

Incident ID	NDHR1913360865
District RP	1RP-5483
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: Todd Wells Title: Environmental Specialist  
 Signature: Todd Wells Date: 8/23/21  
 email: Todd\_Wells@eogresources.com Telephone: 432-686-3613

**OCD Only**

Received by: Chad Hensley Date: 09/23/2021

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

Signature: Chad Hensley Date: 09/23/2021

## Report Type: Work Plan 1RP-5483/NDHR1913360865

### General Site Information:

<b>Site:</b>	Diamond 31 Fed Com #2H				
<b>Company:</b>	EOG Resources				
<b>Section, Township and Range</b>	Unit D	Sec 31	T 24S	R 34E	
<b>County:</b>	Lea County				
<b>GPS:</b>	32.181103			-103.516523	
<b>Surface Owner:</b>	Federal				
<b>Directions:</b>	From the intersection of HWY 128 and Vaca Ln, travel south on Vaca Ln for approx. 2.25 miles, turn east onto lease road for 0.15 miles to location on north side of lease road.				

### Release Data:

<b>Date Released:</b>	3/12/2019
<b>Type Release:</b>	Oil & Produced Water
<b>Source of Contamination:</b>	Failed Gasket
<b>Fluid Released:</b>	37 bbl oil & 24 bbl water
<b>Fluids Recovered:</b>	36 bbl oil & 24 bbl water

### Official Communication:

<b>Name:</b>	Todd Wells		Clair Gonzales
<b>Company:</b>	EOG Resources		Tetra Tech
<b>Address:</b>	5509 Champions Dr		901 W. Wall St.
			Ste 100
<b>City:</b>	Midland Texas, 79706		Midland, Texas
<b>Phone number:</b>	(432) 258-4346		(432) 682-4559
<b>Fax:</b>			
<b>Email:</b>	<a href="mailto:Todd_Wells@eogresources.com">Todd_Wells@eogresources.com</a>		<a href="mailto:Clair.Gonzales@tetrattech.com">Clair.Gonzales@tetrattech.com</a>

### Site Characterization

<b>Depth to Groundwater:</b>	<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



August 23, 2021

Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Work Plan for the EOG Resources, Diamond 31 Fed Com #2H, Unit D,  
Section 31, Township 24 South, Range 34 East, Lea County, New Mexico.  
1RP-5483  
NDHR1913360865**

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a release that occurred at the Diamond 31 Fed Com #2H, Unit D, Section 31, Township 24 South, Range 34 East, Lea County, New Mexico (Site). The site coordinates are 32.181103°, -103.516523°. 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 March 12, 2019 and released approximately 37 barrels of oil and 24 barrels of produced water due to a failed gasket on the heater treater. A vacuum truck was dispatched to remove all freestanding fluids, recovering approximately 36 barrels of oil and 24 barrels of produced water. The release impacted an area inside the bermed facility measuring approximately 30' x 113' and migrated into the adjacent pasture impacting areas measuring approximately 50' x 64' and 46' x 156'. 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 USGS National Water Information Database website in Section 24, Township 24 South, Range 33 East, approximately 0.65 miles north of the site, and has a reported depth to groundwater of 18 feet below ground surface.

## Regulatory

Tetra Tech

4000 North Big Spring, Suite 401, Midland, TX 79705

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



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, 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.

### **Soil Assessment and Analytical Results**

On May 17, 2019, Tetra Tech personnel were onsite to evaluate and sample the release area. Five (5) auger holes (AH-1 through AH-5) were installed in the release area to total depths ranging from 0-1' to 2.0' below surface. All collected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the samples collected showed benzene concentrations above RRALs. None of the samples showed chloride concentrations above the RRALs, with the exception of AH-1, with a chloride concentration of 702 mg/kg, at a depth of 0-1.0' below surface. However, auger holes (AH-1 through AH-3), reported BTEX concentrations above RRALs, with concentrations ranging from 58.7 mg/kg to 442 mg/kg, at depths ranging from surface to 1.5' below surface. The areas of auger holes (AH-1 through AH-5), reported TPH concentrations above RRALs, with concentrations ranging from 111 mg/kg to 30,100 mg/kg, at depths ranging from surface to 2.0' below surface. However, vertical delineation was not found in any of the auger holes.

### **Remediation Activities**

Based on the results of the soil assessment, Tetra Tech personnel were onsite between June 27<sup>th</sup> and July 3<sup>rd</sup> to supervise the remediation activities. The impacted areas were excavated to total depths ranging from 6"-1.0 and 5.0' below surface. Confirmation bottom hole and sidewall samples were collected every 200 square feet. A total of fifty-three (53) bottom hole samples (Bottom Hole 1 through Bottom Hole 53) and fourteen (14) sidewall samples (NSW-1 through NSW-3, SSW-1 through SSW-3, ESW-1 through ESW-4, and WSW-1 through WSW-4) were collected 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.

The areas of Bottom Hole 50, Bottom Hole 51, Bottom Hole 52, and Bottom Hole 53, which were hand dug to remove the shallow impacted soils, showed TPH concentrations of 2,550 mg/kg, 5,200 mg/kg, 4,820 mg/kg, and 3,510 mg/kg, respectively. Due to numerous above ground and buried lines in the area, as well as the proximity to existing production equipment, further excavation of these areas could not be safely performed at the time. Deeper samples could not



be collected via hand auger due to a dense formation in the area. Additionally, a backhoe was unable to access the areas to aid in the collection of deeper samples for vertical delineation.

All of the remaining confirmation samples showed benzene and total BTEX below the laboratory reporting limit. Additionally, all confirmation samples showed chloride and TPH concentrations below the RRALs.

Approximately 1,200 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

**Work Plan**

Based on the previous laboratory results, EOG will further sample the remaining impact to attempt to find delineation and collect current data. EOG will attempt to remediate the remaining impact located in the berm and around the equipment (BH-50 through BH-53), by attempting remediation of the release to the most stringent thresholds. EOG will remediate the release to the maximum extent practical that does not cause pipeline, equipment, or safety concerns, or cause major facility deconstruction. Once remediation activities are complete, bottom hole and sidewall confirmation samples will be collected every 200 square feet to ensure concentrations are reported below the determined RRALs. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment for this site, please call at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

Handwritten signature of Brittany Long in black ink.

Brittany Long,  
Project Manager

Handwritten signature of Clair Gonzales in blue ink.

Clair Gonzales, P.G.  
Senior Project Manager

cc: James Kennedy – EOG  
Todd Wells - EOG

## Figures



Date: 7/2/2019 Document Path: C:\Users\MIS\T\MORGAN\Desktop\project folder\212C-MD-01758 DIAMOND 31 FED COM 212C-MD-01758 OVERVIEW.MXD FIG. 1.mxd

**SITE LOCATION**

0 10,416.5 20,833

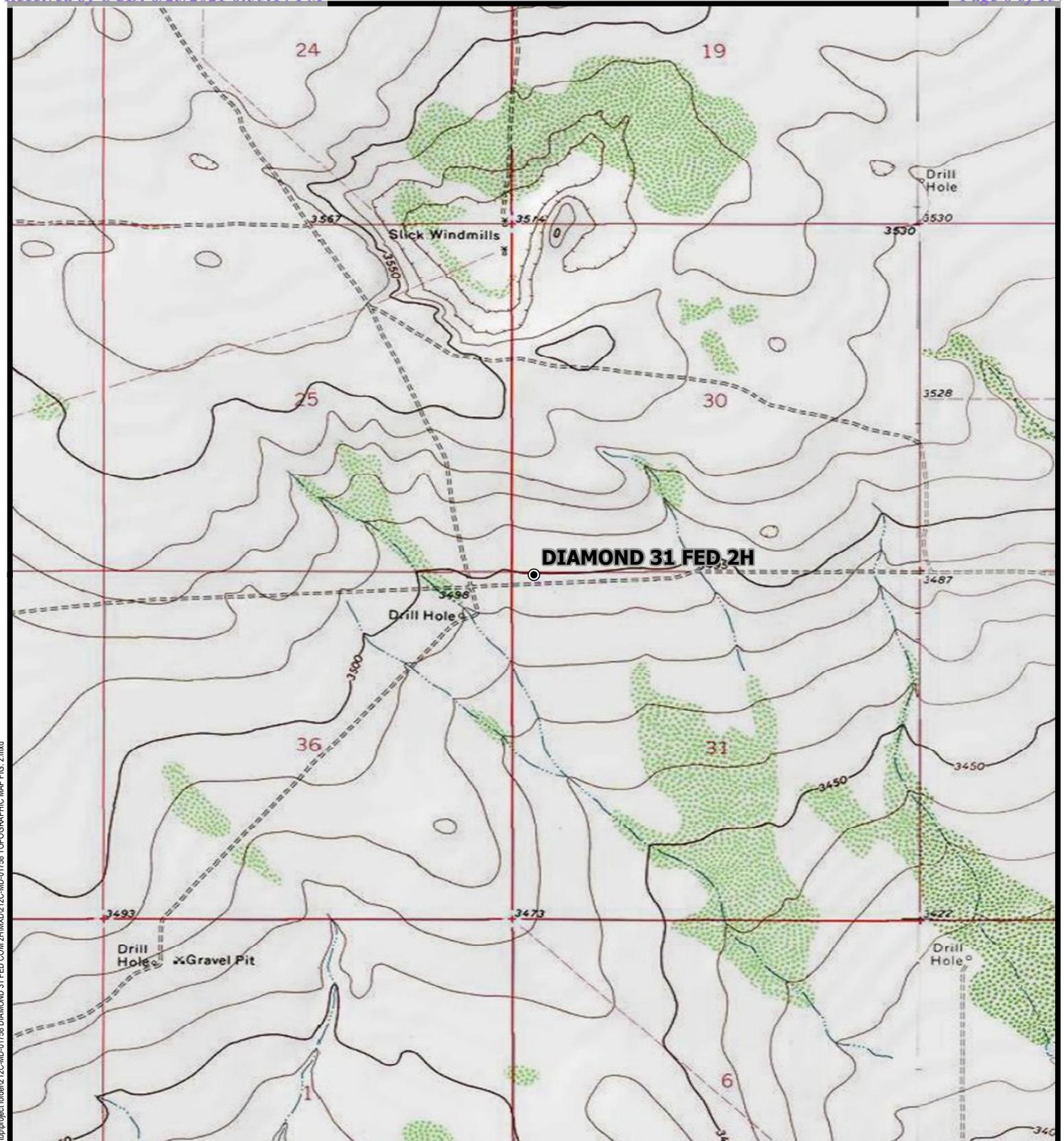
**Approximate Scale in Feet**

Sources: Esri, HERE, Garmin, USGS, Intermap,



**OVERALL SITE MAP**  
**DIAMOND 31 FEDERAL 2H**  
 PROPERTY LOCATED AT 32.181103°,-103.516523°  
 LEA COUNTY, NEW MEXICO

**FIGURE 1**



Date: 7/2/2019 Document Path: C:\Users\MIS\T\MORGAN\Desktop\project folder\212C-MD-01758 DIAMOND 31 FED COM 2\HIXD\212C-MD-01758 TOPOGRAPHIC MAP FIG. 2.mxd

● SITE LOCATION



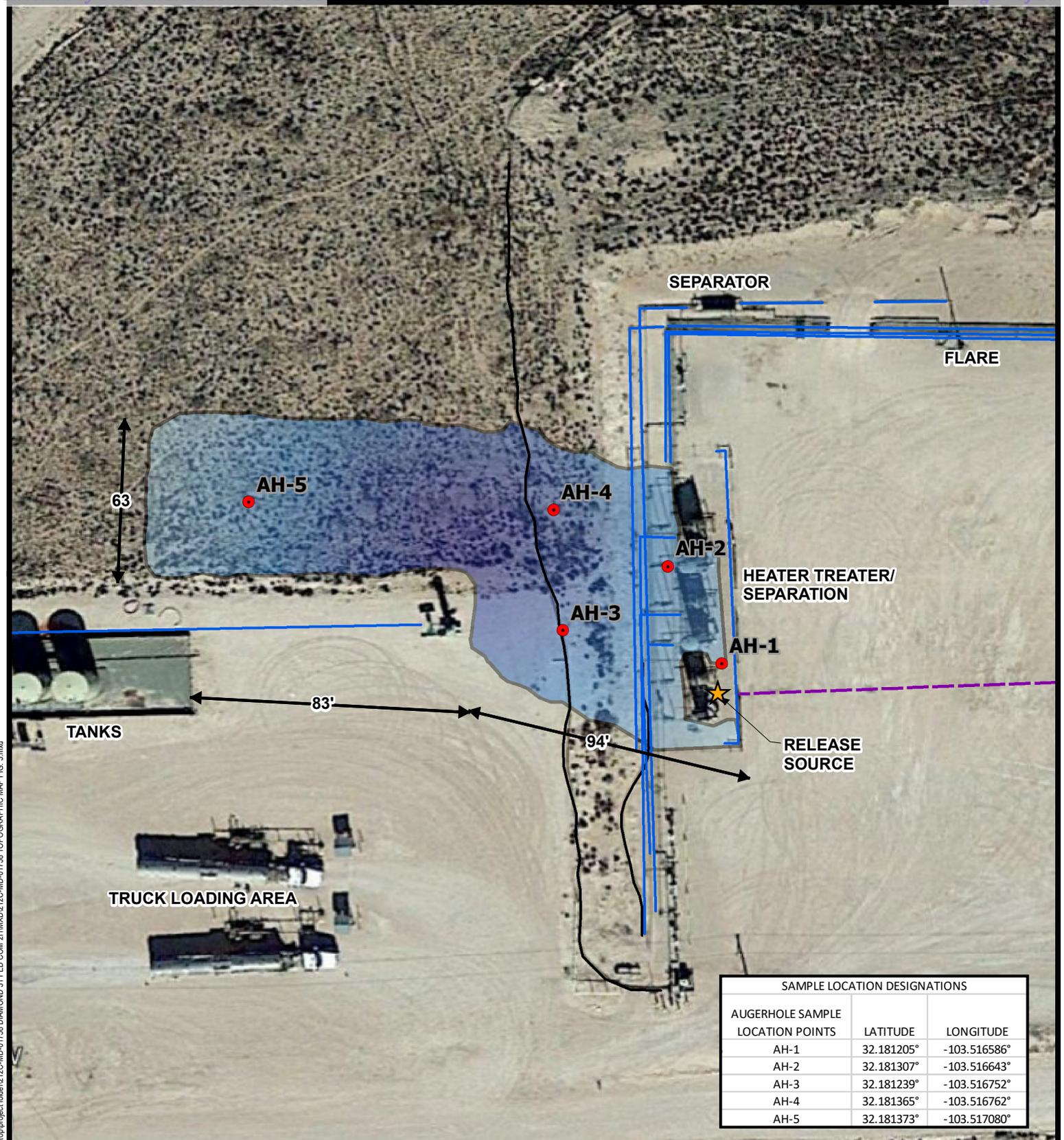
0 1,000 2,000  
Approximate Scale in Feet

