.120*		*85.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.129*		*"*	*0.120*		*107*	*75-125*			
Calibration Check (P2L0503-CCV2)				Prepared & Analyzed: 12/05/22						
Benzene	0.110	0.00100	mg/kg				80-120			
Toluene	0.114	0.00100	"				80-120			
Ethylbenzene	0.119	0.00100	"				80-120			
Xylene (p/m)	0.197	0.00200	"				80-120			
Xylene (o)	0.119	0.00100	"				80-120			
Surrogate: 1,4-Difluorobenzene	*0.107*		*"*	*0.120*		*89.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.131*		*"*	*0.120*		*109*	*75-125*			
Calibration Check (P2L0503-CCV3)				Prepared: 12/05/22 Analyzed: 12/06/22						
Benzene	0.112	0.00100	mg/kg				80-120			
Toluene	0.117	0.00100	"				80-120			
Ethylbenzene	0.119	0.00100	"				80-120			
Xylene (p/m)	0.199	0.00200	"				80-120			
Xylene (o)	0.119	0.00100	"				80-120			
Surrogate: 1,4-Difluorobenzene	*0.105*		*"*	*0.120*		*87.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0503 - * DEFAULT PREP *** **										
Matrix Spike (P2L0503-MS1)	**Source: 2L02002-01**			Prepared: 12/05/22 Analyzed: 12/06/22						
Benzene	0.0129	0.00103	mg/kg dry	0.103	ND	12.5	80-120			QM-05
Toluene	0.0115	0.00103	"	0.103	ND	11.1	80-120			QM-05
Ethylbenzene	0.0180	0.00103	"	0.103	ND	17.4	80-120			QM-05
Xylene (p/m)	0.00540	0.00206	"	0.206	ND	2.62	80-120			QM-05
Xylene (o)	0.0302	0.00103	"	0.103	ND	29.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.111*		"	*0.124*		*89.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.123*		"	*0.124*		*99.3*	*80-120*			
Matrix Spike Dup (P2L0503-MSD1)	**Source: 2L02002-01**			Prepared: 12/05/22 Analyzed: 12/06/22						
Benzene	0.00410	0.00103	mg/kg dry	0.103	ND	3.98	80-120	103	20	QM-05
Toluene	0.00374	0.00103	"	0.103	ND	3.63	80-120	102	20	QM-05
Ethylbenzene	0.00368	0.00103	"	0.103	ND	3.57	80-120	132	20	QM-05
Xylene (p/m)	ND	0.00206	"	0.206	ND		80-120		20	QM-05
Xylene (o)	0.000639	0.00103	"	0.103	ND	0.620	80-120	192	20	QM-05
Surrogate: 4-Bromofluorobenzene	*0.131*		"	*0.124*		*106*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.112*		"	*0.124*		*90.5*	*80-120*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0601 - TX 1005										
Blank (P2L0601-BLK1)				Prepared & Analyzed: 12/06/22						
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*109*		*"*	*100*		*109*	*70-130*			
Surrogate: o-Terphenyl	*57.7*		*"*	*50.0*		*115*	*70-130*			
LCS (P2L0601-BS1)				Prepared & Analyzed: 12/06/22						
C6-C12	804	25.0	mg/kg	1000		80.4	75-125			
>C12-C28	820	25.0	"	1000		82.0	75-125			
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*56.7*		*"*	*50.0*		*113*	*70-130*			
LCS Dup (P2L0601-BSD1)				Prepared & Analyzed: 12/06/22						
C6-C12	810	25.0	mg/kg	1000		81.0	75-125	0.798	20	
>C12-C28	840	25.0	"	1000		84.0	75-125	2.50	20	
Surrogate: 1-Chlorooctane	*124*		*"*	*100*		*124*	*70-130*			
Surrogate: o-Terphenyl	*57.8*		*"*	*50.0*		*116*	*70-130*			
Calibration Blank (P2L0601-CCB1)				Prepared & Analyzed: 12/06/22						
C6-C12	9.88		mg/kg							
>C12-C28	9.19		"							
Surrogate: 1-Chlorooctane	*108*		*"*	*100*		*108*	*70-130*			
Surrogate: o-Terphenyl	*56.3*		*"*	*50.0*		*113*	*70-130*			
Calibration Blank (P2L0601-CCB2)				Prepared & Analyzed: 12/06/22						
C6-C12	8.88		mg/kg							
>C12-C28	7.03		"							
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*59.2*		*"*	*50.0*		*118*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0601 - TX 1005										
Calibration Check (P2L0601-CCV1)				Prepared & Analyzed: 12/06/22						
C6-C12	471	25.0	mg/kg	500		94.1	85-115			
>C12-C28	472	25.0	"	500		94.4	85-115			
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*58.2*		*"*	*50.0*		*116*	*70-130*			
Calibration Check (P2L0601-CCV2)				Prepared & Analyzed: 12/06/22						
C6-C12	475	25.0	mg/kg	500		94.9	85-115			
>C12-C28	507	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	*119*		*"*	*100*		*119*	*70-130*			
Surrogate: o-Terphenyl	*58.4*		*"*	*50.0*		*117*	*70-130*			
Calibration Check (P2L0601-CCV3)				Prepared & Analyzed: 12/06/22						
C6-C12	494	25.0	mg/kg	500		98.7	85-115			
