# Report Type: Closure Report 1RP-5324

| General Site Information: | | | | | | |
|---|---|---|---|---|---|---|
| ***Site:*** | **Hound Condor Tie-in** | | | | | |
| ***Company:*** | **EOG Resources** | | | | | |
| ***Section, Township and Range*** | **Unit L** | **Sec 30** | **T 25S** | **R 34E** | | |
| ***County:*** | **Lea County** | | | | | |
| ***GPS:*** | **32.09950** | | | **-103.51690** | | |
| ***Surface Owner:*** | Federal | | | | | |
| ***Directions:*** | From the intersection of Pipeline Rd & Battle Axe Rd in rural Lea County, travel northeast on Battle Axe Rd for 2.75 mi, turn northwest onto lease road for 0.60 mi, turn east onto lease road for 0.93 mi and arrive at location. | | | | | |

| Release Data: | |
|---|---|
| *Date Released:* | 12/28/2018 |
| *Type Release:* | Produced Water |
| *Source of Contamination:* | Riser Valve Gasket |
| *Fluid Released:* | 75 bbls water |
| *Fluids Recovered:* | 65 bbls water |

| Official Communication: | | | |
|---|---|---|---|
| *Name:* | James Kennedy | | Clair Gonzales |
| *Company:* | EOG Resources | | Tetra Tech |
| *Address:* | 5509 Champions Dr | | 901 W. Wall St. |
| | | | Ste 100 |
| *City:* | Midland Texas, 79706 | | Midland, Texas |
| *Phone number:* | (432) 258-4346 | | (432) 682-4559 |
| *Fax:* | | | |
| *Email:* | James_Kennedy@eogresources.com | | Clair.Gonzales@tetratech.com |

| Site Characterization | |
|---|---|
| ***Depth to Groundwater:*** | *50' below surface* |

| Recommended Remedial Action Levels (RRALs) | | | |
|---|---|---|---|
| ***Benzene*** | ***Total BTEX*** | ***TPH (GRO+DRO+MRO)*** | ***Chlorides*** |
| *10 mg/kg* | *50 mg/kg* | *100 mg/kg* | *600 mg/kg* |

TETRA TECH

April 19, 2019

Environmental Engineer Specialist
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

**Re: Closure Report for the EOG Resources, Hound/Condor Tie-in, Unit L, Section 30, Township 25 South, Range 34 East, Lea County, New Mexico.**
**1RP-5324**

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess a release that occurred at the Hound/Condor Tie-in, Unit L, Section 30, Township 25 South, Range 34 East, Lea County, New Mexico (Site). The spill site coordinates are 32.09950º, -103.51690º. The site location is shown on Figures 1 and 2.

## Background

According to the State of New Mexico C-141 Initial Report the release was discovered on December 28, 2018. Approximately 75 barrels of produced water was released due to a malfunctioning valve gasket. The release occurred at a riser in an area of pasture. A vacuum truck was dispatched to remove all free-standing fluids, recovering 65 barrels of produced water. The release impacted several areas ranging in size from approximately 20' X 25' to 25' x 65'. The initial C-141 Forms are included in Appendix A.

## Site Characterization

A site characterization was performed for the site and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a low karst potential area. The nearest well is listed in the New Mexico Office of the State Engineers website website in Section 29, Township 25 South, Range 34 East, approximately 1.32 miles southeast of the site, and has a reported depth to groundwater of 50 feet below ground surface. The groundwater data is shown in Appendix B.

## Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene,

Tetra Tech
4000 North Big Spring, Suite 401, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO + DRO + MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

**Remediation Activities**

Tetra Tech personnel were onsite from March 8 through March 18, 2019 to supervise the remediation activities. Three (3) areas were excavated to total depths between 1.5' to 2.0' below surface. Sixteen (16) bottom hole composite samples (Bottom Hole 1 to Bottom Hole 16) and eleven (11) sidewall composite samples (North Sidewalls 1, 2, and 3, South Sidewalls 1 and 2, East Sidewalls 1, 2, and 3, and West Sidewalls 1, 2, and 3) were collected every 200 square feet to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 1. The excavation depths and sample locations are shown in Figure 4.

Referring to Table 1, all collected confirmation samples showed benzene, total BTEX, TPH, and chloride concentrations below the RRAL's.

Approximately 298 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Revegetation Plan

The area will be seeded with a Bureau of Land Management (BLM) seed mixture for shallow sites in June 2019 in order to coincide with the rainy season in Southeastern New Mexico to aid in revegetation. Based on the soils at the site, the Bureau of Land Management (BLM) Seed Mixture 1 will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the BLM will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The BLM seed mixture details and corresponding pounds pure live seed per acre are included in Appendix D.

TETRA TECH

**Conclusion**

Based on the laboratory results and remediation activities performed EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Clair Gonzales,
Project Manager

cc: James Kennedy – EOG
Todd Wells - EOG
Jim Amos - BLM

# Tables

**Table 1**
**EOG**
**Hound Condor**
**Lea County, New Mexico**

| Sample ID | Sample Date | Sample Depth (ft) | BEB Sample Depth (ft) | Soil Status | | TPH (mg/kg) | | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | In-Situ | Removed | GRO | DRO | ORO | Total | | | | | | |
| Bottom Hole 1 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| Bottom Hole 2 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| Bottom Hole 3 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 80.0 |
| Bottom Hole 4 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 128 |
| Bottom Hole 5 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| Bottom Hole 6 | 3/8/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 160 |
| Bottom Hole 7 | 3/8/2019 | - | 1.5 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 64.0 |
| Bottom Hole 8 | 3/8/2019 | - | 1.5 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| Bottom Hole 9 | 3/11/2019 | - | 2.0 | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | 63.2 |
| Bottom Hole 10 | 3/11/2019 | - | 2.0 | X | | <14.9 | <14.9 | <14.9 | <14.9 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | 196 |
| Bottom Hole 11 | 3/11/2019 | - | 2.0 | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | 60.7 |
| Bottom Hole 12 | 3/11/2019 | - | 2.0 | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | 198 |
| Bottom Hole 13 | 3/18/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| Bottom Hole 14 | 3/18/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 80.0 |
| Bottom Hole 15 | 3/18/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 144 |
| Bottom Hole 16 | 3/18/2019 | - | 2.0 | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | <16.0 |
| North Sidewall #1 | 3/11/2019 | - | - | X | | <14.9 | <14.9 | <14.9 | <14.9 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | 17.0 |
| North Sidewall #2 | 3/8/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| North Sidewall #3 | 3/11/2019 | - | - | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00198 | <0.00198 | <0.00198 | <0.00198 | <0.00198 | 15.0 |
| South Sidewall #1 | 3/8/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 336 |
| South Sidewall #2 | 3/11/2019 | - | - | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00199 | <0.00199 | <0.00199 | <0.00199 | <0.00199 | 17.1 |
| East Sidewall #1 | 3/8/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 160 |
| East Sidewall #2 | 3/8/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| East Sidewall #3 | 3/11/2019 | - | - | X | | <15.0 | <15.0 | <15.0 | <15.0 | <0.00202 | <0.00202 | <0.00202 | <0.00202 | <0.00202 | 26.4 |
| West Sidewall #1 | 3/8/2019 | - | - | X | | <10.0 | 11.3 | <10.0 | 11.3 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 64.0 |
| West Sidewall #2 | 3/8/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 80.0 |
| West Sidewall #3 | 3/18/2019 | - | - | X | | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 96.0 |

# Figures


**LEGEND**

◉ SITE LOCATION

eog resources

FIGURE 1

HOUND/CONDOR TIE-IN
(32.09950°, -103.51690°)

OVERVIEW MAP

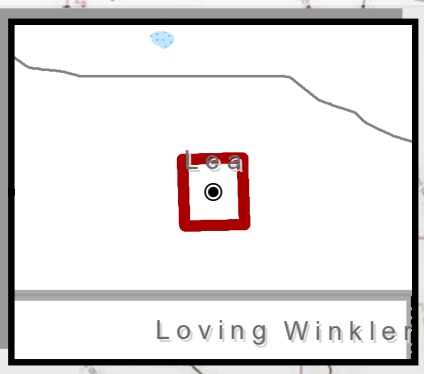
LEA COUNTY, NEW MEXICO

| | |
|---|---|
| Project : 212C-MD-01643 | |
| Date : 04/16/2019 | |
| File : H:\GIS\212C-MD-01643 | |

Sources: Esri, HERE, Garmin, U
Japan, METI, Esri China (Hong
OpenStreetMap contributors, and the GIS User Community



MAPPED BY: MISTI MORGAN




**OVERALL VIEW** 1:813,726

**HOUND/CONDOR TIE-IN**

Lea

0 2,000 4,000 Feet

1 inch = 2,200 feet

**LEGEND**

SITE LOCATION

eog resources

FIGURE 2

HOUND/CONDOR TIE-IN
(32.09950°, -103.51690°)