TOPOGRAPHIC MAP  
DIAMOND 31 FEDERAL 2H  
PROPERTY LOCATED AT 32.181103°,-103.516523°  
LEA COUNTY, NEW MEXICO



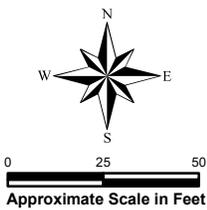
FIGURE  
2

Copyright: © 2013  
National Geographic



SAMPLE LOCATION DESIGNATIONS		
AUGERHOLE SAMPLE LOCATION POINTS	LATITUDE	LONGITUDE
AH-1	32.181205°	-103.516586°
AH-2	32.181307°	-103.516643°
AH-3	32.181239°	-103.516752°
AH-4	32.181365°	-103.516762°
AH-5	32.181373°	-103.517080°

- AUGERHOLE SAMPLE LOCATIONS
- BURIED PIPE
- ABOVEGROUND POLYPIPE/FLOWLINE
- PROCESS PIPE
- AFFECTED SPILL AREA



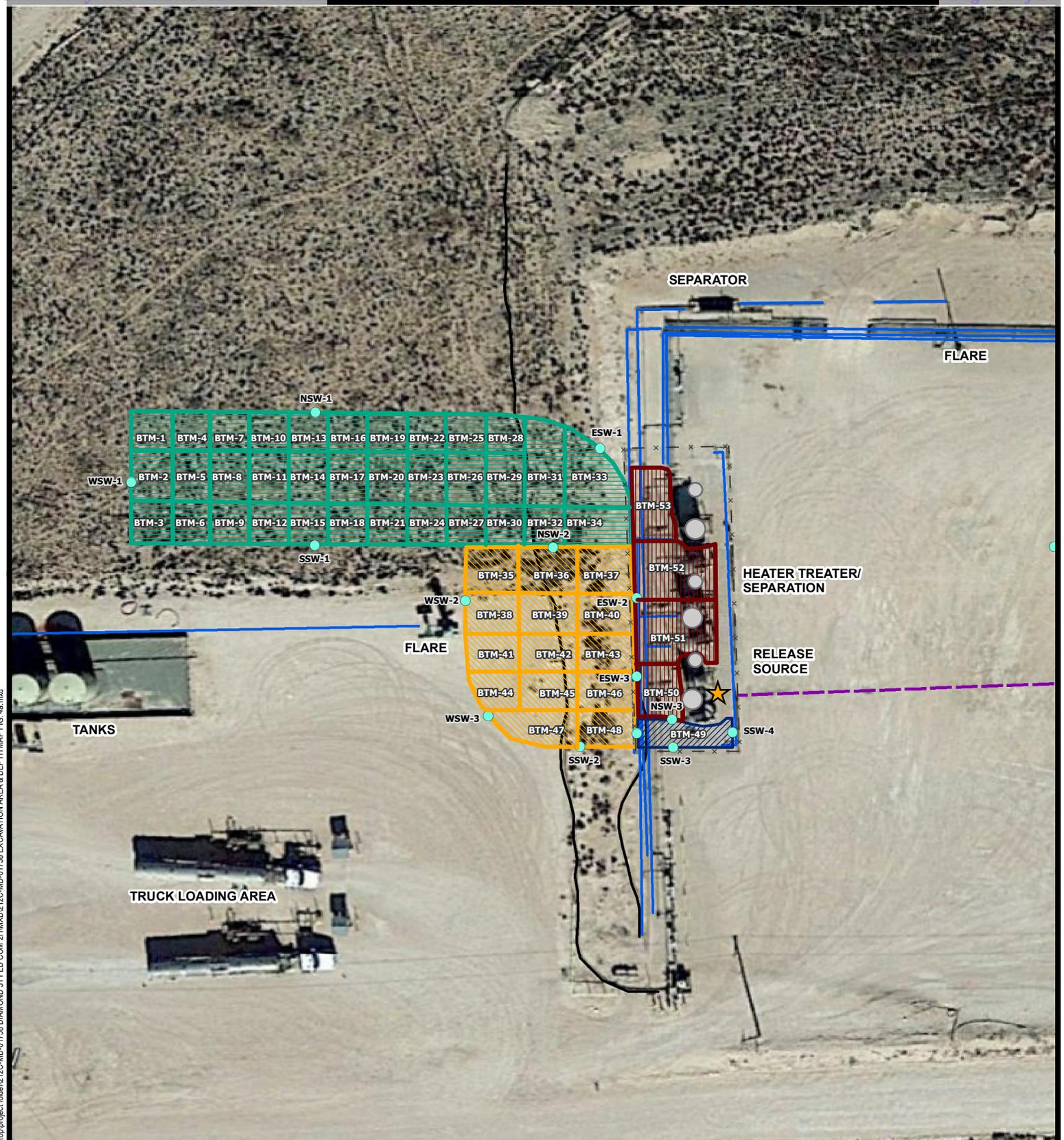
SPILL ASSESSMENT MAP  
 DIAMOND 31 FEDERAL 2H  
 PROPERTY LOCATED AT 32.181103°,-103.516523°  
 LEA COUNTY, NEW MEXICO



FIGURE  
3

Date: 7/30/2019 Document Path: C:\Users\MIS.T\MORGAN\Desktop\project folder\212C-MD-01758 DIAMOND 31 FED COM. 2H\WXD\212C-MD-01758 TOPOGRAPHIC MAP FIG. 3.mxd

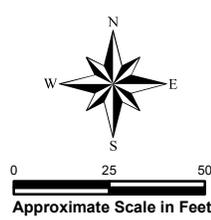
SOURCE: GOOGLE 2-2017



Date: 7/23/2019 Document Path: C:\Users\MIS1\MORGAN\Desktop\project folder\212C-MD-01758 DIAMOND 31 FED COM. 212C-MD-01758 EXCAVATION AREA & DEPTH MAP FIG. 4a.mxd

- BTM** BOTTOM HOLE SAMPLE LOCATIONS
- SIDEWALL DESIGNATIONS
- × FENCE
- BURIED PIPE
- ABOVEGROUND POLYPIPE/FLOWLINE
- PROCESS PIPE
- 0.6'-1' EXCAVATED DEPTH AREA
- 2' EXCAVATED DEPTH AREA
- 4' EXCAVATED DEPTH AREA
- 5' EXCAVATED DEPTH AREA

SOURCE: GOOGLE 2-2017



EXCAVATION AREA & DEPTH MAP  
 DIAMOND 31 FEDERAL 2H  
 PROPERTY LOCATED AT 32.181103°,-103.516523°  
 LEA COUNTY, NEW MEXICO



FIGURE 4

# Tables

**Table 1**  
**EOG**  
**Diamond 31 Fed Com 2H**  
**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	MRO	Total						
AH-1	5/17/2019	0-1	-	X		1,740	6,630	926	<b>9,300</b>	0.885	14.4	9.66	33.8	<b>58.7</b>	<b>702</b>
	"	1-1.5	-	X		295	1480	129	<b>1,900</b>	0.00353	0.122	0.144	0.629	0.899	213
	"	1.5-2	-	X		334	3,660	304	<b>4,300</b>	<0.00200	0.0214	0.0359	0.331	0.388	293
AH-2	5/17/2019	0-1	-	X		2,590	13,600	1,830	<b>18,000</b>	0.584	14.7	12.7	40.7	<b>68.7</b>	134
AH-3	5/17/2019	0-1	-	X		6,780	20,800	2,490	<b>30,100</b>	5.32	98.2	77.1	233	<b>414</b>	136
	"	1-1.5	-	X		6,520	10,300	1,130	<b>18,000</b>	7.71	134	71.9	228	<b>442</b>	7.36
AH-4	5/17/2019	0-1	-	X		<15.0	822	98.3	<b>920</b>	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	36.8
	"	1-1.5	-	X		<15.0	348	45.1	<b>393</b>	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<5.00
	"	1.5-2	-	X		<15.0	1,020	134	<b>1,150</b>	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5.18
AH-5	5/17/2019	0-1	-	X		<15.0	95.5	15.2	<b>111</b>	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<4.99
	"	1-1.5	-	X		<15.0	392	91.2	<b>483</b>	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<5.01
Bottom Hole 1	6/27/2019	-	2.0	X		<10.0	10.6	<10.0	10.6	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 2	6/27/2019	-	2.0	X		<10.0	14.2	<10.0	14.2	<0.050	0.055	<0.050	<0.150	<0.300	<16.0
Bottom Hole 3	6/27/2019	-	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 4	6/27/2019	-	2.0	X		<10.0	34.9	11.5	46.4	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 5	6/27/2019	-	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	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 7	6/27/2019	-	2.0	X		<10.0	17.6	<10.0	17.6	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 8	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	0.054	<0.050	<0.150	0.054	48.0
Bottom Hole 9	6/27/2019	-	2.0	X		<10.0	18.3	<10.0	18.3	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 10	6/27/2019	-	2.0	X		<10.0	54.1	18.7	72.8	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0

**Table 1**  
**EOG**  
**Diamond 31 Fed Com 2H**  
**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	MRO	Total						
Bottom Hole 11	6/27/2019	-	2.0	X		<10.0	12.8	<10.0	12.8	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 12	6/27/2019	-	2.0	X		<10.0	30.7	23.8	54.5	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
Bottom Hole 13	6/27/2019	-	2.0	X		<10.0	13.9	<10.0	13.9	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 14	6/27/2019	-	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 15	6/27/2019	-	2.0	X		<10.0	19.9	<10.0	19.9	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
Bottom Hole 16	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	0.059	<0.050	<0.150	0.059	32.0
Bottom Hole 17	6/27/2019	-	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 18	6/27/2019	-	2.0	X		<10.0	30.4	<10.0	30.4	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
Bottom Hole 19	6/27/2019	-	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 20	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 21	6/27/2019	-	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 22	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 23	6/27/2019	-	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 24	6/27/2019	-	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 25	6/27/2019	-	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 26	6/27/2019	-	2.0	X		<10.0	18.2	<10.0	18.2	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 27	6/27/2019	-	2.0	X		<10.0	44.7	17.2	61.9	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 28	6/27/2019	-	2.0	X		<10.0	22.0	<10.0	22.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 29	6/27/2019	-	2.0	X		<10.0	10.7	<10.0	10.7	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 30	6/27/2019	-	2.0	X		<10.0	41.4	<10.0	41.4	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
Bottom Hole 31	6/27/2019	-	2.0	X		<10.0	14.2	<10.0	14.2	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 32	6/27/2019	-	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 33	6/27/2019	-	2.0	X		<10.0	25.8	<10.0	25.8	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
Bottom Hole 34	6/27/2019	-	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 35	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
Bottom Hole 36	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	256
Bottom Hole 37	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
Bottom Hole 38	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	240
Bottom Hole 39	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160

**Table 1**  
**EOG**  
**Diamond 31 Fed Com 2H**  
**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	MRO	Total						
Bottom Hole 40	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
Bottom Hole 41	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	272
Bottom Hole 42	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
Bottom Hole 43	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
Bottom Hole 44	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	240
Bottom Hole 45	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
Bottom Hole 46	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
Bottom Hole 47	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
Bottom Hole 48	7/3/2019	-	5.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
Bottom Hole 49	7/3/2019	-	4.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole 50	7/9/2019	-	1.0	X		375	2060	116	<b>2550</b>	0.00455	0.08200	0.04670	0.301	0.434	213
Bottom Hole 51	7/9/2019	-	1.0	X		292	4620	290	<b>5200</b>	0.00282	0.00854	0.0128	0.0351	0.0593	289
Bottom Hole 52	7/9/2019	-	1.0	X		1510	3160	153	<b>4820</b>	1.10	4.21	1.99	7.93	15.2	40.9
Bottom Hole 53	7/9/2019	-	1.0	X		763	2620	125	<b>3510</b>	0.108	0.637	0.466	9.8	11.0	573
NSW-1	6/27/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
NSW-2	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
NSW-3	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
SSW-1	6/27/2019	-	-	X		<10.0	43.9	21.9	65.8	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SSW-2	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
SSW-3	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
ESW-1	6/27/2019	-	-	X		<10.0	31.0	<10.0	31.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
ESW-2	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
ESW-3	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
ESW-4	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
WSW-1	6/27/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
WSW-2	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	240
WSW-3	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	192
WSW-4	7/3/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112

# Photos

EOG Resources  
Diamond 31 Fed Com #2H  
Lea County, New Mexico



TETRA  
TECH



View Southeast – Excavation Area



View East – 2.0' Excavation Area

EOG Resources  
Diamond 31 Fed Com #2H  
Lea County, New Mexico



TETRA TECH



View South – 5.0' Excavation Area



View North – Hand Dug Excavation Area Inside Berm

EOG Resources  
Diamond 31 Fed Com #2H  
Lea County, New Mexico



TETRA TECH



View North – 4.0' Excavation Area

# 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	NDHR1913360865
District RP	IRP-5483
Facility ID	
Application ID	pDHR1913360141

## Release Notification

### Responsible Party

Responsible Party EOG Resources	OGRID 7377
Contact Name Todd Wells	Contact Telephone (432) 686-3613
Contact email Todd_Wells@eogresources.com	Incident # (assigned by OCD) NDHR1913360865
Contact mailing address 5509 Champions Drive Midland, TX 79706	

### Location of Release Source

Latitude 32.181103° Longitude -103.516523°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Diamond 31 Fed Com #2H Facility	Site Type EOG Facility
Date Release Discovered 3/12/19	API# (if applicable) 30-025-40484

Unit Letter	Section	Township	Range	County
D	31	24S	34E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: Bureau of Land Management, BLM)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 37	Volume Recovered (bbls) 36
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 24	Volume Recovered (bbls) 24
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The gasket on the heater treater failed causing a mist of oil and water to spray off location. Approximately 61 bbls of oil and water was released and 60 bbls recovered.