>C12-C28	504	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*63.0*		*"*	*50.0*		*126*	*70-130*			
Duplicate (P2L0601-DUP1)		**Source: 2L02006-11**		Prepared & Analyzed: 12/06/22						
C6-C12	505	281	mg/kg dry		ND			164	20	
>C12-C28	4700	281	"		462			164	20	
Surrogate: 1-Chlorooctane	*132*		*"*	*112*		*118*	*70-130*			
Surrogate: o-Terphenyl	*63.1*		*"*	*56.2*		*112*	*70-130*			
Batch P2L0602 - TX 1005										
Blank (P2L0602-BLK1)				Prepared & Analyzed: 12/06/22						
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*62.8*		*"*	*50.0*		*126*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0602 - TX 1005										
LCS (P2L0602-BS1)				Prepared & Analyzed: 12/06/22						
C6-C12	786	25.0	mg/kg	1000		78.6	75-125			
>C12-C28	871	25.0	"	1000		87.1	75-125			
Surrogate: 1-Chlorooctane	*120*		"	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*62.9*		"	*50.0*		*126*	*70-130*			
LCS Dup (P2L0602-BSD1)				Prepared & Analyzed: 12/06/22						
C6-C12	812	25.0	mg/kg	1000		81.2	75-125	3.23	20	
>C12-C28	861	25.0	"	1000		86.1	75-125	1.12	20	
Surrogate: 1-Chlorooctane	*116*		"	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*59.6*		"	*50.0*		*119*	*70-130*			
Calibration Blank (P2L0602-CCB1)				Prepared & Analyzed: 12/06/22						
C6-C12	16.8		mg/kg							
>C12-C28	6.25		"							
Surrogate: 1-Chlorooctane	*108*		"	*100*		*108*	*70-130*			
Surrogate: o-Terphenyl	*58.1*		"	*50.0*		*116*	*70-130*			
Calibration Blank (P2L0602-CCB2)				Prepared & Analyzed: 12/06/22						
C6-C12	10.3		mg/kg							
>C12-C28	14.4		"							
Surrogate: 1-Chlorooctane	*110*		"	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*58.7*		"	*50.0*		*117*	*70-130*			
Calibration Check (P2L0602-CCV1)				Prepared & Analyzed: 12/06/22						
C6-C12	459	25.0	mg/kg	500		91.7	85-115			
>C12-C28	530	25.0	"	500		106	85-115			
Surrogate: 1-Chlorooctane	*130*		"	*100*		*130*	*70-130*			
Surrogate: o-Terphenyl	*58.3*		"	*50.0*		*117*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0602 - TX 1005										
Calibration Check (P2L0602-CCV2)				Prepared & Analyzed: 12/06/22						
C6-C12	472	25.0	mg/kg	500		94.4	85-115			
>C12-C28	507	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	*109*		*"*	*100*		*109*	*70-130*			
Surrogate: o-Terphenyl	*59.8*		*"*	*50.0*		*120*	*70-130*			
Calibration Check (P2L0602-CCV3)				Prepared: 12/06/22 Analyzed: 12/07/22						
C6-C12	472	25.0	mg/kg	500		94.4	85-115			
>C12-C28	523	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*58.2*		*"*	*50.0*		*116*	*70-130*			
Duplicate (P2L0602-DUP1)		**Source: 2L02013-03**		Prepared: 12/06/22 Analyzed: 12/07/22						
C6-C12	158	284	mg/kg dry		115			31.5	20	
>C12-C28	3860	284	"		3870			0.268	20	
Surrogate: 1-Chlorooctane	*115*		*"*	*114*		*101*	*70-130*			
Surrogate: o-Terphenyl	*61.9*		*"*	*56.8*		*109*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0505 - * DEFAULT PREP *** **										
Blank (P2L0505-BLK1)				Prepared & Analyzed: 12/05/22						
Chloride	ND	1.00	mg/kg							
LCS (P2L0505-BS1)				Prepared & Analyzed: 12/05/22						
Chloride	20.3		mg/kg	20.0		102	90-110			
LCS Dup (P2L0505-BSD1)				Prepared & Analyzed: 12/05/22						
Chloride	20.8		mg/kg	20.0		104	90-110	2.61	10	
Calibration Blank (P2L0505-CCB1)				Prepared & Analyzed: 12/05/22						
Chloride	0.0570		mg/kg							
Calibration Blank (P2L0505-CCB2)				Prepared: 12/05/22 Analyzed: 12/06/22						
Chloride	0.158		mg/kg							
Calibration Check (P2L0505-CCV1)				Prepared: 12/05/22 Analyzed: 12/07/22						
Chloride	18.6		mg/kg	20.0		93.1	90-110			
Calibration Check (P2L0505-CCV2)				Prepared: 12/05/22 Analyzed: 12/07/22						
Chloride	18.4		mg/kg	20.0		92.0	90-110			
Calibration Check (P2L0505-CCV3)				Prepared: 12/05/22 Analyzed: 12/06/22						
Chloride	20.6		mg/kg	20.0		103	90-110			
Matrix Spike (P2L0505-MS1)		**Source: 2L02006-05**		Prepared & Analyzed: 12/05/22						
Chloride	577	1.08	mg/kg dry	269	308	100	80-120			
Matrix Spike (P2L0505-MS2)		**Source: 2L02013-05**		Prepared: 12/05/22 Analyzed: 12/06/22						
Chloride	527	1.10	mg/kg dry	275	324	73.9	80-120			QM-05