TOPOGRAPHIC MAP

LEA COUNTY, NEW MEXICO

Project : 212C-MD-01643

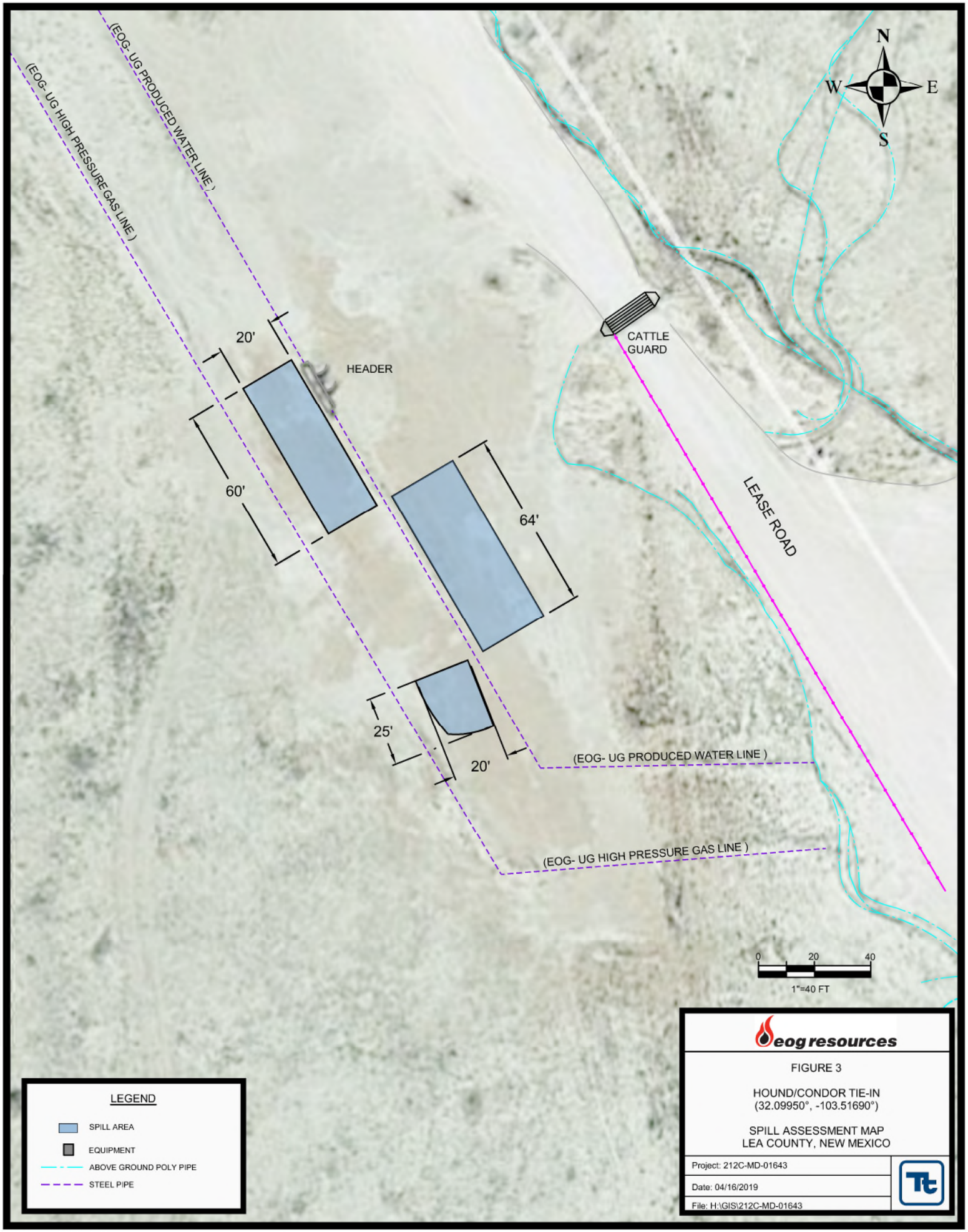
Date : 04/16/2019

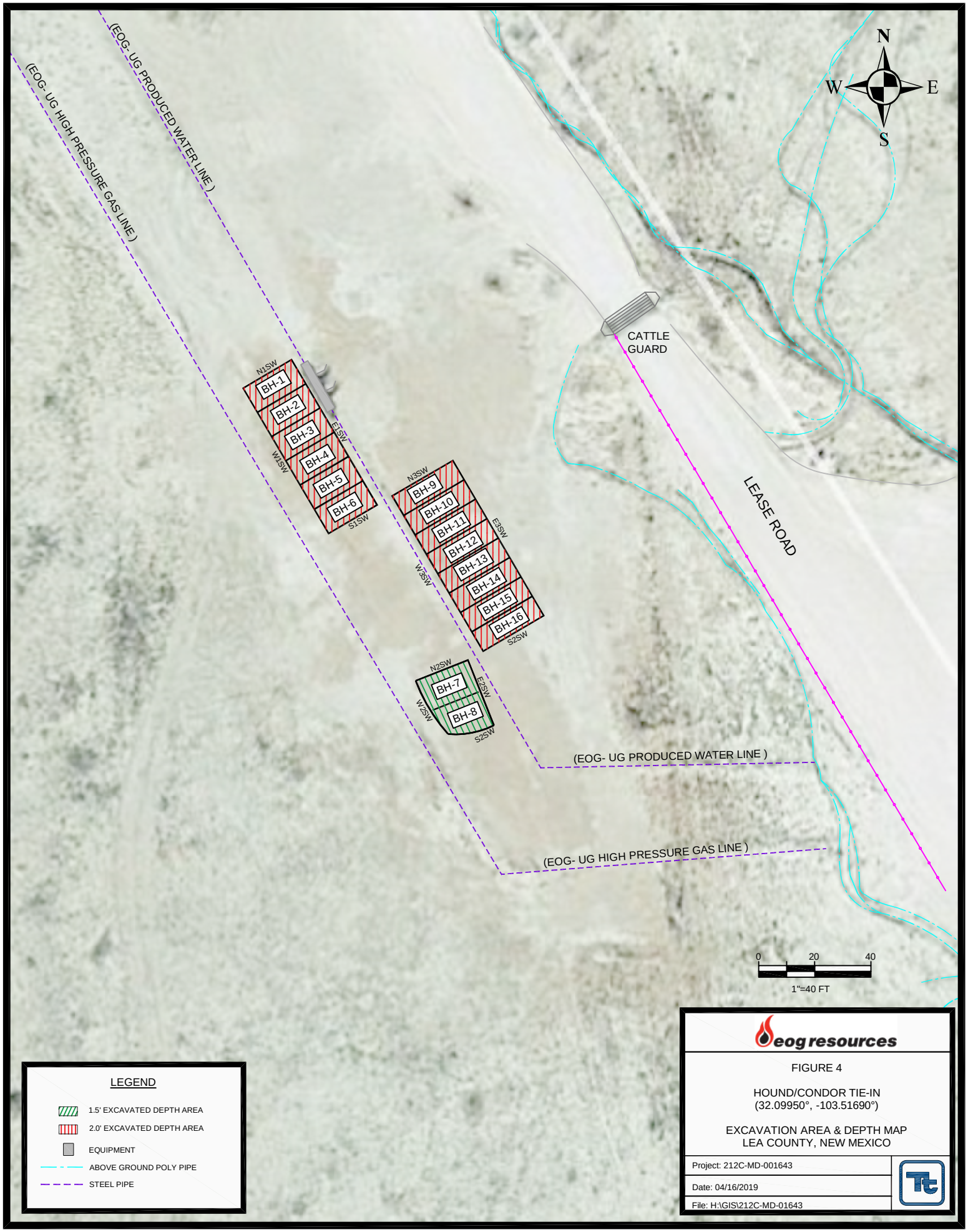
File : H:\GIS\212C-MD-01643





MAPPED BY: MISTI MORGAN


(EOG- UG PRODUCED WATER LINE )
(EOG- UG HIGH PRESSURE GAS LINE )
N
W
E
S
20'
HEADER
60'
64'
CATTLE GUARD
LEASE ROAD
25'
20'
(EOG- UG PRODUCED WATER LINE )
(EOG- UG HIGH PRESSURE GAS LINE )
0
20
40
1"=40 FT
LEGEND
SPILL AREA
EQUIPMENT
ABOVE GROUND POLY PIPE
STEEL PIPE
eog resources
FIGURE 3
HOUND/CONDOR TIE-IN
(32.09950°, -103.51690°)
SPILL ASSESSMENT MAP
LEA COUNTY, NEW MEXICO
Project: 212C-MD-01643
Date: 04/16/2019
File: H:\GIS\212C-MD-01643
Drawn By: MISTI MORGAN