State of New Mexico  
Oil Conservation Division

Incident ID	NDHR1913360865
District RP	1RP-5483
Facility ID	
Application ID	pDHR1913360141

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume more than 25 bbls
---	---

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No

### Initial Response

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

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

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

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

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

Printed Name: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 5-1-19

email: Todd\_Wells@eogresources.com Telephone: (432) 686-3613

**OCD Only**

Received by: Dylan Rose-Coss Date: 05/13/2019

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: *Todd Wells* \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Todd Wells Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# Appendix B

**Water Well Data  
Average Depth to Groundwater (ft)  
West Artesia Grayburg Unit #18  
Eddy County, New Mexico**

23 South			33 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

23 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

23 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

24 South			33 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			34 East				
6	81	5	4	475	3	2	1
7	8	9	10	11	40	12	
18	17	16	15	14	13		
19	20	21	22	23	24		
30	29	28	27	26	25		
31	32	33	34	35	233	36	

24 South			35 East			
6	5	4	3	2	1	
7	8	9	10	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	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	

25 South			34 East			
6	5	4	3	2	1	260
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	300
30	29	50	28	27	26	25
31	32	33	34	35	36	

25 South			35 East			
6	5	4	3	108	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



USGS Home  
Contact USGS  
Search USGS

## National Water Information System: Web Interface

[USGS Water Resources](#)

<b>Data Category:</b> Groundwater	<b>Geographic Area:</b> United States	GO
--------------------------------------	--	----

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

### Search Results -- 1 sites found

**site\_no list =**

- 321127103310401

**Minimum number of levels = 1**

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

### USGS 321127103310401 24S.33E.24.44444

**Available data for this site**

Lea County, New Mexico

Hydrologic Unit Code 13070007

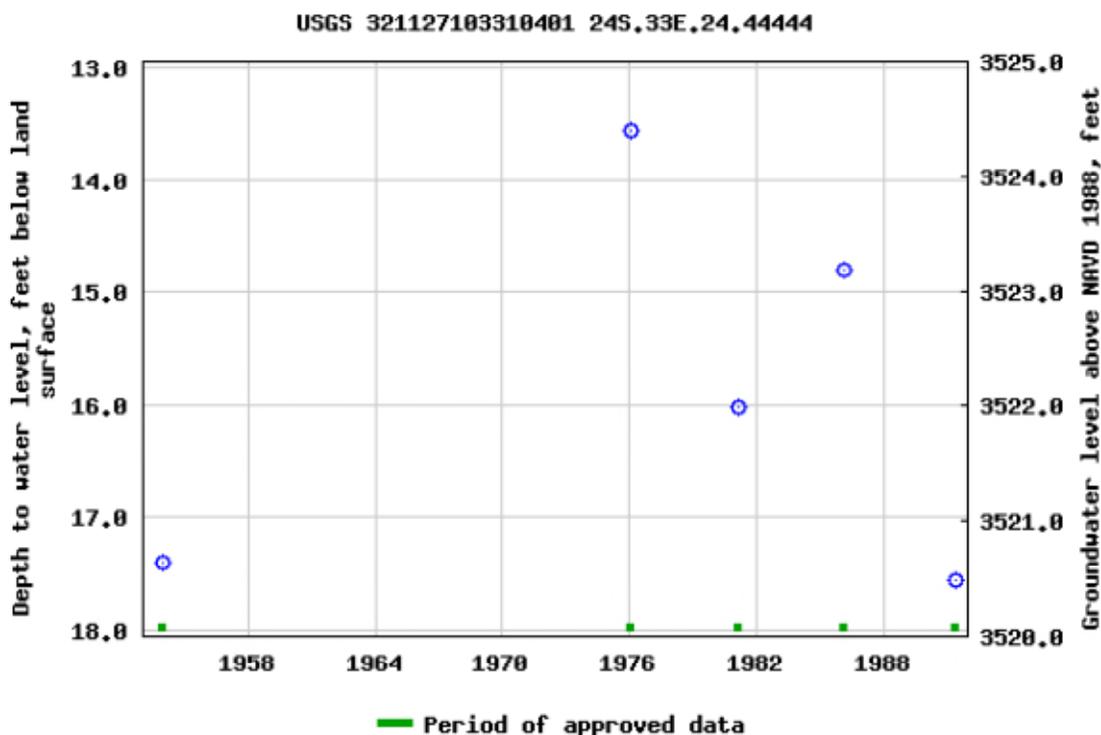
Latitude 32°11'27", Longitude 103°31'04" NAD27

Land-surface elevation 3,538 feet above NAVD88

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

[News](#)

[Accessibility](#)

[Plug-Ins](#)

[FOIA](#)

[Privacy](#)

[Policies and Notices](#)

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

**Title: Groundwater for USA: Water Levels**

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



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

Page Last Modified: 2019-07-22 11:42:54 EDT

1.09 0.9 nadww01

## 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	DepthWell	DepthWater	Water Column
<a href="#">C 02373</a>		CUB	LE	4	1	32	24S	34E		641979	3560916*	<input type="checkbox"/>	600	
<a href="#">C 02386</a>		CUB	LE	4	1	2 04	24S	34E		643962	3569290*	<input type="checkbox"/>	575	475 100
<a href="#">C 02387</a>		CUB	LE			1 11	24S	34E		646513	3567613*	<input type="checkbox"/>	62	40 22
<a href="#">C 02397</a>		CUB	LE	4	1	2 04	24S	34E		643962	3569290*	<input type="checkbox"/>	575	475 100
<a href="#">C 03932 POD13</a>		CUB	LE	4	2	3 15	24S	34E		645314	3565203	<input type="checkbox"/>	90	
<a href="#">C 03932 POD3</a>		CUB	LE	4	3	2 05	24S	34E		642442	3568787	<input type="checkbox"/>	100	
<a href="#">C 03932 POD8</a>		CUB	LE	4	2	4 07	24S	34E		641120	3566769	<input type="checkbox"/>	72	
<a href="#">C 03943 POD1</a>		CUB	LE	2	4	2 21	24S	34E		644523	3564266	<input type="checkbox"/>	610	431 179
<a href="#">C 04014 POD1</a>		CUB	LE	1	1	3 06	24S	34E		639811	3568638	<input type="checkbox"/>	91	81 10

Average Depth to Water: **300 feet**  
 Minimum Depth: **40 feet**  
 Maximum Depth: **475 feet**

**Record Count:** 9

**PLSS Search:**

**Township:** 24S **Range:** 34E

\*UTM location was derived from PLSS - see Help

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

5/17/19 1:06 PM

WATER COLUMN/ AVERAGE DEPTH  
TO WATER



### National Water Information System: Mapper

Sites | Map

Search

Search by Street Address:

Search by Place Name:

Search by Site Number(s):

Search by State/Territory:

Search by Watershed Region:

Surface-Water Sites

Groundwater Sites

Springs

Atmospheric Sites

Other Sites



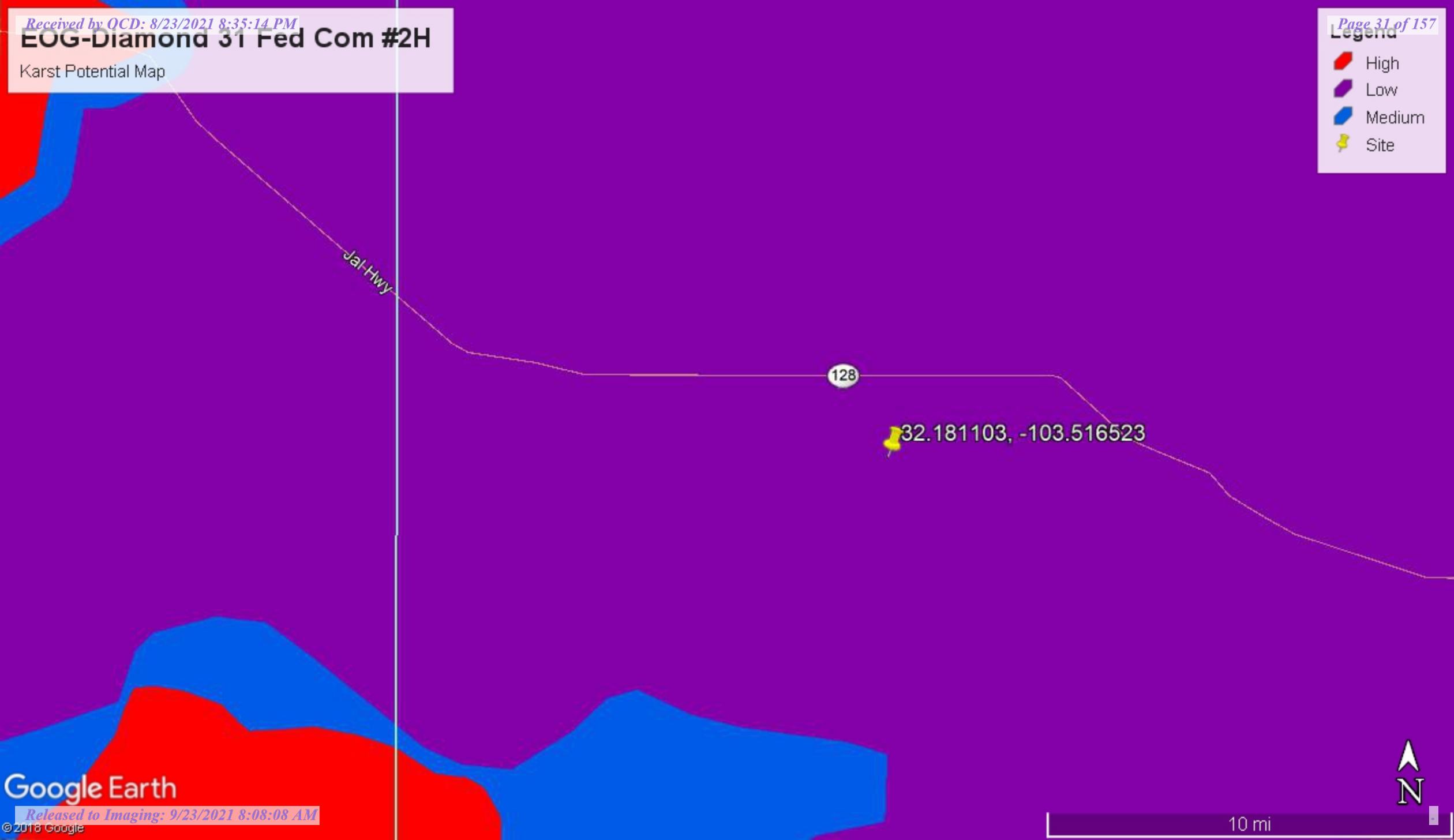
#### Site Information

# EOG-Diamond 31 Fed Com #2H

## Legend

Karst Potential Map

- High
- Low
- Medium
- Site



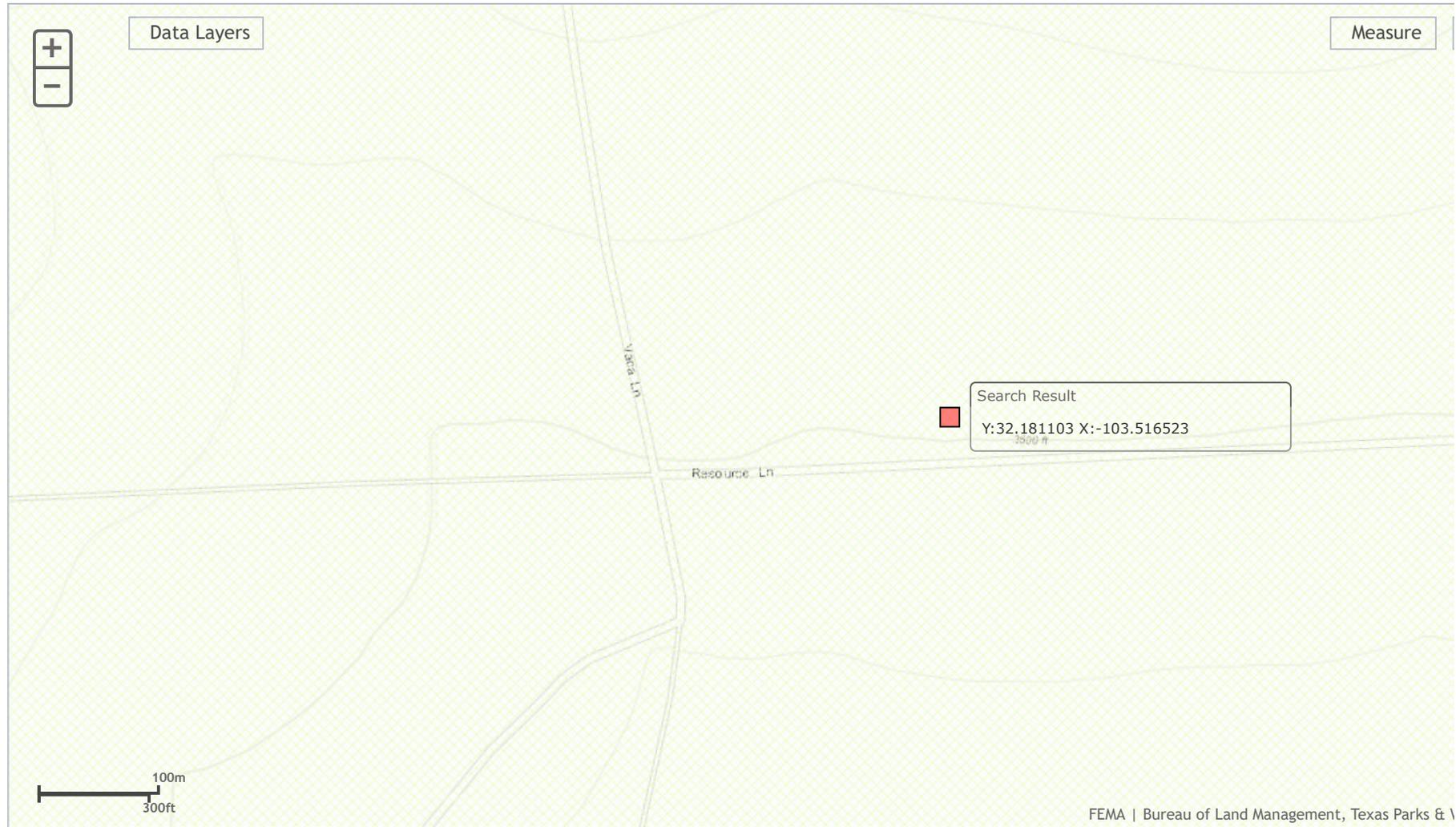


# NFHL Web Mapping Application



Data Layers

Measure



FEMA | Bureau of Land Management, Texas Parks & Wildlife

# Appendix C

# Analytical Report 624787

for  
**Tetra Tech- Midland**

**Project Manager: Mike Carmona**

**EOG Diamond 31 Fed Com 2H**

**212C-MD-01758**

**28-MAY-19**

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)  
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-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