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0505 - * DEFAULT PREP *** **										
Matrix Spike Dup (P2L0505-MSD1)	**Source: 2L02006-05**			Prepared & Analyzed: 12/05/22						
Chloride	544	1.08	mg/kg dry	269	308	88.1	80-120	5.82	20	
Matrix Spike Dup (P2L0505-MSD2)	**Source: 2L02013-05**			Prepared: 12/05/22 Analyzed: 12/06/22						
Chloride	525	1.10	mg/kg dry	275	324	73.3	80-120	0.307	20	QM-05
Batch P2L0707 - * DEFAULT PREP *** **										
Blank (P2L0707-BLK1)				Prepared & Analyzed: 12/07/22						
% Moisture	ND	0.1	%							
Blank (P2L0707-BLK2)				Prepared & Analyzed: 12/07/22						
% Moisture	ND	0.1	%							
Duplicate (P2L0707-DUP1)	**Source: 2L02013-04**			Prepared & Analyzed: 12/07/22						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P2L0707-DUP2)	**Source: 2L02014-07**			Prepared & Analyzed: 12/07/22						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P2L0707-DUP3)	**Source: 2L02016-13**			Prepared & Analyzed: 12/07/22						
% Moisture	14.0	0.1	%		14.0			0.00	20	
Duplicate (P2L0707-DUP4)	**Source: 2L02016-23**			Prepared & Analyzed: 12/07/22						
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P2L0707-DUP5)	**Source: 2L02016-38**			Prepared & Analyzed: 12/07/22						
% Moisture	8.0	0.1	%		8.0			0.00	20	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P2L0707 - * DEFAULT PREP *** **										
Duplicate (P2L0707-DUP6)		**Source: 2L02016-48**		Prepared & Analyzed: 12/07/22						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P2L0707-DUP7)		**Source: 2L02016-63**		Prepared & Analyzed: 12/07/22						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P2L0707-DUP8)		**Source: 2L05002-10**		Prepared & Analyzed: 12/07/22						
% Moisture	9.0	0.1	%		10.0			10.5	20	
Duplicate (P2L0707-DUP9)		**Source: 2L05011-02**		Prepared & Analyzed: 12/07/22						
% Moisture	12.0	0.1	%		12.0			0.00	20	
Duplicate (P2L0707-DUPA)		**Source: 2L05011-04**		Prepared & Analyzed: 12/07/22						
% Moisture	9.0	0.1	%		8.0			11.8	20	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 12/9/2022