(EOG- UG PRODUCED WATER LINE)
(EOG- UG HIGH PRESSURE GAS LINE)
N
W
E
S
CATTLE GUARD
LEASE ROAD
N1SW
BH-1
BH-2
BH-3
BH-4
BH-5
BH-6
E1SW
W1SW
S1SW
N3SW
BH-9
BH-10
BH-11
BH-12
BH-13
BH-14
BH-15
BH-16
E3SW
W3SW
S2SW
N2SW
BH-7
BH-8
E2SW
W2SW
S2SW
(EOG- UG PRODUCED WATER LINE )
(EOG- UG HIGH PRESSURE GAS LINE )
0
20
40
1"=40 FT
LEGEND
1.5' EXCAVATED DEPTH AREA
2.0' EXCAVATED DEPTH AREA
EQUIPMENT
ABOVE GROUND POLY PIPE
STEEL PIPE
eog resources
FIGURE 4
HOUND/CONDOR TIE-IN
(32.09950°, -103.51690°)
EXCAVATION AREA & DEPTH MAP
LEA COUNTY, NEW MEXICO
Project: 212C-MD-001643
Date: 04/16/2019
File: H:\GIS\212C-MD-01643

# Photos

EOG Resources
Hound/Condor Tie-in
Lea County, New Mexico

TETRA TECH


View North – Area of Bottom Hole 1 to Bottom Hole 6


View Southeast – Area of Bottom Hole 7 & 8

EOG Resources
Hound/Condor Tie-in
Lea County, New Mexico

TETRA TECH


View South – Area of Bottom Hole 9 to Bottom Hole 16

# Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

| | |
|---|---|
| Incident ID | NCH1903541789 |
| District RP | 1RP-5324 |
| Facility ID | fCH1903541153 |
| Application ID | pCH1903542103 |

# Release Notification

## Responsible Party

| | |
|---|---|
| Responsible Party: EOG Resources | OGRID: 7377 |
| Contact Name: Jamon Hohensee | Contact Telephone: 432-556-8074 |
| Contact email: jamon_hohensee@eogresources.com | Incident # NCH1903541789 HOUND/CONDOR TIE IN @ FCH1903541153 |
| Contact mailing address: 5509 Champions Dr. Midland TX 79706 | |

## Location of Release Source

Latitude 32.09950 Longitude -103.51690
*(NAD 83 in decimal degrees to 5 decimal places)*

| | |
|---|---|
| Site Name: Hound/Condor Tie in | Site Type: Pipeline |
| Date Release Discovered: 12/28/18 | API# *(if applicable)* |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| L | 30 | 25S | 34E | Lea |

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

## Nature and Volume of Release

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

| | | |
|---|---|---|
| ☐ Crude Oil | Volume Released (bbls) | Volume Recovered (bbls) |
| ☒ Produced Water | Volume Released (bbls) 75 | Volume Recovered (bbls) 65 |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | ☐ Yes ☐ No |
| ☐ Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| ☐ Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| ☐ Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |

Cause of Release: On 12/28/18 the pw riser was found to have a leak coming from malfunctioned valve gasket. Vacuum trucks were called out to recover fluid to draw down water in the riser and to recover fluids on the ground. The gasket was repaired and leak was stopped. An estimated 2,106 $ft^3$ was impacted with a soil porosity of .2 giving and estimated 75bbls of fluid released. Vacuum trucks recovered approx. 65bbls. The site will be cleaned according to OCD standards.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☒ Yes ☐ No | If YES, for what reason(s) does the responsible party consider this a major release?<br>Estimated volume released was greater than 25bbls |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?<br>Notice was given 1/4/19 to Christina Hernandez by email. | |

## Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
The free standing liquids were recovered by vacuum truck.

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

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

Printed Name: Jamon Hohensee Title: Environmental Rep

Signature: Jamon Hohensee Date: 1/4/19

email: jamon_hohensee@eogresources.com Telephone: 432-556-8074

**OCD Only**

Received by: Date:

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NCH1903541789 |
| 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 | NCH1903541789 |
| 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: James F Kennedy Title: Environmental Specilaist

Signature: James F Kennedy Date: 04/19/2019

email: james_kennedy@eogresources.com Telephone: 432-258-4346

**OCD Only**

Received by: Jocelyn Harimon Date: 06/08/2023

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NCH1903541789 |
| 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: James F Kennedy Title: Environmental Specialist

Signature: James F Kennedy Date: 04/19/2019

email: james_kennedy@eogresources.com Telephone: 432-258-4346

**OCD Only**

Received by: Jocelyn Harimon Date: 06/08/2023

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: Brittany Hall Date: 6/29/2023

Printed Name: Brittany Hall Title: Environmental Specialist

# Appendix B

# Water Well Data
## Average Depth to Groundwater (ft)
## EOG- Hound/Condor Tie in
## Lea County, New Mexico

**24 South 33 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 **24.6** | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 **208** | 24 **16.9** |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 **93.2** | 34 | 35 | 36 |

**24 South 34 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**24 South 35 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 **300** | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 **97** | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**25 South 33 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 172 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 140 | 12 200 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 **200** | 21 120 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 125 | 26 | 25 |
| 31 **257** | 32 | 33 | 34 | 35 | 36 |

**25 South 34 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 SITE | 29 **50** | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**25 South 35 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 **165** | 4 | 3 **108** | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 **230** | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 **218** | 22 | 23 | 24 |
| 30 **80** | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 33 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 **180** | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 34 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 35 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**88** New Mexico State Engineers Well Reports

**105** USGS Well Reports

**90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

Geology and Groundwater Resources of Eddy County, NM (Report 3)

**34** NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

**143** NMOCD Groundwater map well location

*New Mexico Office of the State Engineer*

# Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

| POD Number | Code | POD Sub-basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X | Y | Depth Well | Depth Water | Water Column |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C 02299 | | CUB | LE | 4 | 4 | 2 | 24 | 25S | 34E | 649417 | 3554478* | 350 | 300 | 50 |
| C 02314 | | CUB | LE | 2 | 4 | 2 | 15 | 25S | 34E | 646170 | 3556243* | 175 | 135 | 40 |
| C 02315 | | CUB | LE | 2 | 4 | 2 | 15 | 25S | 34E | 646170 | 3556243* | 175 | 135 | 40 |
| C 02316 | | CUB | LE | 3 | 4 | 3 | 29 | 25S | 34E | 642003 | 3551967* | 100 | 50 | 50 |
| C 02317 | | CUB | LE | 3 | 4 | 3 | 29 | 25S | 34E | 642003 | 3551967* | 100 | 50 | 50 |
| C 02401 | | CUB | LE | 2 | 2 | 1 | 01 | 25S | 34E | 648534 | 3559896* | 275 | 260 | 15 |