28-MAY-19

Project Manager: **Mike Carmona**  
**Tetra Tech- Midland**  
901 West Wall ST  
Midland, TX 79701

Reference: XENCO Report No(s): **624787**  
**EOG Diamond 31 Fed Com 2H**  
Project Address: Lea Co, NM

**Mike Carmona:**

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) 624787. 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. 624787 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**  
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 624787

## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH#1 (0-1')	S	05-17-19 00:00		624787-001
AH#1 (1-1.5')	S	05-17-19 00:00		624787-002
AH#1 (1.5-2')	S	05-17-19 00:00		624787-003
AH#2 (0-1')	S	05-17-19 00:00		624787-004
AH#3 (0-1')	S	05-17-19 00:00		624787-005
AH#4 (0-1')	S	05-17-19 00:00		624787-006
AH#4 (1-1.5')	S	05-17-19 00:00		624787-007
AH#4 (1.5-2')	S	05-17-19 00:00		624787-008
AH#5 (0-1')	S	05-17-19 00:00		624787-009
AH#5 (1-1.5')	S	05-17-19 00:00		624787-010
AH#3 (1-1.5')	S	05-17-19 00:00		624787-011



# CASE NARRATIVE

**Client Name: Tetra Tech- Midland**

**Project Name: EOG Diamond 31 Fed Com 2H**

Project ID: 212C-MD-01758  
Work Order Number(s): 624787

Report Date: 28-MAY-19  
Date Received: 05/20/2019

**Sample receipt non conformances and comments:**

None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3089914 BTEX by EPA 8021B

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

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

Samples affected are: 624787-002,624787-003,624787-011,624787-004,624787-005,624787-001.

Batch: LBA-3090325 TPH by SW8015 Mod

Lab Sample ID 624787-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Diesel Range Organics (DRO) recovered below QC limits in the Matrix Spike and Matrix Spike

Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 624787-001, -002, -003, -004, -005, -006, -007, -008, -009.

The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.



# Certificate of Analysis Summary 624787

Tetra Tech- Midland, Midland, TX

Project Name: EOG Diamond 31 Fed Com 2H

**Project Id:** 212C-MD-01758  
**Contact:** Mike Carmona  
**Project Location:** Lea Co, NM

**Date Received in Lab:** Mon May-20-19 07:26 am  
**Report Date:** 28-MAY-19  
**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	624787-001	624787-002	624787-003	624787-004	624787-005	624787-006
	<i>Field Id:</i>	AH#1 (0-1')	AH#1 (1-1.5')	AH#1 (1.5-2')	AH#2 (0-1')	AH#3 (0-1')	AH#4 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30
	<i>Analyzed:</i>	May-23-19 02:46	May-22-19 23:19	May-22-19 23:38	May-23-19 03:05	May-23-19 09:42	May-23-19 00:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	0.885 0.100	0.00353 0.00199	<0.00200 0.00200	0.584 0.0996	5.32 2.01	<0.00200 0.00200
	Toluene	14.4 0.100	0.122 0.00199	0.0214 0.00200	14.7 0.0996	98.2 2.01	<0.00200 0.00200
	Ethylbenzene	9.66 0.100	0.144 0.00199	0.0359 0.00200	12.7 0.0996	77.1 2.01	<0.00200 0.00200
	m,p-Xylenes	23.6 0.201	0.372 0.00398	0.130 0.00401	29.4 0.199	168 4.02	<0.00400 0.00400
	o-Xylene	10.2 0.100	0.257 0.00199	0.201 0.00200	11.3 0.0996	65.3 2.01	<0.00200 0.00200
Total Xylenes	33.8 0.100	0.629 0.00199	0.331 0.00200	40.7 0.0996	233 2.01	<0.00200 0.00200	
Total BTEX	58.7 0.100	0.899 0.00199	0.388 0.00200	68.7 0.0996	414 2.01	<0.00200 0.00200	
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	May-20-19 12:00	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30
	<i>Analyzed:</i>	May-20-19 19:06	May-20-19 12:54	May-20-19 13:15	May-20-19 13:33	May-20-19 13:38	May-20-19 13:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	702 4.98	213 4.97	293 5.03	134 4.95	136 24.8	36.8 5.04	
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	May-24-19 17:00	May-24-19 17:00	May-24-19 17:00	May-24-19 17:00	May-24-19 17:00	May-24-19 17:00
	<i>Analyzed:</i>	May-25-19 11:53	May-25-19 04:20	May-25-19 05:19	May-25-19 12:12	May-25-19 12:32	May-25-19 06:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	1740 74.7	295 15.0	334 15.0	2590 74.9	6780 150	<15.0 15.0
	Diesel Range Organics (DRO)	6630 74.7	1480 15.0	3660 15.0	13600 74.9	20800 150	822 15.0
	Motor Oil Range Hydrocarbons (MRO)	926 74.7	129 15.0	304 15.0	1830 74.9	2490 150	98.3 15.0
Total TPH	9300 74.7	1900 15.0	4300 15.0	18000 74.9	30100 150	920 15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 624787

Tetra Tech- Midland, Midland, TX

Project Name: EOG Diamond 31 Fed Com 2H

**Project Id:** 212C-MD-01758  
**Contact:** Mike Carmona  
**Project Location:** Lea Co, NM

**Date Received in Lab:** Mon May-20-19 07:26 am  
**Report Date:** 28-MAY-19  
**Project Manager:** Jessica Kramer

Analysis Requested	Lab Id:	624787-007	624787-008	624787-009	624787-010	624787-011	
	Field Id:	AH#4 (1-1.5')	AH#4 (1.5-2')	AH#5 (0-1')	AH#5 (1-1.5')	AH#3 (1-1.5')	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	May-17-19 00:00	
<b>BTEX by EPA 8021B</b>	Extracted:	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	May-22-19 10:30	
	Analyzed:	May-23-19 01:11	May-23-19 01:30	May-23-19 01:49	May-23-19 02:08	May-23-19 22:01	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	7.71 2.01	
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	134 2.01	
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	71.9 2.01	
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00402 0.00402	<0.00398 0.00398	168 4.02	
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	60.0 2.01	
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	228 2.01	
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	442 2.01	
<b>Chloride by EPA 300</b>	Extracted:	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30	May-20-19 12:30	
	Analyzed:	May-20-19 13:59	May-20-19 14:04	May-20-19 14:09	May-20-19 14:14	May-20-19 14:19	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		<5.00 5.00	5.18 5.01	<4.99 4.99	<5.01 5.01	7.36 5.04	
<b>TPH by SW8015 Mod</b>	Extracted:	May-24-19 17:00	May-24-19 17:00	May-24-19 17:00	May-23-19 10:00	May-23-19 10:00	
	Analyzed:	May-25-19 06:37	May-25-19 06:57	May-25-19 07:16	May-23-19 22:20	May-24-19 07:02	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	6520 74.8	
Diesel Range Organics (DRO)		348 15.0	1020 15.0	95.5 15.0	392 15.0	10300 74.8	
Motor Oil Range Hydrocarbons (MRO)		45.1 15.0	134 15.0	15.2 15.0	91.2 15.0	1130 74.8	
Total TPH		393 15.0	1150 15.0	111 15.0	483 15.0	18000 74.8	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

*Jessica Kramer*

Jessica Kramer  
Project Assistant





# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3089914

Sample: 624787-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/22/19 23:19

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0479	0.0300	160	70-130	**

Lab Batch #: 3089914

Sample: 624787-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/22/19 23:38

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0455	0.0300	152	70-130	**

Lab Batch #: 3089914

Sample: 624787-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 00:52

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	70-130	
4-Bromofluorobenzene	0.0289	0.0300	96	70-130	

Lab Batch #: 3089914

Sample: 624787-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 01:11

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3089914

Sample: 624787-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 01:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0296	0.0300	99	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3089914

Sample: 624787-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 01:49

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3089914

Sample: 624787-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 02:08

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3089914

Sample: 624787-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 02:46

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0578	0.0300	193	70-130	**

Lab Batch #: 3089914

Sample: 624787-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 03:05

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	70-130	
4-Bromofluorobenzene	0.0560	0.0300	187	70-130	**

Lab Batch #: 3089914

Sample: 624787-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 09:42

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0412	0.0300	137	70-130	**

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3089914

Sample: 624787-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 22:01

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0403	0.0300	134	70-130	**

Lab Batch #: 3090162

Sample: 624787-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 22:20

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	100	99	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 3090162

Sample: 624787-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/24/19 07:02

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.7	109	70-135	
o-Terphenyl	62.7	49.9	126	70-135	

Lab Batch #: 3090325

Sample: 624787-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 04:20

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.7	106	70-135	
o-Terphenyl	50.7	49.9	102	70-135	

Lab Batch #: 3090325

Sample: 624787-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 05:19

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	192	200	96	70-135	
o-Terphenyl	110	99.9	110	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3090325

Sample: 624787-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 06:18

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.7	111	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

Lab Batch #: 3090325

Sample: 624787-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 06:37

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.0	100	97	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

Lab Batch #: 3090325

Sample: 624787-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 06:57

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	99.8	99	70-135	
o-Terphenyl	60.3	49.9	121	70-135	

Lab Batch #: 3090325

Sample: 624787-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 07:16

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.8	129	70-135	
o-Terphenyl	64.6	49.9	129	70-135	

Lab Batch #: 3090325

Sample: 624787-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 11:53

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.6	96	70-135	
o-Terphenyl	54.8	49.8	110	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3090325

Sample: 624787-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 12:12

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	99.9	90	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 3090325

Sample: 624787-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 12:32

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.9	119	70-135	
o-Terphenyl	37.7	50.0	75	70-135	

Lab Batch #: 3089914

Sample: 7678402-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/22/19 20:28

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0243	0.0300	81	70-130	

Lab Batch #: 3090162

Sample: 7678550-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/23/19 12:58

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	100	90	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 3090325

Sample: 7678655-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/19 03:02

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.4	100	95	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3089914

Sample: 7678402-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/22/19 18:54

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

Lab Batch #: 3090162

Sample: 7678550-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/23/19 13:18

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	45.1	50.0	90	70-135	

Lab Batch #: 3090325

Sample: 7678655-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/19 03:21

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	47.9	50.0	96	70-135	

Lab Batch #: 3089914

Sample: 7678402-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/22/19 19:13

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	70-130	
4-Bromofluorobenzene	0.0315	0.0300	105	70-130	

Lab Batch #: 3090162

Sample: 7678550-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/23/19 13:38

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

Work Orders : 624787,

Project ID: 212C-MD-01758

Lab Batch #: 3090325

Sample: 7678655-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/19 03:41

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3089914

Sample: 624786-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/22/19 19:32

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0308	0.0300	103	70-130	

Lab Batch #: 3090162

Sample: 624937-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/23/19 14:18

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.9	108	70-135	
o-Terphenyl	46.7	50.0	93	70-135	

Lab Batch #: 3090325

Sample: 624787-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/19 04:39

**SURROGATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	53.5	49.9	107	70-135	

Lab Batch #: 3089914

Sample: 624786-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/22/19 19:51

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: EOG Diamond 31 Fed Com 2H

**Work Orders :** 624787,

**Project ID:** 212C-MD-01758

**Lab Batch #:** 3090162

**Sample:** 624937-001 SD / MSD

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 05/23/19 14:38

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.9	107	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

**Lab Batch #:** 3090325

**Sample:** 624787-002 SD / MSD

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 05/25/19 04:59

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.8	123	70-135	
o-Terphenyl	56.6	49.9	113	70-135	

\* Surrogate outside of Laboratory QC limits  
 \*\* Surrogates outside limits; data and surrogates confirmed by reanalysis  
 \*\*\* Poor recoveries due to dilution  
 Surrogate Recovery [D] = 100 \* A / B  
 All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



**Project Name: EOG Diamond 31 Fed Com 2H**

**Work Order #:** 624787

**Project ID:** 212C-MD-01758

**Analyst:** SCM

**Date Prepared:** 05/22/2019

**Date Analyzed:** 05/22/2019

**Lab Batch ID:** 3089914

**Sample:** 7678402-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.000384	0.0998	0.0937	94	0.100	0.112	112	18	70-130	35	
Toluene	<0.000455	0.0998	0.0911	91	0.100	0.107	107	16	70-130	35	
Ethylbenzene	<0.000564	0.0998	0.0937	94	0.100	0.110	110	16	70-130	35	
m,p-Xylenes	<0.00101	0.200	0.193	97	0.200	0.226	113	16	70-130	35	
o-Xylene	<0.000344	0.0998	0.0952	95	0.100	0.114	114	18	70-130	35	

**Analyst:** SPC

**Date Prepared:** 05/20/2019

**Date Analyzed:** 05/20/2019

**Lab Batch ID:** 3089549

**Sample:** 7678188-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<5.00	250	261	104	250	263	105	1	90-110	20	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



**Project Name: EOG Diamond 31 Fed Com 2H**

**Work Order #: 624787**

**Project ID: 212C-MD-01758**

**Analyst: CHE**

**Date Prepared: 05/20/2019**

**Date Analyzed: 05/20/2019**

**Lab Batch ID: 3089621**

**Sample: 7678199-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	1.47	250	242	97	250	242	97	0	90-110	20	

**Analyst: ARM**

**Date Prepared: 05/23/2019**

**Date Analyzed: 05/23/2019**

**Lab Batch ID: 3090162**

**Sample: 7678550-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH by SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1040	104	1000	1020	102	2	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	995	100	1000	985	99	1	70-135	20	