Brent Barron, Laboratory Director/Technical Director

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

PBELAB Permian Basin Environmental Lab, LP

1400 Rankin Hwy Midland Texas 79701 Phone: 432-686-7235

V. Mill

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Blake Estep
Company Name: Etech Environmental & Safety Solutions, Inc.
Company Address: P.O. Box 62228
City/State/Zip: Midland, Texas 79711
Sampler Signature: _____ email: blake@etechenv.com

Project Name: Quail Queen #002
Project #: 15661 Project Loc: New Mexico
Area: PO#: 15661

☑ Bill Etech

Report Format: STANDARD:☑ TRRP:☐ NPDES:☐

(lab use only)
ORDER #: 2L02013

LAB # (lab use only)	FIELD CODE	Start Depth	End Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW=Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semi volatiles	BTEX 8021B 5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides	RUSH TAT(Pre-Schedule) 24, 48, 72 hrs	STANDARD TAT
1	Bottom Hole 1		12"	12-1-22	2:00	1	☒								S	☒							☒			☒			☒
2	" " 2		12"		2:02	1																							
3	" " 3		12"		2:04	1																							
4	North Sidewall		6"		2:06	1																							
5	East "		6"		2:08	1																							
6	South "		6"		2:10	1																							
7	West "		6"		2:12	1																							

Special Instructions:

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
Sar by Sampler/Client Rep. ?	Y	N

Sar by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 1.9 2a C

Relinquished by:	Date	Time	Received by:	Date	Time
	12-2-22	12:40 Pm			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
			Tijuana Bledsoe	12/2/22	12:40

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Blake Estep

E Tech Environmental & Safety Solutions, Inc. [1]

13000 West County Road 100

Odessa, TX 79765

Project: Quail Queen #002

Project Number: 15661

Location: New Mexico

Lab Order Number: 3A05005

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 01/10/23

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom Hole - 3H @ 15"	3A05005-01	Soil	01/03/23 11:00	01-05-2023 12:35
East Sidewall 1A @ 6"	3A05005-02	Soil	01/03/23 11:30	01-05-2023 12:35

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Bottom Hole - 3H @ 15"

3A05005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:34	TPH 8015M	
>C12-C28	**846**	26.0	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:34	TPH 8015M	
>C28-C35	**297**	26.0	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:34	TPH 8015M	
Surrogate: 1-Chlorooctane		*90.7 %*	*70-130*		*P3A0608*	*01/06/23 13:00*	*01/09/23 09:34*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.5 %*	*70-130*		*P3A0608*	*01/06/23 13:00*	*01/09/23 09:34*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1140**	26.0	mg/kg dry	1	[CALC]	01/06/23 13:00	01/09/23 09:34	calc	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**4.0**	0.1	%	1	P3A0904	01/09/23 10:09	01/09/23 10:11	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

East Sidewall 1A @ 6"

3A05005-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:56	TPH 8015M	
>C12-C28	**348**	26.6	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:56	TPH 8015M	
>C28-C35	**142**	26.6	mg/kg dry	1	P3A0608	01/06/23 13:00	01/09/23 09:56	TPH 8015M	
Surrogate: 1-Chlorooctane		*89.4 %*	*70-130*		*P3A0608*	*01/06/23 13:00*	*01/09/23 09:56*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.0 %*	*70-130*		*P3A0608*	*01/06/23 13:00*	*01/09/23 09:56*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**490**	26.6	mg/kg dry	1	[CALC]	01/06/23 13:00	01/09/23 09:56	calc	
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**6.0**	0.1	%	1	P3A0904	01/09/23 10:09	01/09/23 10:11	ASTM D2216	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3A0608 - TX 1005										
Blank (P3A0608-BLK1)				Prepared & Analyzed: 01/06/23						
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*85.3*		*"*	*100*		*85.3*	*70-130*			
Surrogate: o-Terphenyl	*46.9*		*"*	*50.0*		*93.8*	*70-130*			
LCS (P3A0608-BS1)				Prepared & Analyzed: 01/06/23						
C6-C12	906	25.0	mg/kg	1000		90.6	75-125			
>C12-C28	893	25.0	"	1000		89.3	75-125			
Surrogate: 1-Chlorooctane	*127*		*"*	*100*		*127*	*70-130*			
Surrogate: o-Terphenyl	*55.0*		*"*	*50.0*		*110*	*70-130*			
LCS Dup (P3A0608-BSD1)				Prepared & Analyzed: 01/06/23						
C6-C12	906	25.0	mg/kg	1000		90.6	75-125	0.0585	20	
>C12-C28	881	25.0	"	1000		88.1	75-125	1.36	20	
Surrogate: 1-Chlorooctane	*117*		*"*	*100*		*117*	*70-130*			
Surrogate: o-Terphenyl	*53.3*		*"*	*50.0*		*107*	*70-130*			
Calibration Check (P3A0608-CCV1)				Prepared & Analyzed: 01/06/23						
C6-C12	484	25.0	mg/kg	500		96.8	85-115			
>C12-C28	469	25.0	"	500		93.8	85-115			
Surrogate: 1-Chlorooctane	*104*		*"*	*100*		*104*	*70-130*			
Surrogate: o-Terphenyl	*49.0*		*"*	*50.0*		*98.0*	*70-130*			
Calibration Check (P3A0608-CCV2)				Prepared: 01/06/23 Analyzed: 01/07/23						
C6-C12	476	25.0	mg/kg	500		95.2	85-115			
>C12-C28	466	25.0	"	500		93.2	85-115			
Surrogate: 1-Chlorooctane	*104*		*"*	*100*		*104*	*70-130*			
Surrogate: o-Terphenyl	*52.2*		*"*	*50.0*		*104*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3A0608 - TX 1005										
Calibration Check (P3A0608-CCV3)				Prepared: 01/06/23 Analyzed: 01/07/23						
C6-C12	484	25.0	mg/kg	500		96.7	85-115			
>C12-C28	462	25.0	"	500		92.4	85-115			
Surrogate: 1-Chlorooctane	*104*		*"*	*100*		*104*	*70-130*			
Surrogate: o-Terphenyl	*50.4*		*"*	*50.0*		*101*	*70-130*			
Duplicate (P3A0608-DUP1)		**Source: 3A05005-01**		Prepared: 01/06/23 Analyzed: 01/07/23						
C6-C12	ND	260	mg/kg dry		ND				20	
>C12-C28	850	260	"		846			0.472	20	
Surrogate: 1-Chlorooctane	*83.3*		*"*	*104*		*80.0*	*70-130*			
Surrogate: o-Terphenyl	*45.5*		*"*	*52.1*		*87.4*	*70-130*			