Average Depth to Water: **155 feet**

Minimum Depth: **50 feet**

Maximum Depth: **300 feet**

**Record Count:** 6

**Basin/County Search:**

**County:** Lea

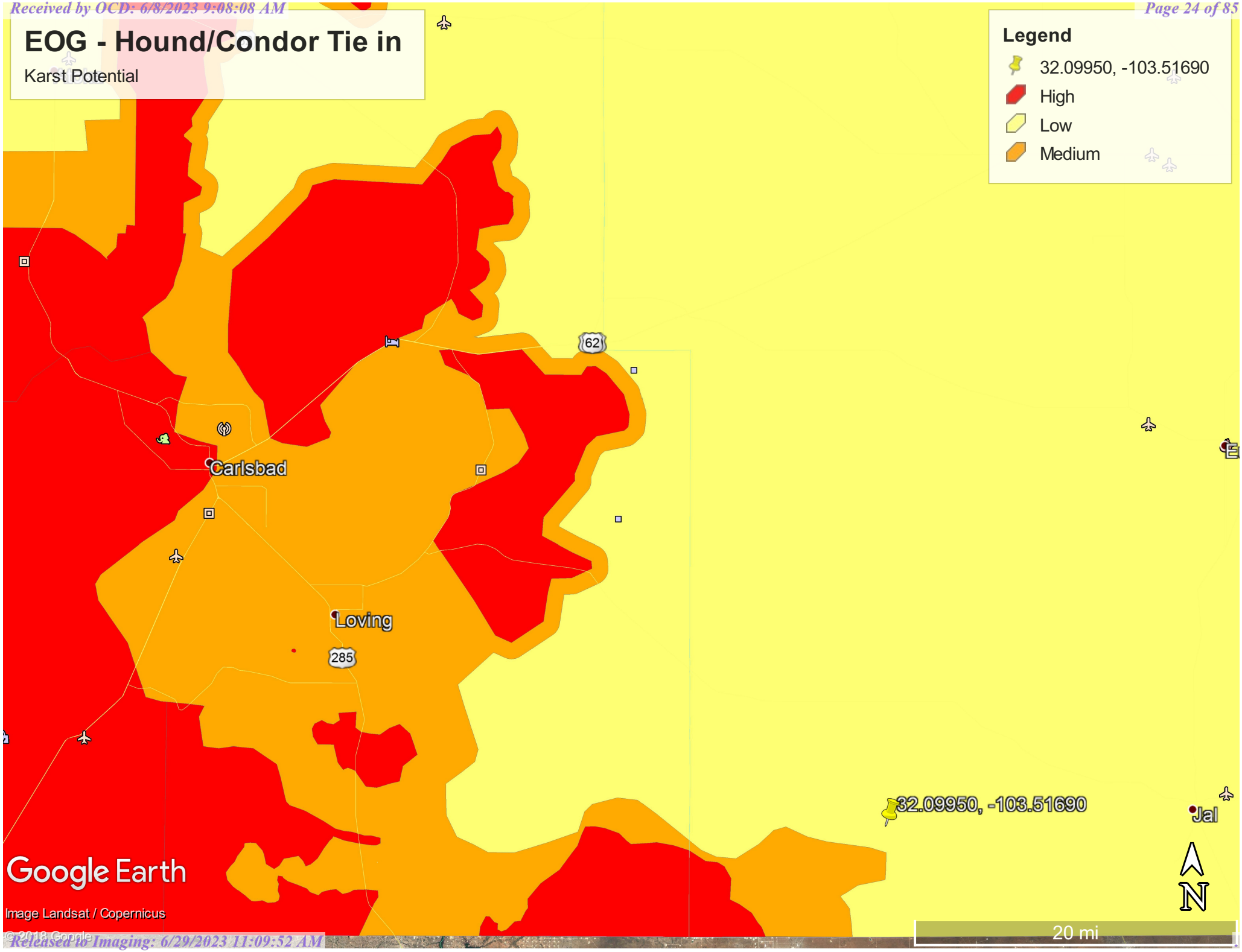
**PLSS Search:**

**Township:** 25S **Range:** 34E

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

# EOG - Hound/Condor Tie in

Karst Potential



# New Mexico NFHL Data


April 10, 2019

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

FEMA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

# Appendix C

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

March 11, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: HOUND CONDOR TIE IN

Enclosed are the results of analyses for samples received by the laboratory on 03/08/19 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #1 (2' BEB) (H900951-01)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *99.1 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 180 | 89.8 | 200 | 5.64 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 177 | 88.3 | 200 | 8.36 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *97.7 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *98.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #2 (2' BEB) (H900951-02)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *98.1 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 180 | 89.8 | 200 | 5.64 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 177 | 88.3 | 200 | 8.36 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *110 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *110 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #3 (2' BEB) (H900951-03)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *95.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **80.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/08/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/08/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/08/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *85.2 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *95.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #4 (2' BEB) (H900951-04)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *97.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **128** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *88.7 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *97.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #5 (2' BEB) (H900951-05)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *97.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *82.5 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *90.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #6 (2' BEB) (H900951-06)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *97.5 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **160** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *83.8 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *92.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #7 (1.5' BEB) (H900951-07)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.16 | 108 | 2.00 | 4.13 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.00 | 100 | 2.00 | 3.04 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.09 | 104 | 2.00 | 2.31 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.55 | 109 | 6.00 | 2.94 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *96.3 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *84.4 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *94.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #8 (1.5' BEB) (H900951-08)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *82.7 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *78.5 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *87.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: NORTH #2 SIDEWALL (H900951-09)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *84.4 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *87.5 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *96.9 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: EAST #1 SIDEWALL (H900951-10)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *81.6 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **160** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *82.7 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *91.9 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: EAST #2 SIDEWALL (H900951-11)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *86.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *84.6 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *91.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: SOUTH #1 SIDEWALL (H900951-12)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *82.7 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **336** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *82.2 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *89.2 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: WEST #1 SIDEWALL (H900951-13)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *85.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| **DRO >C10-C28*** | **11.3** | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *86.4 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *95.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/08/2019 | Sampling Date: | 03/08/2019 |
| Reported: | 03/11/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Jodi Henson |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: WEST #2 SIDEWALL (H900951-14)

**BTEX 8021B** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.19 | 109 | 2.00 | 6.18 | |
| Toluene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.26 | 113 | 2.00 | 4.40 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/11/2019 | ND | 2.20 | 110 | 2.00 | 6.55 | |
| Total Xylenes* | <0.150 | 0.150 | 03/11/2019 | ND | 6.16 | 103 | 6.00 | 5.41 | |
| Total BTEX | <0.300 | 0.300 | 03/11/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *82.8 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **80.0** | 16.0 | 03/09/2019 | ND | 432 | 108 | 400 | 3.64 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/09/2019 | ND | 193 | 96.7 | 200 | 3.78 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/09/2019 | ND | 181 | 90.7 | 200 | 18.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/09/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *83.1 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *89.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Notes and Definitions

| | |
|---|---|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| RPD | Relative Percent Difference |
| ** | Samples not received at proper temperature of 6°C or below. |
| *** | Insufficient time to reach temperature. |
| - | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |
| | Samples reported on an as received basis (wet) unless otherwise noted on report |

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Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Page 1 of

# Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG

Site Manager: CLAIR GONZALES

Project Name: HOUND - CONDOR TIE IN

Project Location (county, state): LEA CO, NM

Project #: 212C-MD-01643

Invoice to: EOG - JAMES KENNEDY

Receiving Laboratory: CARDINAL

Sampler Signature: CONNER M & TONY L.

Comments:

## ANALYSIS REQUEST (Circle or Specify Method No.)

| LAB # (LAB USE ONLY) | SAMPLE IDENTIFICATION | SAMPLING DATE | SAMPLING TIME | MATRIX: WATER | MATRIX: SOIL | PRESERVATIVE METHOD: HCL | PRESERVATIVE METHOD: $HNO_3$ | PRESERVATIVE METHOD: ICE | PRESERVATIVE METHOD: None | # CONTAINERS | FILTERED (Y/N) | BTEX 8021B / BTEX 8260B | TPH TX1005 (Ext to C35) | TPH 8015M (GRO - DRO - ORO - MRO) | PAH 8270C | Total Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC/MS Vol. 8260B / 624 | GC/MS Semi. Vol. 8270C/625 | PCB's 8082 / 608 | NORM | PLM (Asbestos) | Chloride | Chloride Sulfate TDS | General Water Chemistry (see attached list) | Anion/Cation Balance | | | | | Hold |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H900951 | | YEAR: 2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Bottom Hole #1 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 2 | Bottom Hole #2 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 3 | Bottom Hole #3 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 4 | Bottom Hole #4 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 5 | Bottom Hole #5 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 6 | Bottom Hole #6 (2' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 7 | Bottom Hole #7 (1.5' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| 8 | Bottom Hole #8 (1.5' BEB) | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |
| | ~~NORTH #1 SIDEWALL~~ | ~~3/8/19~~ | | ~~X~~ | | | ~~X~~ | | | ~~1~~ | ~~N~~ | ~~X~~ | | ~~X~~ | | | | | | | | | | | ~~X~~ | | | | | | | | | |
| 9 | North #2 sidewall | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | | |

Relinquished by: Conner Mochney Date: 3/8/19 Time: 1450

Received by: Jodi Henson Date: 3/8/19 Time: 14:50

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 4.8°C

#97

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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**Analysis Request of Chain of Custody Record**

Page 2 of

# Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

| | |
|---|---|
| **Client Name:** EOG | **Site Manager:** CLAIR GONZALES |
| **Project Name:** HOUND - CONDOR TIE IN | |
| **Project Location:** (county, state) LEA CO, NM | **Project #:** 212C-MD-01643 |
| **Invoice to:** EOG - JAMES KENNEDY | |
| **Receiving Laboratory:** CARDINAL | **Sampler Signature:** CONNER M & TONY L |
| **Comments:** | |

**ANALYSIS REQUEST**
(Circle or Specify Method No.)

| LAB # (LAB USE ONLY) | SAMPLE IDENTIFICATION | SAMPLING DATE | SAMPLING TIME | MATRIX: WATER | MATRIX: SOIL | PRESERVATIVE METHOD: HCL | PRESERVATIVE METHOD: $HNO_3$ | PRESERVATIVE METHOD: ICE | PRESERVATIVE METHOD: None | # CONTAINERS | FILTERED (Y/N) | BTEX 8021B BTEX 8260B | TPH TX1005 (Ext to C35) | TPH 8015M ( GRO - DRO - ORO - MRO) | PAH 8270C | Total Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC/MS Vol. 8260B / 624 | GC/MS Semi. Vol. 8270C/625 | PCB's 8082 / 608 | NORM | PLM (Asbestos) | Chloride | Chloride Sulfate TDS | General Water Chemistry (see attached list) | Anion/Cation Balance | | | | Hold |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H900951 | | YEAR: 2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | EAST 1 SIDEWALL | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | |
| 11 | EAST 2 SIDEWALL | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | |
| 12 | SOUTH 1 SIDEWALL | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | |
| 13 | WEST 1 SIDEWALL | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | |
| 14 | WEST 2 SIDEWALL | 3/8/19 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | X | | | | | | | | |

| | | | |
|---|---|---|---|
| Relinquished by: Conner Moehring | Date: 3/8/19 | Time: 14:50 | Received by: Jodi Henson |
| Relinquished by: | Date: | Time: | Received by: |
| Relinquished by: | Date: | Time: | Received by: |