**Analyst: ARM**

**Date Prepared: 05/24/2019**

**Date Analyzed: 05/25/2019**

**Lab Batch ID: 3090325**

**Sample: 7678655-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH by SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1080	108	1000	1060	106	2	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1000	998	100	2	70-135	20	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



**Project Name: EOG Diamond 31 Fed Com 2H**

**Work Order # :** 624787

**Project ID:** 212C-MD-01758

**Lab Batch ID:** 3089914

**QC- Sample ID:** 624786-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/22/2019

**Date Prepared:** 05/22/2019

**Analyst:** SCM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	0.000528	0.0994	0.0885	89	0.100	0.0984	98	11	70-130	35	
Toluene	0.000528	0.0994	0.0850	85	0.100	0.0942	94	10	70-130	35	
Ethylbenzene	<0.000561	0.0994	0.0851	86	0.100	0.0950	95	11	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.175	88	0.201	0.194	97	10	70-130	35	
o-Xylene	0.000528	0.0994	0.0863	86	0.100	0.0968	96	11	70-130	35	

**Lab Batch ID:** 3089549

**QC- Sample ID:** 624787-002 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/20/2019

**Date Prepared:** 05/20/2019

**Analyst:** SPC

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Chloride	213	249	464	101	249	463	100	0	90-110	20	

**Lab Batch ID:** 3089549

**QC- Sample ID:** 624787-011 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/20/2019

**Date Prepared:** 05/20/2019

**Analyst:** SPC

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Chloride	7.36	252	272	105	252	273	105	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



# Form 3 - MS / MSD Recoveries



**Project Name: EOG Diamond 31 Fed Com 2H**

**Work Order # :** 624787

**Project ID:** 212C-MD-01758

**Lab Batch ID:** 3089621

**QC- Sample ID:** 624761-004 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/20/2019

**Date Prepared:** 05/20/2019

**Analyst:** CHE

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	134	251	369	94	251	366	92	1	90-110	20	

**Lab Batch ID:** 3089621

**QC- Sample ID:** 624761-006 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/20/2019

**Date Prepared:** 05/20/2019

**Analyst:** CHE

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1180	249	1370	76	249	1380	80	1	90-110	20	X

**Lab Batch ID:** 3090162

**QC- Sample ID:** 624937-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/23/2019

**Date Prepared:** 05/23/2019

**Analyst:** ARM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	10.4	999	1080	107	999	1100	109	2	70-135	20	
Diesel Range Organics (DRO)	57.3	999	1020	96	999	1030	97	1	70-135	20	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



# Form 3 - MS / MSD Recoveries



**Project Name: EOG Diamond 31 Fed Com 2H**

**Work Order # :** 624787

**Project ID:** 212C-MD-01758

**Lab Batch ID:** 3090325

**QC- Sample ID:** 624787-002 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 05/25/2019

**Date Prepared:** 05/24/2019

**Analyst:** ARM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

TPH by SW8015 Mod  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	295	997	1330	104	998	1350	106	1	70-135	20	
Diesel Range Organics (DRO)	1480	997	1960	48	998	2000	52	2	70-135	20	X

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record



**Tetra Tech, Inc.**

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

*1024747*

Client Name: **EOG** Site Manager: **Mike Carmona**

Project Name: **Diamond 31 Fed Com 2H** Project #: **212C-MD-01758**

Project Location: **Lea Co, NM** (county, state)

Invoice to: **EOG - James Kennedy**

Receiving Laboratory: **Xenco** Sampler Signature: **Conner Moehring**

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		YEAR: 2019				WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None		
	AH #1 (0-1')			5/17/2019		X	X	X	X	X	X	1	N
	AH #1 (1-1.5')			5/17/2019		X	X	X	X	X	X	1	N
	AH #1 (1.5-2')			5/17/2019		X	X	X	X	X	X	1	N
	AH #2 (0-1')			5/17/2019		X	X	X	X	X	X	1	N
	AH #3 (0-1')			5/17/2019		X	X	X	X	X	X	1	N
	AH #4 (0-1')			5/17/2019		X	X	X	X	X	X	1	N
	AH #4 (1-1.5')			5/17/2019		X	X	X	X	X	X	1	N
	AH #4 (1.5-2')			5/17/2019		X	X	X	X	X	X	1	N
	AH #5 (0-1')			5/17/2019		X	X	X	X	X	X	1	N
	AH #5 (1-1.5')			5/17/2019		X	X	X	X	X	X	1	N

Relinquished by: *Matthew S. Fulk* Date: *5/17/19* Time: *14:40*  
 Received by: *[Signature]* Date: *5/17/19* Time: *14:40*  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

LAB USE ONLY	REMARKS:	STANDARD
<input checked="" type="checkbox"/>	BTEX 8021B BTEX 8260B	
<input checked="" type="checkbox"/>	TPH TX1005 (Ext to C35)	
<input checked="" type="checkbox"/>	TPH 8015M ( GRO - DRO - ORO - MRO)	
<input checked="" type="checkbox"/>	PAH 8270C	
<input checked="" type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg	
<input checked="" type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input checked="" type="checkbox"/>	TCLP Volatiles	
<input checked="" type="checkbox"/>	TCLP Semi Volatiles	
<input checked="" type="checkbox"/>	RCI	
<input checked="" type="checkbox"/>	GC/MS Vol. 8260B / 624	
<input checked="" type="checkbox"/>	GC/MS Semi. Vol. 8270C/625	
<input checked="" type="checkbox"/>	PCB's 8082 / 608	
<input checked="" type="checkbox"/>	NORM	
<input checked="" type="checkbox"/>	PLM (Asbestos)	
<input checked="" type="checkbox"/>	Chloride	
<input checked="" type="checkbox"/>	Chloride Sulfate TDS	
<input checked="" type="checkbox"/>	General Water Chemistry (see attached list)	
<input checked="" type="checkbox"/>	Anion/Cation Balance	
<input checked="" type="checkbox"/>	Hold	

Sample Temperature: *4.9/4.7*  
 REMARKS:  RUSH: Same Day 24 hr 48 hr **72 hr**  
 STANDARD  
 Rush Charges Authorized  
 Special Report Limits or TRRP Report

ORIGINAL COPY

5/17/2019

ORIGIN ID:CAOA (281) 240-4200  
SAMPLE CUSTODY  
SAMPLE CUSTODY  
1089 N CANAL ST  
CARLSBAD, NM 88220  
UNITED STATES US

SHIP DATE: 17MAY19  
ACTWG: 59.00 LB  
CAD: 114488676/NET4100  
DIMS: 24x13x13 IN  
BILL SENDER

TO SAMPLE RECEIVING MIDLAND

200 W INTERSTATE 20

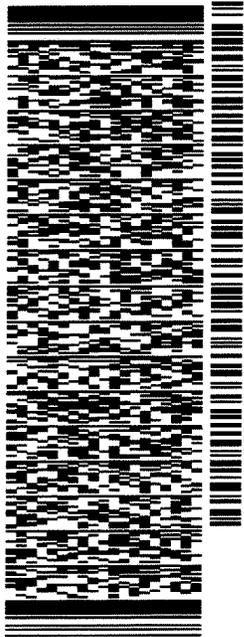
MIDLAND TX 79701

(432) 704-5440

REF:

INV:

DEPT:



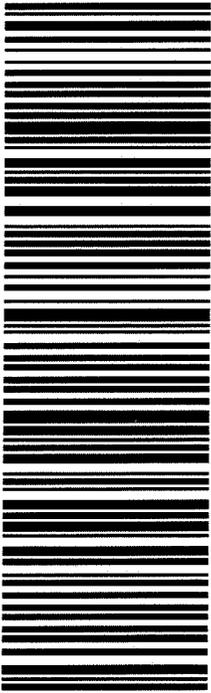
565J1/D66C/23AD

TRK# 7752 4951 5802  
0201

SATURDAY HOLD  
PRIORITY OVERNIGHT

41 MAFA

HL D 79701  
TX-US LBB



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 05/20/2019 07:26:00 AM

Work Order #: 624787

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)?	4.7
#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  
Brianna Teel

Date: 05/20/2019

Checklist reviewed by: Jessica Kramer  
Jessica Kramer

Date: 05/20/2019



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

---

June 28, 2019

MIKE CARMONA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DIAMOND 31 FED COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 06/27/19 16:30.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 1 ( 2' BEB ) (H902220-01)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/27/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/27/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/27/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	ND	400	100	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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>10.6</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 70.2 % 41-142

Surrogate: 1-Chlorooctadecane 75.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 2 ( 2' BEB ) (H902220-02)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2019	ND	1.82	90.8	2.00	4.84	
<b>Toluene*</b>	<b>0.055</b>	0.050	06/27/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/27/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/27/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	400	100	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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>14.2</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 87.2 % 41-142

Surrogate: 1-Chlorooctadecane 95.1 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 3 ( 2' BEB ) (H902220-03)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/27/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/27/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/27/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	400	100	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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 82.1 % 41-142

Surrogate: 1-Chlorooctadecane 86.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 4 ( 2' BEB ) (H902220-04)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/27/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/27/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/27/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	34.9	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	11.5	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 75.1 % 41-142

Surrogate: 1-Chlorooctadecane 82.1 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 5 ( 2' BEB ) (H902220-05)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 77.8 % 41-142

Surrogate: 1-Chlorooctadecane 86.3 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 6 ( 2' BEB ) (H902220-06)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 78.0 % 41-142

Surrogate: 1-Chlorooctadecane 85.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 7 ( 2' BEB ) (H902220-07)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>17.6</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 84.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.5 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 8 ( 2' BEB ) (H902220-08)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
<b>Toluene*</b>	<b>0.054</b>	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 9 ( 2' BEB ) (H902220-09)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>18.3</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 78.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 10 ( 2' BEB ) (H902220-10)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>54.1</b>	10.0	06/28/2019	ND	232	116	200	1.87	
<b>EXT DRO &gt;C28-C36</b>	<b>18.7</b>	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 80.5 % 41-142

Surrogate: 1-Chlorooctadecane 88.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 11 ( 2' BEB ) (H902220-11)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>12.8</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 80.7 % 41-142

Surrogate: 1-Chlorooctadecane 87.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 12 ( 2' BEB ) (H902220-12)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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
<b>Chloride</b>	<b>16.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>82.0</b>	10.0	06/28/2019	ND	232	116	200	1.87	
<b>EXT DRO &gt;C28-C36</b>	<b>24.9</b>	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 82.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.4 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 13 ( 2' BEB ) (H902220-13)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>13.9</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 61.6 % 41-142

Surrogate: 1-Chlorooctadecane 67.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 14 ( 2' BEB ) (H902220-14)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 79.5 % 41-142

Surrogate: 1-Chlorooctadecane 84.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 15 ( 2' BEB ) (H902220-15)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>19.9</b>	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 67.8 % 41-142

Surrogate: 1-Chlorooctadecane 73.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 16 ( 2' BEB ) (H902220-16)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
<b>Toluene*</b>	<b>0.059</b>	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 60.7 % 41-142

Surrogate: 1-Chlorooctadecane 65.1 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 17 ( 2' BEB ) (H902220-17)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2019	ND	1.82	90.8	2.00	4.84	
Toluene*	<0.050	0.050	06/28/2019	ND	1.77	88.4	2.00	5.74	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.78	89.1	2.00	5.72	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.13	85.5	6.00	6.04	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	218	109	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	232	116	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 71.7 % 41-142

Surrogate: 1-Chlorooctadecane 77.8 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 18 ( 2' BEB ) (H902220-18)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>30.4</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 97.4 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 19 ( 2' BEB ) (H902220-19)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 92.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 20 ( 2' BEB ) (H902220-20)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 95.0 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 21 ( 2' BEB ) (H902220-21)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416		
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236		
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957		
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803		
Total BTEX	<0.300	0.300	06/28/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77		

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	06/28/2019	ND	199	99.3	200	0.276		
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671		
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND						

Surrogate: 1-Chlorooctane 73.2 % 41-142

Surrogate: 1-Chlorooctadecane 76.3 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 22 ( 2' BEB ) (H902220-22)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 99.3 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 23 ( 2' BEB ) (H902220-23)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	416	104	400	3.77	

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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 94.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 24 ( 2' BEB ) (H902220-24)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	ND	432	108	400	0.00	QR-03

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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 95.4 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 25 ( 2' BEB ) (H902220-25)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 98.6 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 26 ( 2' BEB ) (H902220-26)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>18.2</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 97.8 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 27 ( 2' BEB ) (H902220-27)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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
<b>Chloride</b>	<b>16.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>44.7</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
<b>EXT DRO &gt;C28-C36</b>	<b>17.2</b>	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 115 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 28 ( 2' BEB ) (H902220-28)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>22.0</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 93.5 % 41-142

Surrogate: 1-Chlorooctadecane 98.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 29 ( 2' BEB ) (H902220-29)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>10.7</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 112 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 30 ( 2' BEB ) (H902220-30)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>41.4</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 84.4 % 41-142

Surrogate: 1-Chlorooctadecane 88.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 31 ( 2' BEB ) (H902220-31)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>14.2</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 93.5 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 32 ( 2' BEB ) (H902220-32)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 94.9 % 41-142

Surrogate: 1-Chlorooctadecane 98.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 33 ( 2' BEB ) (H902220-33)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
<b>DRO &gt;C10-C28*</b>	<b>25.8</b>	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 93.5 % 41-142

Surrogate: 1-Chlorooctadecane 98.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: BOTTOM HOLE 34 ( 2' BEB ) (H902220-34)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 98.3 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: NSW - 1 (H902220-35)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 90.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: ESW - 1 (H902220-36)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	31.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 91.1 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: WSW - 1 (H902220-37)**

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	06/28/2019	ND	1.99	99.5	2.00	0.416	
Toluene*	<0.050	0.050	06/28/2019	ND	2.00	99.8	2.00	0.236	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.89	94.3	2.00	0.957	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.66	94.4	6.00	0.803	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	06/28/2019	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	06/28/2019	ND	199	99.3	200	0.276	
DRO >C10-C28*	<10.0	10.0	06/28/2019	ND	188	94.2	200	0.671	
EXT DRO >C28-C36	<10.0	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 82.1 % 41-142