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3A0904 - * DEFAULT PREP *** **										
Blank (P3A0904-BLK1)				Prepared & Analyzed: 01/09/23						
% Moisture	ND	0.1	%							
Blank (P3A0904-BLK2)				Prepared & Analyzed: 01/09/23						
% Moisture	ND	0.1	%							
Duplicate (P3A0904-DUP1)	**Source: 3A05011-02**			Prepared & Analyzed: 01/09/23						
% Moisture	18.0	0.1	%		19.0			5.41	20	
Duplicate (P3A0904-DUP2)	**Source: 3A05012-05**			Prepared & Analyzed: 01/09/23						
% Moisture	10.0	0.1	%		13.0			26.1	20	R3
Duplicate (P3A0904-DUP3)	**Source: 3A05012-20**			Prepared & Analyzed: 01/09/23						
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P3A0904-DUP4)	**Source: 3A05012-30**			Prepared & Analyzed: 01/09/23						
% Moisture	9.0	0.1	%		9.0			0.00	20	

E Tech Environmental & Safety Solutions, Inc. [1]	Project: Quail Queen #002
13000 West County Road 100	Project Number: 15661
Odessa TX, 79765	Project Manager: Blake Estep

Notes and Definitions

ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
NPBEL C(	Chain of Custody was not generated at PBELAB
BULK	Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 1/10/2023

Brent Barron, Laboratory Director/Technical Director

PBELAB Permian Basin Environmental Lab, LP

1400 Rankin Hwy Midland Texas 79701 Phone: 432-686-7235

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Blake Estep
Company Name: Etech Environmental & Safety Solutions, Inc.
Company Address: P.O. Box 62228
City/State/Zip: Midland, Texas 79711
Sampler Signature: Delton Petty email: blake@etechenv.com

Project Name: Quail Queen #002
Project #: 15661 Project Loc:
Area: PO#: 15661

☒ Bill Etech

Report Format: STANDARD:☒ TRRP:☐ NPDES:☐

(lab use only)
ORDER #: 3A05005

LAB # (lab use only)	FIELD CODE	Start Depth	End Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 (8015M) 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semi volatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides	RUSH TAT(Pre-Schedule) 24, 48, 72 hrs	STANDARD TAT
1	Bottom Hole 3H	–	15"	1-3-23	11:00	1	☒								S	☒												☒
2	East Sidewall 1A	–	6"	1-3-23	11:30	1	☒								S	☒												☒

TCLP: ☐ ☐ ☐ ☐
TOTAL: ☐ ☐ ☐ ☐

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	1-5-23	12:35pm			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
				1/5/23	12:35

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
Sar by Sampler/Client Rep. ?	Y	N

Sar by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 4.9 °C 6.9 °C CFH CL

2 of 2

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

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 213005
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	5/3/2023