**LAB USE ONLY**
Sample Temperature 4.8°C
#97

**REMARKS:**
- ☐ STANDARD
- ☒ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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# Certificate of Analysis Summary 617268

## Tetra Tech- Midland, Midland, TX

## Project Name: EOG-Hound-Condor



**Project Id:** 212C-MD-01643
**Contact:** Clair Gonzales
**Project Location:** Lea County, NM

**Date Received in Lab:** Tue Mar-12-19 10:00 am
**Report Date:** 13-MAR-19
**Project Manager:** Jessica Kramer

| *Analysis Requested* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 617268-001 | | 617268-002 | | 617268-003 | | 617268-004 | | 617268-005 | | 617268-006 | |
| | ***Field Id:*** | Bottom Hole 9 (2' BEB) | | Bottom Hole 10 (2' BEB) | | Bottom Hole 11 (2' BEB) | | Bottom Hole 12 (2' BEB) | | North 1 Sidewall | | North 3 Sidewall | |
| | ***Depth:*** | | | | | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | ***Sampled:*** | Mar-11-19 00:00 | | Mar-11-19 00:00 | | Mar-11-19 00:00 | | Mar-11-19 00:00 | | Mar-11-19 00:00 | | Mar-11-19 00:00 | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Mar-12-19 10:30 | | Mar-12-19 10:30 | | Mar-12-19 10:30 | | Mar-12-19 10:30 | | Mar-12-19 10:30 | | Mar-12-19 10:30 | |
| | ***Analyzed:*** | Mar-13-19 01:04 | | Mar-13-19 01:23 | | Mar-13-19 01:42 | | Mar-13-19 02:01 | | Mar-13-19 02:20 | | Mar-13-19 02:39 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| Toluene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| Ethylbenzene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| m,p-Xylenes | | <0.00402 | 0.00402 | <0.00399 | 0.00399 | <0.00402 | 0.00402 | <0.00402 | 0.00402 | <0.00400 | 0.00400 | <0.00396 | 0.00396 |
| o-Xylene | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| Total Xylenes | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| Total BTEX | | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00201 | 0.00201 | <0.00201 | 0.00201 | <0.00200 | 0.00200 | <0.00198 | 0.00198 |
| **Chloride by EPA 300** | ***Extracted:*** | Mar-12-19 15:30 | | Mar-12-19 15:30 | | Mar-12-19 15:30 | | Mar-12-19 15:30 | | Mar-12-19 15:30 | | Mar-12-19 15:30 | |
| | ***Analyzed:*** | Mar-12-19 16:28 | | Mar-12-19 17:00 | | Mar-12-19 17:11 | | Mar-12-19 18:08 | | Mar-12-19 18:18 | | Mar-12-19 18:50 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 63.2 | 4.97 | 196 | 4.97 | 60.7 | 4.98 | 198 | 4.99 | 17.0 | 5.04 | 15.0 | 5.01 |
| **TPH By SW8015 Mod** | ***Extracted:*** | Mar-12-19 10:00 | | Mar-12-19 10:00 | | Mar-12-19 10:00 | | Mar-12-19 10:00 | | Mar-12-19 10:00 | | Mar-12-19 10:00 | |
| | ***Analyzed:*** | Mar-12-19 12:37 | | Mar-12-19 13:35 | | Mar-12-19 13:55 | | Mar-12-19 14:15 | | Mar-12-19 14:35 | | Mar-12-19 14:54 | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Gasoline Range Hydrocarbons (GRO) | | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 |
| Diesel Range Organics (DRO) | | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 |
| Motor Oil Range Hydrocarbons (MRO) | | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 |
| Total TPH | | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 | <15.0 | 15.0 | <14.9 | 14.9 | <15.0 | 15.0 |



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

Jessica Kramer
Project Assistant

# Certificate of Analysis Summary 617268

## Tetra Tech- Midland, Midland, TX

## Project Name: EOG-Hound-Condor



**Project Id:** 212C-MD-01643
**Contact:** Clair Gonzales
**Project Location:** Lea County, NM

**Date Received in Lab:** Tue Mar-12-19 10:00 am
**Report Date:** 13-MAR-19
**Project Manager:** Jessica Kramer

| *Analysis Requested* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ***Lab Id:*** | 617268-007 | | 617268-008 | | | | | |
| | ***Field Id:*** | East 3 Sidewall | | South 2 Sidewall | | | | | |
| | ***Depth:*** | | | | | | | | |
| | ***Matrix:*** | SOIL | | SOIL | | | | | |
| | ***Sampled:*** | Mar-11-19 00:00 | | Mar-11-19 00:00 | | | | | |
| **BTEX by EPA 8021B** | ***Extracted:*** | Mar-12-19 10:30 | | Mar-12-19 10:30 | | | | | |
| | ***Analyzed:*** | Mar-13-19 02:58 | | Mar-13-19 03:17 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Benzene | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| Toluene | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| Ethylbenzene | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| m,p-Xylenes | | <0.00403 | 0.00403 | <0.00398 | 0.00398 | | | | |
| o-Xylene | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| Total Xylenes | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| Total BTEX | | <0.00202 | 0.00202 | <0.00199 | 0.00199 | | | | |
| **Chloride by EPA 300** | ***Extracted:*** | Mar-12-19 15:30 | | Mar-12-19 15:30 | | | | | |
| | ***Analyzed:*** | Mar-12-19 19:01 | | Mar-12-19 19:12 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Chloride | | 26.4 | 5.00 | 17.1 | 5.00 | | | | |
| **TPH By SW8015 Mod** | ***Extracted:*** | Mar-12-19 10:00 | | Mar-12-19 10:00 | | | | | |
| | ***Analyzed:*** | Mar-12-19 15:14 | | Mar-12-19 15:34 | | | | | |
| | ***Units/RL:*** | mg/kg | RL | mg/kg | RL | | | | |
| Gasoline Range Hydrocarbons (GRO) | | <15.0 | 15.0 | <15.0 | 15.0 | | | | |
| Diesel Range Organics (DRO) | | <15.0 | 15.0 | <15.0 | 15.0 | | | | |
| Motor Oil Range Hydrocarbons (MRO) | | <15.0 | 15.0 | <15.0 | 15.0 | | | | |
| Total TPH | | <15.0 | 15.0 | <15.0 | 15.0 | | | | |



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

Jessica Kramer
Project Assistant

# Analytical Report 617268

## for

## Tetra Tech- Midland

**Project Manager: Clair Gonzales**

**EOG-Hound-Condor**

**212C-MD-01643**

**13-MAR-19**

Collected By: Client

**1211 W. Florida Ave**
**Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

13-MAR-19

Project Manager: **Clair Gonzales**
**Tetra Tech- Midland**
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **617268**
**EOG-Hound-Condor**
Project Address: Lea County, NM

**Clair Gonzales**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 617268. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 617268 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

**Jessica Kramer**
Project Assistant

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***
*Certified and approved by numerous States and Agencies.*
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

# Sample Cross Reference 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| Bottom Hole 9 (2' BEB) | S | 03-11-19 00:00 | | 617268-001 |
| Bottom Hole 10 (2' BEB) | S | 03-11-19 00:00 | | 617268-002 |
| Bottom Hole 11 (2' BEB) | S | 03-11-19 00:00 | | 617268-003 |
| Bottom Hole 12 (2' BEB) | S | 03-11-19 00:00 | | 617268-004 |
| North 1 Sidewall | S | 03-11-19 00:00 | | 617268-005 |
| North 3 Sidewall | S | 03-11-19 00:00 | | 617268-006 |
| East 3 Sidewall | S | 03-11-19 00:00 | | 617268-007 |
| South 2 Sidewall | S | 03-11-19 00:00 | | 617268-008 |