Surrogate: 1-Chlorooctadecane 87.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/27/2019	Sampling Date:	06/27/2019
Reported:	06/28/2019	Sampling Type:	Soil
Project Name:	DIAMOND 31 FED COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-01758	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

**Sample ID: SSW - 1 (H902220-38)**

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	06/28/2019	ND	2.04	102	2.00	0.644	
Toluene*	<0.050	0.050	06/28/2019	ND	2.08	104	2.00	0.380	
Ethylbenzene*	<0.050	0.050	06/28/2019	ND	1.94	96.9	2.00	1.34	
Total Xylenes*	<0.150	0.150	06/28/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	06/28/2019	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	06/28/2019	ND	188	93.8	200	3.60	
DRO >C10-C28*	43.9	10.0	06/28/2019	ND	193	96.4	200	2.70	
EXT DRO >C28-C36	21.9	10.0	06/28/2019	ND					

Surrogate: 1-Chlorooctane 68.0 % 41-142

Surrogate: 1-Chlorooctadecane 79.1 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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

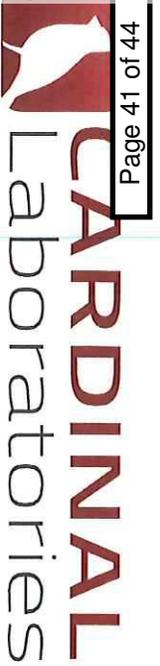
Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**BILL TO**

**ANALYSIS REQUEST**

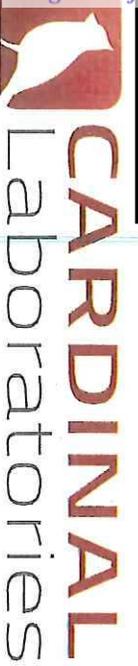
Company Name: Texas Tech P.O. #: \_\_\_\_\_  
 Project Manager: Mike Curran Company: ETU  
 Address: 901 W. Wall St. Attn: James Kennedy  
 City: Midland State: TX zip: 79701 Address: 5504 Champions Dr.  
 Phone #: 432-279-0127 Fax #: \_\_\_\_\_ City: Midland  
 Project #: 212C-MD-01NS8 Project Owner: ETU State: TX zip: 79706  
 Project Name: Diamond 31 Fee Can 24 Phone #: 432-258-4546  
 Project Location: Lea Co. NM Fax #: \_\_\_\_\_  
 Sampler Name: Shaun Reas

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:			
<u>H002200</u>	<u>Bottom Hole 1 (2'BE0)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		<u>BTEX 8021 B</u>
	<u>Bottom Hole 2 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		<u>TPH 8015 M</u>
	<u>Bottom Hole 3 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		<u>Chloride</u>
	<u>Bottom Hole 4 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 5 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 6 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 7 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 8 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 9 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		
	<u>Bottom Hole 10 (2'BE8)</u>		<u>1</u>			<u>X</u>				<u>6/29/14</u>		

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated causes or otherwise.

Relinquished By: \_\_\_\_\_ Date: 6-27-19 Received By: Jessica Elbert Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: 6:30 Received By: \_\_\_\_\_ Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_  
 Delivered By: (Circle One) \_\_\_\_\_ Sample Condition:  Intact  Cool  Yes  No  No  No CHECKED BY: \_\_\_\_\_ (Initials)  
 Sampler - UPS - Bus - Other: O.6c #09  Yes  No  No  No  No  No REMARKS: ROSH





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

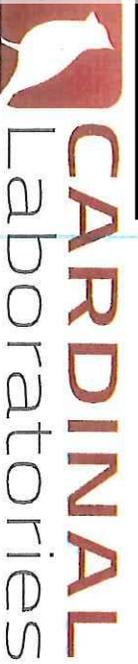
Company Name: Texra Tech  
 Project Manager: Mike Carranza  
 Address: 901 W. Wall St.  
 City: Midland State: TX Zip: 79201  
 Phone #: 432-229-6197 Fax #: \_\_\_\_\_  
 Project #: 212C-MD-01958 Project Owner: ESG  
 Project Name: Diamond 31 Fea Can 24  
 Project Location: Lea Co, NM  
 Sampler Name: Stephen Reiter  
 P.O. #: \_\_\_\_\_  
 Company: ESG  
 Attn: James Kennedy  
 Address: 5504 Champaign Dr.  
 City: Midland State: TX Zip: 79206  
 Phone #: 432-258-4546 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HD00320			1											
-21	BATTOM Hole 21 (2'BE)		1	X					6/21/14		X	X	X	
-22	BATTOM Hole 22 (2'BE)		1	X					6/21/14		X	X	X	
-23	BATTOM Hole 23 (2'BE)		1	X					6/21/14		X	X	X	
-24	BATTOM Hole 24 (2'BE)		1	X					6/21/14		X	X	X	
-25	BATTOM Hole 25 (2'BE)		1	X					6/21/14		X	X	X	
-26	BATTOM Hole 26 (2'BE)		1	X					6/21/14		X	X	X	
-27	BATTOM Hole 27 (2'BE)		1	X					6/21/14		X	X	X	
-28	BATTOM Hole 28 (2'BE)		1	X					6/21/14		X	X	X	
-29	BATTOM Hole 29 (2'BE)		1	X					6/21/14		X	X	X	
-30	BATTOM Hole 30 (2'BE)		1	X					6/21/14		X	X	X	

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: \_\_\_\_\_ Date: 6-27-19  
 Relinquished By: \_\_\_\_\_ Date: 7-11-30  
 Received By: James Kennedy  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Delivered By: (Circle One) \_\_\_\_\_  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 Sample Condition:  Intact  Cool  Yes  No  
 CHECKED BY: \_\_\_\_\_ (Initials)  
 REMARKS: RUSH



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: **Texra Tech**  
 Project Manager: **Nike Curran**  
 Address: **901 W. Hall St.**  
 City: **Midland** State: **TX** Zip: **79201**  
 Phone #: **432-229-6197** Fax #:  
 Project #: **212C-MD-01958** Project Owner: **EGG**  
 Project Name: **Diamond 31 Fea Can 24**  
 Project Location: **Lea Co, NM**  
 Sampler Name: **Steehn Rees**

P.O. #:  
 Company: **EGG**  
 Attn: **James Kennedy**  
 Address: **5504 Cleveland Dr.**  
 City: **Midland**  
 State: **TX** Zip: **79206**  
 Phone #: **432-258-4546**  
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :								
HO0000	Burton Hole 31 (2'BE)		1	X							6/21/14		X	X	X		
	Burton Hole 32 (2'BE)		1	X							6/21/14		X	X	X		
	Burton Hole 33 (2'BE)		1	X							6/21/14		X	X	X		
	Burton Hole 34 (2'BE)		1	X							6/21/14		X	X	X		
	NSW-1		1								6/21/14		X	X	X		
	ESW-1		1								6/21/14		X	X	X		
	WSW-1		1								6/21/14		X	X	X		
	SSW-1		1								6/21/14		X	X	X		

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *[Signature]*  
 Date: **6-27-19**  
 Time: **14:30**  
 Received By: *[Signature]*  
 Date: **6-27-19**  
 Time: **14:30**

Phone Result:  Yes  No  
 Fax Result:  Yes  No  
 Add'l Phone #:   
 Add'l Fax #:   
 REMARKS: **RUSH**

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other: **UPS**  
 Sample Condition  
 Cool  Intact   
 Yes  No   
 Checked By: *[Signature]*



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

July 09, 2019

MIKE CARMONA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: DIAMOND 31 FED COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 07/03/19 12:45.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DIAMOND 31 FED COM 2H  
Project Number: 212C-MD-01758  
Project Manager: MIKE CARMONA  
Fax To: (432) 682-3946

Reported:  
09-Jul-19 16:25

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BOTTOM HOLE 12 ( 2' BEB )	H902290-01	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 35 ( 5' BEB )	H902290-02	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 36 ( 5' BEB )	H902290-03	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 37 ( 5' BEB )	H902290-04	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 38 ( 5' BEB )	H902290-05	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 39 ( 5' BEB )	H902290-06	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 40 ( 5' BEB )	H902290-07	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 41 ( 5' BEB )	H902290-08	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 42 ( 5' BEB )	H902290-09	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 43 ( 5' BEB )	H902290-10	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 44 ( 5' BEB )	H902290-11	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 45 ( 5' BEB )	H902290-12	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 46 ( 5' BEB )	H902290-13	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 47 ( 5' BEB )	H902290-14	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 48 ( 5' BEB )	H902290-15	Soil	03-Jul-19 00:00	03-Jul-19 12:45
BOTTOM HOLE 49 ( 4' BEB )	H902290-16	Soil	03-Jul-19 00:00	03-Jul-19 12:45
NSW - 2	H902290-17	Soil	03-Jul-19 00:00	03-Jul-19 12:45
SSW - 2	H902290-18	Soil	03-Jul-19 00:00	03-Jul-19 12:45
ESW - 2	H902290-19	Soil	03-Jul-19 00:00	03-Jul-19 12:45
WSW - 2	H902290-20	Soil	03-Jul-19 00:00	03-Jul-19 12:45
ESW - 3	H902290-21	Soil	03-Jul-19 00:00	03-Jul-19 12:45
WSW - 3	H902290-22	Soil	03-Jul-19 00:00	03-Jul-19 12:45
NSW - 3	H902290-23	Soil	03-Jul-19 00:00	03-Jul-19 12:45
SSW - 3	H902290-24	Soil	03-Jul-19 00:00	03-Jul-19 12:45
ESW - 4	H902290-25	Soil	03-Jul-19 00:00	03-Jul-19 12:45
WSW - 4	H902290-26	Soil	03-Jul-19 00:00	03-Jul-19 12:45

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

<p>TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701</p>	<p>Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946</p>	<p>Reported: 09-Jul-19 16:25</p>
--	--	--------------------------------------

07/09/19 - Client called and brought to our attention that we put the wrong sample ID for -20. This is the revised report with the corrected sample ID for -20. This report will replace the one sent on 07/05/19.

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 12 ( 2' BEB )  
H902290-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	9070401	AC	04-Jul-19	4500-Cl-B	
----------	-------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			123 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	
DRO >C10-C28*	<b>30.7</b>		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	
EXT DRO >C28-C36	<b>23.8</b>		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	

Surrogate: 1-Chlorooctane			97.9 %		41-142	9070313	MS	03-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			104 %		37.6-147	9070313	MS	03-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DIAMOND 31 FED COM 2H  
Project Number: 212C-MD-01758  
Project Manager: MIKE CARMONA  
Fax To: (432) 682-3946

Reported:  
09-Jul-19 16:25

**BOTTOM HOLE 35 ( 5' BEB )****H902290-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>176</b>		16.0	mg/kg	4	9070401	AC	04-Jul-19	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %		73.3-129	9070315	BF	03-Jul-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	03-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.6 %		41-142	9070313	MS	03-Jul-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			103 %		37.6-147	9070313	MS	03-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 36 ( 5' BEB )**

**H902290-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	256		16.0	mg/kg	4	9070401	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			101 %		41-142	9070313	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			107 %		37.6-147	9070313	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DIAMOND 31 FED COM 2H  
Project Number: 212C-MD-01758  
Project Manager: MIKE CARMONA  
Fax To: (432) 682-3946

Reported:  
09-Jul-19 16:25

**BOTTOM HOLE 37 ( 5' BEB )****H902290-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>176</b>		16.0	mg/kg	4	9070401	AC	04-Jul-19	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %		73.3-129	9070315	BF	03-Jul-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.5 %		41-142	9070313	MS	04-Jul-19	8015B	
----------------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			102 %		37.6-147	9070313	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 38 ( 5' BEB )**

**H902290-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	9070401	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			94.2 %		41-142	9070313	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			101 %		37.6-147	9070313	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 39 ( 5' BEB )**

**H902290-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			89.2 %		41-142	9070313	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			96.7 %		37.6-147	9070313	MS	04-Jul-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701

Project: DIAMOND 31 FED COM 2H  
Project Number: 212C-MD-01758  
Project Manager: MIKE CARMONA  
Fax To: (432) 682-3946

Reported:  
09-Jul-19 16:25

**BOTTOM HOLE 40 ( 5' BEB )****H902290-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %		73.3-129	9070315	BF	03-Jul-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			103 %		41-142	9070313	MS	04-Jul-19	8015B	
----------------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			110 %		37.6-147	9070313	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 41 ( 5' BEB )**

**H902290-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	272		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	73.3-129		9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			95.6 %	41-142		9070313	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			101 %	37.6-147		9070313	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 42 ( 5' BEB )**

**H902290-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	176		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			108 %	73.3-129		9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070313	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			104 %	41-142		9070313	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			111 %	37.6-147		9070313	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 43 ( 5' BEB )**

**H902290-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			104 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			111 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 44 ( 5' BEB )**

**H902290-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			126 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			101 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			108 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 45 ( 5' BEB )  
H902290-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	176		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	73.3-129		9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			103 %	41-142		9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			106 %	37.6-147		9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 46 ( 5' BEB )  
H902290-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	73.3-129		9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			93.0 %	41-142		9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			98.0 %	37.6-147		9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 47 ( 5' BEB )**

**H902290-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			98.3 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			103 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 48 ( 5' BEB )**

**H902290-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070315	BF	03-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070315	BF	03-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			108 %		73.3-129	9070315	BF	03-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			88.7 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			92.3 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**BOTTOM HOLE 49 ( 4' BEB )  
H902290-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	32.0		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			97.5 %	41-142		9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			105 %	37.6-147		9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**NSW - 2  
H902290-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	112		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.1 %		73.3-129	9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			109 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			114 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**SSW - 2**