# CASE NARRATIVE



***Client Name: Tetra Tech- Midland***

***Project Name: EOG-Hound-Condor***

Project ID: *212C-MD-01643*
Work Order Number(s): *617268*

Report Date: *13-MAR-19*
Date Received: *03/12/2019*

**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3081929 Chloride by EPA 300

Lab Sample ID 617268-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 617268-001, -002, -003, -004, -005, -006, -007, -008.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3081978 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 617268-008.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **Bottom Hole 9 (2' BEB)** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-001 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **63.2** | 4.97 | mg/kg | 03.12.19 16.28 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 12.37 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 12.37 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 12.37 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 12.37 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 94 | % | 70-135 | 03.12.19 12.37 | |
| o-Terphenyl | 84-15-1 | 93 | % | 70-135 | 03.12.19 12.37 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **Bottom Hole 9 (2' BEB)** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-001 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 03.13.19 01.04 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.04 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 104 | % | 70-130 | 03.13.19 01.04 | |
| 1,4-Difluorobenzene | 540-36-3 | 109 | % | 70-130 | 03.13.19 01.04 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **Bottom Hole 10 (2' BEB)** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-002 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **196** | 4.97 | mg/kg | 03.12.19 17.00 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <14.9 | 14.9 | mg/kg | 03.12.19 13.35 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <14.9 | 14.9 | mg/kg | 03.12.19 13.35 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <14.9 | 14.9 | mg/kg | 03.12.19 13.35 | U | 1 |
| Total TPH | PHC635 | <14.9 | 14.9 | mg/kg | 03.12.19 13.35 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 96 | % | 70-135 | 03.12.19 13.35 | |
| o-Terphenyl | 84-15-1 | 97 | % | 70-135 | 03.12.19 13.35 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **Bottom Hole 10 (2' BEB)** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-002 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 03.13.19 01.23 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 03.13.19 01.23 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 109 | % | 70-130 | 03.13.19 01.23 | |
| 1,4-Difluorobenzene | 540-36-3 | 109 | % | 70-130 | 03.13.19 01.23 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **Bottom Hole 11 (2' BEB)** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-003 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **60.7** | 4.98 | mg/kg | 03.12.19 17.11 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 13.55 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 13.55 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 13.55 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 13.55 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 90 | % | 70-135 | 03.12.19 13.55 | |
| o-Terphenyl | 84-15-1 | 86 | % | 70-135 | 03.12.19 13.55 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **Bottom Hole 11 (2' BEB)** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-003 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 03.13.19 01.42 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 03.13.19 01.42 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 121 | % | 70-130 | 03.13.19 01.42 | |
| 1,4-Difluorobenzene | 540-36-3 | 106 | % | 70-130 | 03.13.19 01.42 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **Bottom Hole 12 (2' BEB)** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-004 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **198** | 4.99 | mg/kg | 03.12.19 18.08 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 14.15 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 14.15 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 14.15 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 14.15 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 96 | % | 70-135 | 03.12.19 14.15 | |
| o-Terphenyl | 84-15-1 | 95 | % | 70-135 | 03.12.19 14.15 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **Bottom Hole 12 (2' BEB)** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-004 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 03.13.19 02.01 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 03.13.19 02.01 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 106 | % | 70-130 | 03.13.19 02.01 | |
| 1,4-Difluorobenzene | 540-36-3 | 110 | % | 70-130 | 03.13.19 02.01 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **North 1 Sidewall** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-005 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **17.0** | 5.04 | mg/kg | 03.12.19 18.18 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <14.9 | 14.9 | mg/kg | 03.12.19 14.35 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <14.9 | 14.9 | mg/kg | 03.12.19 14.35 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <14.9 | 14.9 | mg/kg | 03.12.19 14.35 | U | 1 |
| Total TPH | PHC635 | <14.9 | 14.9 | mg/kg | 03.12.19 14.35 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 105 | % | 70-135 | 03.12.19 14.35 | |
| o-Terphenyl | 84-15-1 | 101 | % | 70-135 | 03.12.19 14.35 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **North 1 Sidewall** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-005 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00400 | 0.00400 | mg/kg | 03.13.19 02.20 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 03.13.19 02.20 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 110 | % | 70-130 | 03.13.19 02.20 | |
| 4-Bromofluorobenzene | 460-00-4 | 108 | % | 70-130 | 03.13.19 02.20 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **North 3 Sidewall** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-006 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **15.0** | 5.01 | mg/kg | 03.12.19 18.50 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 14.54 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 14.54 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 14.54 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 14.54 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 90 | % | 70-135 | 03.12.19 14.54 | |
| o-Terphenyl | 84-15-1 | 85 | % | 70-135 | 03.12.19 14.54 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **North 3 Sidewall** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-006 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |
| Toluene | 108-88-3 | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00396 | 0.00396 | mg/kg | 03.13.19 02.39 | U | 1 |
| o-Xylene | 95-47-6 | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |
| Total BTEX | | <0.00198 | 0.00198 | mg/kg | 03.13.19 02.39 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 106 | % | 70-130 | 03.13.19 02.39 | |
| 1,4-Difluorobenzene | 540-36-3 | 110 | % | 70-130 | 03.13.19 02.39 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **East 3 Sidewall** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-007 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **26.4** | 5.00 | mg/kg | 03.12.19 19.01 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 15.14 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 15.14 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 15.14 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 15.14 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 93 | % | 70-135 | 03.12.19 15.14 | |
| o-Terphenyl | 84-15-1 | 91 | % | 70-135 | 03.12.19 15.14 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **East 3 Sidewall** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-007 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |
| Toluene | 108-88-3 | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00403 | 0.00403 | mg/kg | 03.13.19 02.58 | U | 1 |
| o-Xylene | 95-47-6 | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |
| Total BTEX | | <0.00202 | 0.00202 | mg/kg | 03.13.19 02.58 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 540-36-3 | 111 | % | 70-130 | 03.13.19 02.58 | |
| 4-Bromofluorobenzene | 460-00-4 | 106 | % | 70-130 | 03.13.19 02.58 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

Sample Id: **South 2 Sidewall** Matrix: Soil Date Received:03.12.19 10.00

Lab Sample Id: 617268-008 Date Collected: 03.11.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.12.19 15.30 Basis: Wet Weight

Seq Number: 3081929

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| **Chloride** | 16887-00-6 | **17.1** | 5.00 | mg/kg | 03.12.19 19.12 | | 1 |

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.12.19 10.00 Basis: Wet Weight

Seq Number: 3081984

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | PHC610 | <15.0 | 15.0 | mg/kg | 03.12.19 15.34 | U | 1 |
| Diesel Range Organics (DRO) | C10C28DRO | <15.0 | 15.0 | mg/kg | 03.12.19 15.34 | U | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | <15.0 | 15.0 | mg/kg | 03.12.19 15.34 | U | 1 |
| Total TPH | PHC635 | <15.0 | 15.0 | mg/kg | 03.12.19 15.34 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 111-85-3 | 91 | % | 70-135 | 03.12.19 15.34 | |
| o-Terphenyl | 84-15-1 | 85 | % | 70-135 | 03.12.19 15.34 | |

# Certificate of Analytical Results 617268

## Tetra Tech- Midland, Midland, TX

EOG-Hound-Condor

| | | | | | |
|---|---|---|---|---|---|
| Sample Id: | **South 2 Sidewall** | Matrix: | Soil | Date Received: | 03.12.19 10.00 |
| Lab Sample Id: | 617268-008 | Date Collected: | 03.11.19 00.00 | | |
| Analytical Method: | BTEX by EPA 8021B | | | Prep Method: | SW5030B |
| Tech: | SCM | | | % Moisture: | |
| Analyst: | SCM | Date Prep: | 03.12.19 10.30 | Basis: | Wet Weight |
| Seq Number: | 3081978 | | | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|---|---|---|---|---|---|---|---|
| Benzene | 71-43-2 | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |
| Toluene | 108-88-3 | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00398 | 0.00398 | mg/kg | 03.13.19 03.17 | U | 1 |
| o-Xylene | 95-47-6 | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |
| Total BTEX | | <0.00199 | 0.00199 | mg/kg | 03.13.19 03.17 | U | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 138 | % | 70-130 | 03.13.19 03.17 | ** |
| 1,4-Difluorobenzene | 540-36-3 | 104 | % | 70-130 | 03.13.19 03.17 | |

# Flagging Criteria

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

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

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

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

**F** RPD exceeded lab control limits.

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

**U** Analyte was not detected.

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

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

**K** Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

# QC Summary 617268



## Tetra Tech- Midland

EOG-Hound-Condor

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3081929 — Matrix: Solid — Date Prep: 03.12.19
MB Sample Id: 7673452-1-BLK — LCS Sample Id: 7673452-1-BKS — LCSD Sample Id: 7673452-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1.12 | 250 | 254 | 102 | 260 | 104 | 90-110 | 2 | 20 | mg/kg | 03.12.19 16:07 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3081929 — Matrix: Soil — Date Prep: 03.12.19
Parent Sample Id: 617103-003 — MS Sample Id: 617103-003 S — MSD Sample Id: 617103-003 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 34.1 | 250 | 271 | 95 | 265 | 92 | 90-110 | 2 | 20 | mg/kg | 03.12.19 19:54 | |

**Analytical Method:** Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3081929 — Matrix: Soil — Date Prep: 03.12.19
Parent Sample Id: 617268-001 — MS Sample Id: 617268-001 S — MSD Sample Id: 617268-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 63.2 | 249 | 348 | 114 | 341 | 112 | 90-110 | 2 | 20 | mg/kg | 03.12.19 16:39 | X |

**Analytical Method:** TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081984 — Matrix: Solid — Date Prep: 03.12.19
MB Sample Id: 7673482-1-BLK — LCS Sample Id: 7673482-1-BKS — LCSD Sample Id: 7673482-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | <8.00 | 1000 | 1010 | 101 | 1010 | 101 | 70-135 | 0 | 20 | mg/kg | 03.12.19 11:57 | |
| Diesel Range Organics (DRO) | <8.13 | 1000 | 1020 | 102 | 1040 | 104 | 70-135 | 2 | 20 | mg/kg | 03.12.19 11:57 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 93 | | 119 | | 121 | | 70-135 | % | 03.12.19 11:57 |
| o-Terphenyl | 95 | | 107 | | 113 | | 70-135 | % | 03.12.19 11:57 |

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

# QC Summary 617268



## Tetra Tech- Midland

EOG-Hound-Condor

**Analytical Method:** TPH By SW8015 Mod | Prep Method: TX1005P
Seq Number: 3081984 | Matrix: Soil | Date Prep: 03.12.19
Parent Sample Id: 617268-001 | MS Sample Id: 617268-001 S | MSD Sample Id: 617268-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Hydrocarbons (GRO) | <8.00 | 1000 | 1020 | 102 | 1020 | 102 | 70-135 | 0 | 20 | mg/kg | 03.12.19 12:56 | |
| Diesel Range Organics (DRO) | <8.13 | 1000 | 1030 | 103 | 1040 | 104 | 70-135 | 1 | 20 | mg/kg | 03.12.19 12:56 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1-Chlorooctane | 113 | | 115 | | 70-135 | % | 03.12.19 12:56 |
| o-Terphenyl | 98 | | 99 | | 70-135 | % | 03.12.19 12:56 |

**Analytical Method:** BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081978 | Matrix: Solid | Date Prep: 03.12.19
MB Sample Id: 7673444-1-BLK | LCS Sample Id: 7673444-1-BKS | LCSD Sample Id: 7673444-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.000385 | 0.100 | 0.107 | 107 | 0.108 | 108 | 70-130 | 1 | 35 | mg/kg | 03.12.19 23:12 | |
| Toluene | <0.000456 | 0.100 | 0.0967 | 97 | 0.0979 | 98 | 70-130 | 1 | 35 | mg/kg | 03.12.19 23:12 | |
| Ethylbenzene | <0.000565 | 0.100 | 0.0938 | 94 | 0.0951 | 95 | 70-130 | 1 | 35 | mg/kg | 03.12.19 23:12 | |
| m,p-Xylenes | <0.00101 | 0.200 | 0.189 | 95 | 0.192 | 96 | 70-130 | 2 | 35 | mg/kg | 03.12.19 23:12 | |
| o-Xylene | <0.000344 | 0.100 | 0.0926 | 93 | 0.0940 | 94 | 70-130 | 2 | 35 | mg/kg | 03.12.19 23:12 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 109 | | 103 | | 102 | | 70-130 | % | 03.12.19 23:12 |
| 4-Bromofluorobenzene | 101 | | 95 | | 95 | | 70-130 | % | 03.12.19 23:12 |

**Analytical Method:** BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081978 | Matrix: Soil | Date Prep: 03.12.19
Parent Sample Id: 617268-001 | MS Sample Id: 617268-001 S | MSD Sample Id: 617268-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.000386 | 0.100 | 0.102 | 102 | 0.0993 | 100 | 70-130 | 3 | 35 | mg/kg | 03.12.19 23:50 | |
| Toluene | <0.000457 | 0.100 | 0.0925 | 93 | 0.0892 | 90 | 70-130 | 4 | 35 | mg/kg | 03.12.19 23:50 | |
| Ethylbenzene | <0.000566 | 0.100 | 0.0891 | 89 | 0.0858 | 86 | 70-130 | 4 | 35 | mg/kg | 03.12.19 23:50 | |
| m,p-Xylenes | <0.00102 | 0.200 | 0.180 | 90 | 0.173 | 87 | 70-130 | 4 | 35 | mg/kg | 03.12.19 23:50 | |
| o-Xylene | <0.000345 | 0.100 | 0.0884 | 88 | 0.0848 | 85 | 70-130 | 4 | 35 | mg/kg | 03.12.19 23:50 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|---|---|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 104 | | 105 | | 70-130 | % | 03.12.19 23:50 |
| 4-Bromofluorobenzene | 99 | | 98 | | 70-130 | % | 03.12.19 23:50 |

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

**Analysis Request of Chain of Custody Record**

617268

Page 1 of 1

# Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

| | |
|---|---|
| **Client Name:** EOG | **Site Manager:** Clair Gonzales |
| **Project Name:** Hound-Condor | |
| **Project Location: (county, state)** Lea County, NM | **Project #:** 212C-MD-01643 |
| **Invoice to:** EOG: James Kennedy | |
| **Receiving Laboratory:** Xenco Midland, TX | **Sampler Signature:** Stephen Reyes |
| **Comments:** | |

**ANALYSIS REQUEST**
(Circle or Specify Method No.)

| LAB # (LAB USE ONLY) | SAMPLE IDENTIFICATION | SAMPLING YEAR: 2018 DATE | SAMPLING TIME | MATRIX WATER | MATRIX SOIL | PRESERVATIVE METHOD HCL | PRESERVATIVE METHOD $HNO_3$ | PRESERVATIVE METHOD ICE | PRESERVATIVE METHOD None | # CONTAINERS | FILTERED (Y/N) | BTEX 8021B BTEX 8260B | TPH TX1005 (Ext to C35) | TPH 8015M ( GRO - DRO - ORO - MRO) | PAH 8270C | Total Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC/MS Vol. 8260B / 624 | GC/MS Semi. Vol. 8270C/625 | PCB's 8082 / 608 | NORM | PLM (Asbestos) | Chloride | Chloride Sulfate TDS | General Water Chemistry (see attached list) | Anion/Cation Balance | | | | | Hold |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bottom Hole 9 (2' BEB) | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | Bottom Hole 10 (2' BEB) | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | Bottom Hole 11 (2' BEB) | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | Bottom Hole 12 (2' BEB) | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | North 1 Sidewall | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | North 3 Sidewall | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | East 3 Sidewall | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | South 2 Sidewall | 3/11/2019 | | | X | | | X | | 1 | N | X | | X | | | | | | | | | | | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| Relinquished by: | Date: 3-12-19 | Time: 1000 | Received by: 3/12/19 |
| Relinquished by: | Date: | Time: | Received by: |
| Relinquished by: | Date: | Time: | Received by: |

**LAB USE ONLY**

Sample Temperature
0.3/0.2
-0.1/0

**REMARKS:**

- ☐ STANDARD
- ☑ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

**Client:** Tetra Tech- Midland

**Date/ Time Received:** 03/12/2019 10:00:00 AM

**Work Order #:** 617268

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

**Temperature Measuring device used : R8**

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

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

Analyst: PH Device/Lot#:

**Checklist completed by:** Brianna Teel Date: 03/12/2019

Brianna Teel

**Checklist reviewed by:** Jessica Kramer Date: 03/12/2019

Jessica Kramer

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

March 19, 2019

CLAIR GONZALES

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: HOUND CONDOR TIE IN

Enclosed are the results of analyses for samples received by the laboratory on 03/18/19 12:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/18/2019 | Sampling Date: | 03/18/2019 |
| Reported: | 03/19/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Tamara Oldaker |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #13 (2' BEB) (H901028-01)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/19/2019 | ND | 2.08 | 104 | 2.00 | 0.400 | |
| Toluene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.92 | 95.9 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.97 | 98.4 | 2.00 | 1.39 | |
| Total Xylenes* | <0.150 | 0.150 | 03/19/2019 | ND | 5.99 | 99.8 | 6.00 | 0.300 | |
| Total BTEX | <0.300 | 0.300 | 03/19/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *94.2 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 03/19/2019 | ND | 432 | 108 | 400 | 0.00 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/18/2019 | ND | 207 | 103 | 200 | 4.90 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/18/2019 | ND | 204 | 102 | 200 | 7.04 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/18/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *105 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *105 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/18/2019 | Sampling Date: | 03/18/2019 |
| Reported: | 03/19/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Tamara Oldaker |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #14 (2' BEB) (H901028-02)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/19/2019 | ND | 2.08 | 104 | 2.00 | 0.400 | |
| Toluene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.92 | 95.9 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.97 | 98.4 | 2.00 | 1.39 | |
| Total Xylenes* | <0.150 | 0.150 | 03/19/2019 | ND | 5.99 | 99.8 | 6.00 | 0.300 | |
| Total BTEX | <0.300 | 0.300 | 03/19/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *93.4 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **80.0** | 16.0 | 03/19/2019 | ND | 432 | 108 | 400 | 0.00 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/18/2019 | ND | 207 | 103 | 200 | 4.90 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/18/2019 | ND | 204 | 102 | 200 | 7.04 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/18/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *91.7 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *92.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/18/2019 | Sampling Date: | 03/18/2019 |
| Reported: | 03/19/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Tamara Oldaker |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #15 (2' BEB) (H901028-03)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/19/2019 | ND | 2.08 | 104 | 2.00 | 0.400 | |
| Toluene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.92 | 95.9 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.97 | 98.4 | 2.00 | 1.39 | |
| Total Xylenes* | <0.150 | 0.150 | 03/19/2019 | ND | 5.99 | 99.8 | 6.00 | 0.300 | |
| Total BTEX | <0.300 | 0.300 | 03/19/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *93.3 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **144** | 16.0 | 03/19/2019 | ND | 432 | 108 | 400 | 0.00 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/18/2019 | ND | 207 | 103 | 200 | 4.90 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/18/2019 | ND | 204 | 102 | 200 | 7.04 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/18/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *102 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *102 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/18/2019 | Sampling Date: | 03/18/2019 |
| Reported: | 03/19/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Tamara Oldaker |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: BOTTOM HOLE #16 (2' BEB) (H901028-04)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/19/2019 | ND | 2.08 | 104 | 2.00 | 0.400 | |
| Toluene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.92 | 95.9 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.97 | 98.4 | 2.00 | 1.39 | |
| Total Xylenes* | <0.150 | 0.150 | 03/19/2019 | ND | 5.99 | 99.8 | 6.00 | 0.300 | |
| Total BTEX | <0.300 | 0.300 | 03/19/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *93.0 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <16.0 | 16.0 | 03/19/2019 | ND | 432 | 108 | 400 | 0.00 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/18/2019 | ND | 207 | 103 | 200 | 4.90 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/18/2019 | ND | 204 | 102 | 200 | 7.04 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/18/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *98.8 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *100 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Analytical Results For:

TETRA TECH
CLAIR GONZALES
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

| | | | |
|---|---|---|---|
| Received: | 03/18/2019 | Sampling Date: | 03/18/2019 |
| Reported: | 03/19/2019 | Sampling Type: | Soil |
| Project Name: | HOUND CONDOR TIE IN | Sampling Condition: | Cool & Intact |
| Project Number: | 212C-MD-01643 | Sample Received By: | Tamara Oldaker |
| Project Location: | EOG-LEA CO. NM | | |

### Sample ID: WEST 3 SIDEWALL (H901028-05)

**BTEX 8021B** mg/kg Analyzed By: ms

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| Benzene* | <0.050 | 0.050 | 03/19/2019 | ND | 2.08 | 104 | 2.00 | 0.400 | |
| Toluene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.92 | 95.9 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 03/19/2019 | ND | 1.97 | 98.4 | 2.00 | 1.39 | |
| Total Xylenes* | <0.150 | 0.150 | 03/19/2019 | ND | 5.99 | 99.8 | 6.00 | 0.300 | |
| Total BTEX | <0.300 | 0.300 | 03/19/2019 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *93.9 %* *73.3-129*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **96.0** | 16.0 | 03/19/2019 | ND | 432 | 108 | 400 | 0.00 | |

**TPH 8015M** mg/kg Analyzed By: MS

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| GRO C6-C10* | <10.0 | 10.0 | 03/18/2019 | ND | 207 | 103 | 200 | 4.90 | |
| DRO >C10-C28* | <10.0 | 10.0 | 03/18/2019 | ND | 204 | 102 | 200 | 7.04 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 03/18/2019 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *100 %* *41-142*

*Surrogate: 1-Chlorooctadecane* *96.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

## Notes and Definitions

| | |
|---|---|
| ND | Analyte NOT DETECTED at or above the reporting limit |
| RPD | Relative Percent Difference |
| ** | Samples not received at proper temperature of 6°C or below. |
| *** | Insufficient time to reach temperature. |
| - | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |
| | Samples reported on an as received basis (wet) unless otherwise noted on report |

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

| | | | |
|---|---|---|---|
| Company Name: | Texas Tech | **BILL TO** | |
| Project Manager: | Clair Gonzales | P.O. #: | |
| Address: | 901 W. Wall St. | Company: | EOG |
| City: | Midland State: TX Zip: 79701 | Attn: | James Kennedy |
| Phone #: | 432-260-8634 Fax #: | Address: | 5509 Champions Dr. |
| Project #: | 212C-MD-01643 Project Owner: EOG | City: | Midland |
| Project Name: | Hound / Condor Tie-In | State: | TX Zip: 79706 |
| Project Location: | Lea Co., NM | Phone #: | 432-686-3667 |
| Sampler Name: | Stephen Reyes | Fax #: | |

| FOR LAB USE ONLY Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX: GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: | PRESERV.: ACID/BASE: | ICE / COOL | OTHER: | SAMPLING: DATE | TIME | ANALYSIS REQUEST: BTEX 8021 B | TPH 8015 M | Chloride |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H201028 | | | | | | | | | | | | | | | | | |
| 1 | Bottom Hole 13 (2' BEB) | | 1 | | | X | | | | | X | | 3-18-14 | | X | X | X |
| 2 | Bottom Hole 14 (2' BEB) | | 1 | | | X | | | | | X | | 3-18-14 | | X | X | X |
| 3 | Bottom Hole 15 (2' BEB) | | 1 | | | X | | | | | X | | 3-18-14 | | X | X | X |
| 4 | Bottom Hole 16 (2' BEB) | | 1 | | | X | | | | | X | | 3-18-14 | | X | X | X |
| 5 | West 3 Sidewall | | 1 | | | X | | | | | X | | 3-18-14 | | X | X | X |



| | | | |
|---|---|---|---|
| Relinquished By: | Date: 3-18-14 Time: 12:35 | Received By: | Phone Result: ☐ Yes ☐ No Add'l Phone #: |
| Relinquished By: | Date: Time: | Received By: | Fax Result: ☐ Yes ☐ No Add'l Fax #: |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.6° #497 | Sample Condition Cool: Yes Intact: Yes / No | CHECKED BY: (Initials) TO. | REMARKS: RUSH |

# Appendix D

# Lea County, New Mexico

## JA—Jal association

### Map Unit Setting

*National map unit symbol:* dmpt
*Elevation:* 3,000 to 4,000 feet
*Mean annual precipitation:* 10 to 16 inches
*Mean annual air temperature:* 58 to 62 degrees F
*Frost-free period:* 190 to 205 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Jal and similar soils:* 55 percent
*Drake and similar soils:* 30 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Jal

#### Setting

*Landform:* Playa rims
*Landform position (two-dimensional):* Shoulder
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Convex
*Across-slope shape:* Concave
*Parent material:* Calcareous alluvium and/or calcareous lacustrine deposits derived from sedimentary rock

#### Typical profile

*A - 0 to 12 inches:* sandy loam
*Bk - 12 to 60 inches:* loam

#### Properties and qualities

*Slope:* 0 to 3 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 50 percent
*Gypsum, maximum in profile:* 1 percent
*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 2.0
*Available water storage in profile:* Moderate (about 7.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 7c
*Hydrologic Soil Group:* B
*Ecological site:* Limy (R042XC030NM)
*Hydric soil rating:* No

**Description of Drake**

**Setting**

*Landform:* Playa dunes
*Landform position (two-dimensional):* Backslope, footslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear, concave
*Across-slope shape:* Linear
*Parent material:* Calcareous eolian deposits derived from sedimentary rock

**Typical profile**

*A - 0 to 9 inches:* loamy fine sand
*AC - 9 to 30 inches:* fine sandy loam
*C - 30 to 60 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 3 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Well drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 50 percent
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum in profile:* 2.0
*Available water storage in profile:* Moderate (about 6.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 7c
*Hydrologic Soil Group:* A
*Ecological site:* Sandy (R042XC004NM)
*Hydric soil rating:* No

**Minor Components**

**Wink**

*Percent of map unit:* 5 percent
*Ecological site:* Loamy Sand (R042XC003NM)
*Hydric soil rating:* No

**Simona**
*Percent of map unit:* 5 percent
*Ecological site:* Shallow Sandy (R042XC002NM)
*Hydric soil rating:* No

**Midessa**
*Percent of map unit:* 5 percent
*Ecological site:* Loamy (R042XC007NM)
*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 15, Sep 12, 2018

BLM SERIAL #:

COMPANY REFERENCE:

## 3.1 Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

| Species | lb/acre |
|---|---|
| Plains lovegrass (Eragrostis intermedia) | 0.5 |
| Sand dropseed (Sporobolus cryptandrus) | 1.0 |
| Sideoats grama (Bouteloua curtipendula) | 5.0 |
| Plains bristlegrass (Setaria macrostachya) | 2.0 |

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

**District I**
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
**District II**
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
**District III**
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
**District IV**
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 225393

## CONDITIONS

| | |
|---|---|
| Operator:<br>EOG RESOURCES INC<br>P.O. Box 2267<br>Midland, TX 79702 | OGRID:<br>7377 |
| | Action Number:<br>225393 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| bhall | Closure approved. Site will need to meet all the requirements of 19.15.29.13 NMAC. | 6/29/2023 |