**H902290-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.2 %		73.3-129	9070310	ms	04-Jul-19	8021B	
--	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			104 %		41-142	9070316	MS	04-Jul-19	8015B	
----------------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			111 %		37.6-147	9070316	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**ESW - 2  
H902290-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>112</b>		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %		73.3-129	9070310	ms	04-Jul-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %		41-142	9070316	MS	04-Jul-19	8015B	
----------------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			109 %		37.6-147	9070316	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**WSW - 2  
H902290-20 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %		73.3-129	9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			105 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			112 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**ESW - 3  
H902290-21 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>160</b>		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		73.3-129	9070310	ms	04-Jul-19	8021B	
--	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			104 %		41-142	9070316	MS	04-Jul-19	8015B	
----------------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			109 %		37.6-147	9070316	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**WSW - 3  
H902290-22 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	192		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.7 %		73.3-129	9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			97.6 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			104 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**NSW - 3  
H902290-23 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %		73.3-129	9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			101 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			107 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**SSW - 3**

**H902290-24 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	144		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.2 %		73.3-129	9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			99.3 %		41-142	9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	--------	--	--------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			105 %		37.6-147	9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**ESW - 4  
H902290-25 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	128		16.0	mg/kg	4	9070402	AC	04-Jul-19	4500-CI-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		9070310	ms	04-Jul-19	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

Surrogate: 1-Chlorooctane			104 %	41-142		9070316	MS	04-Jul-19	8015B	
---------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			108 %	37.6-147		9070316	MS	04-Jul-19	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**WSW - 4  
H902290-26 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>112</b>		16.0	mg/kg	4	9070403	AC	04-Jul-19	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Toluene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	9070310	ms	04-Jul-19	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	9070310	ms	04-Jul-19	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	73.3-129		9070310	ms	04-Jul-19	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9070316	MS	04-Jul-19	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %	41-142		9070316	MS	04-Jul-19	8015B	
----------------------------------	--	--	-------	--------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			106 %	37.6-147		9070316	MS	04-Jul-19	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070401 - 1:4 DI Water**

<b>Blank (9070401-BLK1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	ND	16.0	mg/kg							
<b>LCS (9070401-BS1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (9070401-BSD1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	400	16.0	mg/kg	400		100	80-120	7.69	20	

**Batch 9070402 - 1:4 DI Water**

<b>Blank (9070402-BLK1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	ND	16.0	mg/kg							
<b>LCS (9070402-BS1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (9070402-BSD1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

**Batch 9070403 - 1:4 DI Water**

<b>Blank (9070403-BLK1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	ND	16.0	mg/kg							
<b>LCS (9070403-BS1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
Chloride	400	16.0	mg/kg	400		100	80-120			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070403 - 1:4 DI Water**

**LCS Dup (9070403-BSD1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	
----------	-----	------	-------	-----	--	-----	--------	------	----	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070310 - Volatiles**

**Blank (9070310-BLK1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0971		mg/kg	0.100		97.1	73.3-129			

**LCS (9070310-BS1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

Benzene	1.66	0.050	mg/kg	2.00		82.9	72.2-131			
Toluene	1.76	0.050	mg/kg	2.00		88.1	71.7-126			
Ethylbenzene	1.72	0.050	mg/kg	2.00		85.8	68.9-126			
Total Xylenes	5.23	0.150	mg/kg	6.00		87.1	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0986		mg/kg	0.100		98.6	73.3-129			

**LCS Dup (9070310-BSD1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

Benzene	1.62	0.050	mg/kg	2.00		80.8	72.2-131	2.61	6.91	
Toluene	1.71	0.050	mg/kg	2.00		85.6	71.7-126	2.88	7.12	
Ethylbenzene	1.67	0.050	mg/kg	2.00		83.6	68.9-126	2.61	7.88	
Total Xylenes	5.05	0.150	mg/kg	6.00		84.1	71.4-125	3.57	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0973		mg/kg	0.100		97.3	73.3-129			

**Batch 9070315 - Volatiles**

**Blank (9070315-BLK1)**

Prepared & Analyzed: 03-Jul-19

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.107		mg/kg	0.100		107	73.3-129			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070315 - Volatiles**

**LCS (9070315-BS1)**

Prepared & Analyzed: 03-Jul-19

Benzene	1.61	0.050	mg/kg	2.00		80.5	72.2-131			
Toluene	1.75	0.050	mg/kg	2.00		87.4	71.7-126			
Ethylbenzene	1.74	0.050	mg/kg	2.00		86.8	68.9-126			
Total Xylenes	5.28	0.150	mg/kg	6.00		88.0	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.101		mg/kg	0.100		101	73.3-129			

**LCS Dup (9070315-BSD1)**

Prepared & Analyzed: 03-Jul-19

Benzene	1.43	0.050	mg/kg	2.00		71.5	72.2-131	11.8	6.91	QR-04, BS2
Toluene	1.59	0.050	mg/kg	2.00		79.3	71.7-126	9.68	7.12	QR-04
Ethylbenzene	1.57	0.050	mg/kg	2.00		78.3	68.9-126	10.4	7.88	QR-04
Total Xylenes	4.76	0.150	mg/kg	6.00		79.4	71.4-125	10.3	7.46	QR-04
Surrogate: 4-Bromofluorobenzene (PID)	0.104		mg/kg	0.100		104	73.3-129			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070313 - General Prep - Organics**

<b>Blank (9070313-BLK1)</b>		Prepared & Analyzed: 03-Jul-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	47.3		mg/kg	50.0		94.7	41-142			
Surrogate: 1-Chlorooctadecane	48.9		mg/kg	50.0		97.8	37.6-147			

<b>LCS (9070313-BS1)</b>		Prepared & Analyzed: 03-Jul-19								
GRO C6-C10	203	10.0	mg/kg	200		102	76.5-133			
DRO >C10-C28	197	10.0	mg/kg	200		98.7	72.9-138			
Total TPH C6-C28	400	10.0	mg/kg	400		100	78-132			
Surrogate: 1-Chlorooctane	51.0		mg/kg	50.0		102	41-142			
Surrogate: 1-Chlorooctadecane	51.6		mg/kg	50.0		103	37.6-147			

<b>LCS Dup (9070313-BSD1)</b>		Prepared & Analyzed: 03-Jul-19								
GRO C6-C10	208	10.0	mg/kg	200		104	76.5-133	2.47	20.6	
DRO >C10-C28	199	10.0	mg/kg	200		99.3	72.9-138	0.675	20.6	
Total TPH C6-C28	407	10.0	mg/kg	400		102	78-132	1.59	18	
Surrogate: 1-Chlorooctane	51.8		mg/kg	50.0		104	41-142			
Surrogate: 1-Chlorooctadecane	52.3		mg/kg	50.0		105	37.6-147			

**Batch 9070316 - General Prep - Organics**

<b>Blank (9070316-BLK1)</b>		Prepared: 03-Jul-19 Analyzed: 04-Jul-19								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.0		mg/kg	50.0		96.0	41-142			
Surrogate: 1-Chlorooctadecane	48.8		mg/kg	50.0		97.5	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701	Project: DIAMOND 31 FED COM 2H Project Number: 212C-MD-01758 Project Manager: MIKE CARMONA Fax To: (432) 682-3946	Reported: 09-Jul-19 16:25
---	--	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 9070316 - General Prep - Organics**

**LCS (9070316-BS1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

GRO C6-C10	197	10.0	mg/kg	200		98.7	76.5-133			
DRO >C10-C28	199	10.0	mg/kg	200		99.3	72.9-138			
Total TPH C6-C28	396	10.0	mg/kg	400		99.0	78-132			
Surrogate: 1-Chlorooctane	51.2		mg/kg	50.0		102	41-142			
Surrogate: 1-Chlorooctadecane	50.1		mg/kg	50.0		100	37.6-147			

**LCS Dup (9070316-BSD1)**

Prepared: 03-Jul-19 Analyzed: 04-Jul-19

GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	2.49	20.6	
DRO >C10-C28	198	10.0	mg/kg	200		98.9	72.9-138	0.396	20.6	
Total TPH C6-C28	400	10.0	mg/kg	400		100	78-132	1.05	18	
Surrogate: 1-Chlorooctane	51.9		mg/kg	50.0		104	41-142			
Surrogate: 1-Chlorooctadecane	51.5		mg/kg	50.0		103	37.6-147			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-04            The RPD for the BS/BSD was outside of historical limits.
- BS2             Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
- 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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

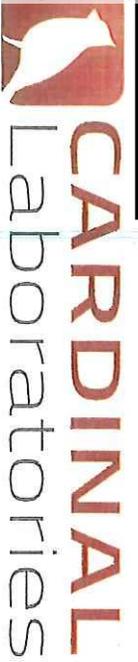
101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

Company Name: <b>Tetra Tech</b> Project Manager: <b>Mike Carmona</b>		<b>BILL TO</b> P.O. #: _____ Company: <b>EDC</b>		<b>ANALYSIS REQUEST</b>	
Address: <b>901 W. Wall St.</b> City: <b>Midland</b> State: <b>TX</b> zip: <b>79701</b>		Attn: <b>Tamara Kennedy</b> Address: <b>5504 Champion Dr.</b> City: <b>Midland</b>			
Phone #: <b>432-220-0149</b> Fax #: _____		Address: <b>5504 Champion Dr.</b> City: <b>Midland</b>			
Project #: <b>212C-MD-01758</b> Project Owner: <b>EDC</b>		State: <b>TX</b> zip: <b>79706</b>			
Project Name: <b>Diamond 31 Fed Com 24</b>		Phone #: <b>432-258-4546</b> Fax #: _____			
Project Location: <b>Len Co. NM</b>		Sampler Name: <b>Stephen Reyes</b>			
FOR LAB USE ONLY		MATRIX		PRESERV.	
Lab I.D.		Sample I.D.		DATE TIME	
H902290		(G)RAB OR (C)OMP.		DATE TIME	
1 Bottom Hole 12 (2' BEG)		# CONTAINERS		DATE TIME	
2 Bottom Hole 35 (5' BEG)		GROUNDWATER		DATE TIME	
3 Bottom Hole 36 (5' BEG)		WASTEWATER		DATE TIME	
4 Bottom Hole 37 (5' BEG)		SOIL		DATE TIME	
5 Bottom Hole 38 (5' BEG)		OIL		DATE TIME	
6 Bottom Hole 39 (5' BEG)		SLUDGE		DATE TIME	
7 Bottom Hole 40 (5' BEG)		OTHER:		DATE TIME	
8 Bottom Hole 41 (5' BEG)		ACID/BASE:		DATE TIME	
9 Bottom Hole 42 (5' BEG)		ICE / COOL		DATE TIME	
10 Bottom Hole 43 (5' BEG)		OTHER:		DATE TIME	
11 Bottom Hole 43 (5' BEG)		DATE		TIME	
12 Bottom Hole 43 (5' BEG)		DATE		TIME	
13 Bottom Hole 43 (5' BEG)		DATE		TIME	
14 Bottom Hole 43 (5' BEG)		DATE		TIME	
15 Bottom Hole 43 (5' BEG)		DATE		TIME	
16 Bottom Hole 43 (5' BEG)		DATE		TIME	
17 Bottom Hole 43 (5' BEG)		DATE		TIME	
18 Bottom Hole 43 (5' BEG)		DATE		TIME	
19 Bottom Hole 43 (5' BEG)		DATE		TIME	
20 Bottom Hole 43 (5' BEG)		DATE		TIME	
21 Bottom Hole 43 (5' BEG)		DATE		TIME	
22 Bottom Hole 43 (5' BEG)		DATE		TIME	
23 Bottom Hole 43 (5' BEG)		DATE		TIME	
24 Bottom Hole 43 (5' BEG)		DATE		TIME	
25 Bottom Hole 43 (5' BEG)		DATE		TIME	
26 Bottom Hole 43 (5' BEG)		DATE		TIME	
27 Bottom Hole 43 (5' BEG)		DATE		TIME	
28 Bottom Hole 43 (5' BEG)		DATE		TIME	
29 Bottom Hole 43 (5' BEG)		DATE		TIME	
30 Bottom Hole 43 (5' BEG)		DATE		TIME	
31 Bottom Hole 43 (5' BEG)		DATE		TIME	
32 Bottom Hole 43 (5' BEG)		DATE		TIME	
33 Bottom Hole 43 (5' BEG)		DATE		TIME	
34 Bottom Hole 43 (5' BEG)		DATE		TIME	
35 Bottom Hole 43 (5' BEG)		DATE		TIME	
36 Bottom Hole 43 (5' BEG)		DATE		TIME	
37 Bottom Hole 43 (5' BEG)		DATE		TIME	
38 Bottom Hole 43 (5' BEG)		DATE		TIME	
39 Bottom Hole 43 (5' BEG)		DATE		TIME	
40 Bottom Hole 43 (5' BEG)		DATE		TIME	
41 Bottom Hole 43 (5' BEG)		DATE		TIME	
42 Bottom Hole 43 (5' BEG)		DATE		TIME	
43 Bottom Hole 43 (5' BEG)		DATE		TIME	
44 Bottom Hole 43 (5' BEG)		DATE		TIME	
45 Bottom Hole 43 (5' BEG)		DATE		TIME	
46 Bottom Hole 43 (5' BEG)		DATE		TIME	
47 Bottom Hole 43 (5' BEG)		DATE		TIME	
48 Bottom Hole 43 (5' BEG)		DATE		TIME	
49 Bottom Hole 43 (5' BEG)		DATE		TIME	
50 Bottom Hole 43 (5' BEG)		DATE		TIME	
51 Bottom Hole 43 (5' BEG)		DATE		TIME	
52 Bottom Hole 43 (5' BEG)		DATE		TIME	
53 Bottom Hole 43 (5' BEG)		DATE		TIME	
54 Bottom Hole 43 (5' BEG)		DATE		TIME	
55 Bottom Hole 43 (5' BEG)		DATE		TIME	
56 Bottom Hole 43 (5' BEG)		DATE		TIME	
57 Bottom Hole 43 (5' BEG)		DATE		TIME	
58 Bottom Hole 43 (5' BEG)		DATE		TIME	
59 Bottom Hole 43 (5' BEG)		DATE		TIME	
60 Bottom Hole 43 (5' BEG)		DATE		TIME	
61 Bottom Hole 43 (5' BEG)		DATE		TIME	
62 Bottom Hole 43 (5' BEG)		DATE		TIME	
63 Bottom Hole 43 (5' BEG)		DATE		TIME	
64 Bottom Hole 43 (5' BEG)		DATE		TIME	
65 Bottom Hole 43 (5' BEG)		DATE		TIME	
66 Bottom Hole 43 (5' BEG)		DATE		TIME	
67 Bottom Hole 43 (5' BEG)		DATE		TIME	
68 Bottom Hole 43 (5' BEG)		DATE		TIME	
69 Bottom Hole 43 (5' BEG)		DATE		TIME	
70 Bottom Hole 43 (5' BEG)		DATE		TIME	
71 Bottom Hole 43 (5' BEG)		DATE		TIME	
72 Bottom Hole 43 (5' BEG)		DATE		TIME	
73 Bottom Hole 43 (5' BEG)		DATE		TIME	
74 Bottom Hole 43 (5' BEG)		DATE		TIME	
75 Bottom Hole 43 (5' BEG)		DATE		TIME	
76 Bottom Hole 43 (5' BEG)		DATE		TIME	
77 Bottom Hole 43 (5' BEG)		DATE		TIME	
78 Bottom Hole 43 (5' BEG)		DATE		TIME	
79 Bottom Hole 43 (5' BEG)		DATE		TIME	
80 Bottom Hole 43 (5' BEG)		DATE		TIME	
81 Bottom Hole 43 (5' BEG)		DATE		TIME	
82 Bottom Hole 43 (5' BEG)		DATE		TIME	
83 Bottom Hole 43 (5' BEG)		DATE		TIME	
84 Bottom Hole 43 (5' BEG)		DATE		TIME	
85 Bottom Hole 43 (5' BEG)		DATE		TIME	
86 Bottom Hole 43 (5' BEG)		DATE		TIME	
87 Bottom Hole 43 (5' BEG)		DATE		TIME	
88 Bottom Hole 43 (5' BEG)		DATE		TIME	
89 Bottom Hole 43 (5' BEG)		DATE		TIME	
90 Bottom Hole 43 (5' BEG)		DATE		TIME	
91 Bottom Hole 43 (5' BEG)		DATE		TIME	
92 Bottom Hole 43 (5' BEG)		DATE		TIME	
93 Bottom Hole 43 (5' BEG)		DATE		TIME	
94 Bottom Hole 43 (5' BEG)		DATE		TIME	
95 Bottom Hole 43 (5' BEG)		DATE		TIME	
96 Bottom Hole 43 (5' BEG)		DATE		TIME	
97 Bottom Hole 43 (5' BEG)		DATE		TIME	
98 Bottom Hole 43 (5' BEG)		DATE		TIME	
99 Bottom Hole 43 (5' BEG)		DATE		TIME	
100 Bottom Hole 43 (5' BEG)		DATE		TIME	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: \_\_\_\_\_ Date: **7-3-19**  
 Relinquished By: \_\_\_\_\_ Date: **12:45**  
 Received By: **Jamara Altabe**  
 Received By: \_\_\_\_\_  
 Time: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Delivered By: (Circle One) **3.8c #97**  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 Sample Condition: Cool  Intact   
 Checked By: **TS**  
 Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_  
 REMARKS: **RUSIF**



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Tetra Tech  
 Project Manager: Mike Carmana  
 Address: 901 W. Wall St.  
 City: Middland State: TX zip: 79701  
 Phone #: 432-220-0199 Fax #: \_\_\_\_\_  
 Project #: 212C-MO-01758 Project Owner: EDG  
 Project Name: Diamond 31 Fed Com 24  
 Project Location: Lea Co, NM  
 Sampler Name: Stephen Reyes  
 P.O. #: \_\_\_\_\_  
 Company: EDG  
 Attn: Tamara Kennedy  
 Address: 5504 Channing Dr.  
 City: Middland  
 State: TX zip: 79706  
 Phone #: 432-258-4546  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPT	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
#902296	Borum Hole 44 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 45 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 46 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 49 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 48 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 49 (S'VEG)		1			X				9/3/19		X	X	X
	Borum Hole 49 (S'VEG)		1			X				9/3/19		X	X	X
	NSW-2		1			X				9/3/19		X	X	X
	SSW-2		1			X				9/3/19		X	X	X
	ESW-2		1			X				9/3/19		X	X	X
	WSW-2		1			X				9/3/19		X	X	X

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: \_\_\_\_\_ Date: 9-3-19 Received By: Jessica Decker  
 Relinquished By: \_\_\_\_\_ Date: 12:45 Received By: \_\_\_\_\_

Phone Result:  Yes  No  Add'l Phone #:  
 Fax Result:  Yes  No  Add'l Fax #:  
 REMARKS: RUSIF

Delivered By: (Circle One) \_\_\_\_\_  
 Sampler - UPS - Bus - Other: 3.8c #97  
 Sample Condition: Cool  Intact   
 Yes  No   
 CHECKED BY: TS



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Tetra Tech  
 Project Manager: Mike Garmona  
 Address: 901 W. Hall St. State: TX zip: 79101  
 City: Midland  
 Phone #: 432-220-0199 Fax #: \_\_\_\_\_  
 Project #: 212C-MD-01958 Project Owner: EDG  
 Project Name: Diamond 31 Fed Com 24  
 Project Location: Leon Co. NM  
 Sampler Name: Stephen Reyes  
 P.O. #: \_\_\_\_\_  
 Company: EDG  
 Attn: Samer Kenedy  
 Address: 5504 Champion Dr.  
 City: Midland  
 State: TX zip: 79106  
 Phone #: 432-258-4546  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME						
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :								
<u>H902290</u>																				
<u>21</u>	<u>ESW-3</u>		<u>1</u>			<u>X</u>														
<u>22</u>	<u>WSW-3</u>		<u>1</u>			<u>X</u>														
<u>23</u>	<u>NSW-3</u>		<u>1</u>			<u>X</u>														
<u>24</u>	<u>SSW-3</u>		<u>1</u>			<u>X</u>														
<u>25</u>	<u>ESW-4</u>		<u>1</u>			<u>X</u>														
<u>26</u>	<u>WSW-4</u>		<u>1</u>			<u>X</u>														

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: \_\_\_\_\_  
 Date: 8-3-19  
 Time: 12:45  
 Received By: Jawana Chelate  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other: 3.8c #97  
 Sample Condition  
 Cool  Yes  No  
 Intact  Yes  No  
 CHECKED BY: TD.

Phone Result:  Yes  No  
 Fax Result:  Yes  No  
 Add'l Phone #: \_\_\_\_\_  
 Add'l Fax #: \_\_\_\_\_

REMARKS:  
RUSIF



# Certificate of Analysis Summary 630254

Tetra Tech- Midland, Midland, TX

Project Name: EOG Diamond 31 Fed Com 2H

**Project Id:** 212C-MD-01758  
**Contact:** Mike Carmona  
**Project Location:** Lea County, New Mexico

**Date Received in Lab:** Tue Jul-09-19 03:02 pm  
**Report Date:** 11-JUL-19  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	630254-001	630254-002	630254-003	630254-004		
	<b>Field Id:</b>	Bottom Hole 50 (0-1' BEB)	Bottom Hole 51 (0-1' BEB)	Bottom Hole 52 (0-1' BEB)	Bottom Hole 53 (0-1' BEB)		
	<b>Depth:</b>						
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL		
	<b>Sampled:</b>	Jul-09-19 00:00	Jul-09-19 00:00	Jul-09-19 00:00	Jul-09-19 00:00		
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Jul-09-19 17:00	Jul-09-19 17:00	Jul-09-19 17:00	Jul-09-19 17:00		
	<b>Analyzed:</b>	Jul-10-19 01:10	Jul-10-19 12:26	Jul-10-19 06:42	Jul-10-19 02:41		
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		0.00455 0.000384	0.00282 0.000386	1.10 0.00771	0.108 0.00385		
Toluene		0.0820 0.000455	0.00854 0.000457	4.21 D 0.0457	0.637 0.00456		
Ethylbenzene		0.0467 0.000564	0.0128 0.000567	1.99 D 0.0566	0.466 0.00565		
m,p-Xylenes		0.0851 0.00101	0.0241 0.00102	5.05 D 0.102	5.84 0.0101		
o-Xylene		0.216 0.000344	0.0110 0.000346	2.88 D 0.0345	3.97 0.00344		
Total Xylenes		0.301 0.000344	0.0351 0.000346	7.93 0.0345	9.81 0.00344		
Total BTEX		0.434 0.000344	0.0593 0.000346	15.2 0.00771	11.0 0.00344		
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Jul-09-19 16:40	Jul-09-19 16:40	Jul-09-19 16:40	Jul-09-19 16:40		
	<b>Analyzed:</b>	Jul-09-19 19:13	Jul-09-19 19:33	Jul-09-19 19:38	Jul-09-19 19:42		
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		213 0.858	289 0.862	40.9 0.860	573 0.852		
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	*** ** *	*** ** *	*** ** *	*** ** *		
	<b>Analyzed:</b>	Jul-10-19 01:25	Jul-10-19 01:49	Jul-10-19 02:13	Jul-10-19 02:37		
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		375 7.97	292 7.99	1510 8.00	763 7.99		
Diesel Range Organics (DRO)		2060 8.10	4620 8.11	3160 8.13	2620 8.12		
Motor Oil Range Hydrocarbons (MRO)		116 8.10	290 8.11	153 8.13	125 8.12		
Total TPH		2550 7.97	5200 7.99	4820 8.00	3510 7.99		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.9%

Jessica Kramer  
Project Assistant

# Analytical Report 630254

for  
**Tetra Tech- Midland**

**Project Manager: Mike Carmona**

**EOG Diamond 31 Fed Com 2H**

**212C-MD-01758**

**11-JUL-19**

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)  
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-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



11-JUL-19

Project Manager: **Mike Carmona**

**Tetra Tech- Midland**

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **630254**

**EOG Diamond 31 Fed Com 2H**

Project Address: Lea County, New Mexico

**Mike Carmona:**

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) 630254. 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. 630254 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**

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 630254

## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole 50 (0-1' BEB)	S	07-09-19 00:00		630254-001
Bottom Hole 51 (0-1' BEB)	S	07-09-19 00:00		630254-002
Bottom Hole 52 (0-1' BEB)	S	07-09-19 00:00		630254-003
Bottom Hole 53 (0-1' BEB)	S	07-09-19 00:00		630254-004



## CASE NARRATIVE

*Client Name: Tetra Tech- Midland*

*Project Name: EOG Diamond 31 Fed Com 2H*

Project ID: 212C-MD-01758  
Work Order Number(s): 630254

Report Date: 11-JUL-19  
Date Received: 07/09/2019

---

**Sample receipt non conformances and comments:**

None

---

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

None

**Analytical non conformances and comments:**

Batch: LBA-3094959 BTEX by EPA 8021B

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

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

Samples affected are: 630254-003,630254-001,630254-002,630254-004.



# Certificate of Analytical Results 630254

## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 50 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-001

Date Collected: 07.09.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.09.19 16.40

Basis: Wet Weight

Seq Number: 3094879

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	213	5.00	0.858	mg/kg	07.09.19 19.13		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.09.19 14.00

Basis: Wet Weight

Seq Number: 3094854

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	375	14.9	7.97	mg/kg	07.10.19 01.25		1
Diesel Range Organics (DRO)	C10C28DRO	2060	14.9	8.10	mg/kg	07.10.19 01.25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	116	14.9	8.10	mg/kg	07.10.19 01.25		1
Total TPH	PHC635	2550	14.9	7.97	mg/kg	07.10.19 01.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.10.19 01.25	
o-Terphenyl	84-15-1	93	%	70-135	07.10.19 01.25	



# Certificate of Analytical Results 630254



## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 50 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-001

Date Collected: 07.09.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DVM

% Moisture:

Analyst: FOV

Date Prep: 07.09.19 17.00

Basis: Wet Weight

Seq Number: 3094959

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.00455</b>	0.00200	0.000384	mg/kg	07.10.19 01.10		1
<b>Toluene</b>	108-88-3	<b>0.0820</b>	0.00200	0.000455	mg/kg	07.10.19 01.10		1
<b>Ethylbenzene</b>	100-41-4	<b>0.0467</b>	0.00200	0.000564	mg/kg	07.10.19 01.10		1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.0851</b>	0.00399	0.00101	mg/kg	07.10.19 01.10		1
<b>o-Xylene</b>	95-47-6	<b>0.216</b>	0.00200	0.000344	mg/kg	07.10.19 01.10		1
<b>Total Xylenes</b>	1330-20-7	<b>0.301</b>	0.00200	0.000344	mg/kg	07.10.19 01.10		1
<b>Total BTEX</b>		<b>0.434</b>	0.00200	0.000344	mg/kg	07.10.19 01.10		1
<b>Surrogate</b>	<b>Cas Number</b>		<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4		183	%	70-130	07.10.19 01.10	**	
1,4-Difluorobenzene	540-36-3		94	%	70-130	07.10.19 01.10		



# Certificate of Analytical Results 630254

## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 51 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-002

Date Collected: 07.09.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.09.19 16.40

Basis: Wet Weight

Seq Number: 3094879

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	289	5.02	0.862	mg/kg	07.09.19 19.33		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.09.19 14.00

Basis: Wet Weight

Seq Number: 3094854

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	292	15.0	7.99	mg/kg	07.10.19 01.49		1
Diesel Range Organics (DRO)	C10C28DRO	4620	15.0	8.11	mg/kg	07.10.19 01.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	290	15.0	8.11	mg/kg	07.10.19 01.49		1
Total TPH	PHC635	5200	15.0	7.99	mg/kg	07.10.19 01.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	07.10.19 01.49	
o-Terphenyl	84-15-1	118	%	70-135	07.10.19 01.49	



# Certificate of Analytical Results 630254



## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 51 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-002

Date Collected: 07.09.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DVM

% Moisture:

Analyst: FOV

Date Prep: 07.09.19 17.00

Basis: Wet Weight

Seq Number: 3094959

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.00282</b>	0.00201	0.000386	mg/kg	07.10.19 12.26		1
<b>Toluene</b>	108-88-3	<b>0.00854</b>	0.00201	0.000457	mg/kg	07.10.19 12.26		1
<b>Ethylbenzene</b>	100-41-4	<b>0.0128</b>	0.00201	0.000567	mg/kg	07.10.19 12.26		1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.0241</b>	0.00402	0.00102	mg/kg	07.10.19 12.26		1
<b>o-Xylene</b>	95-47-6	<b>0.0110</b>	0.00201	0.000346	mg/kg	07.10.19 12.26		1
<b>Total Xylenes</b>	1330-20-7	<b>0.0351</b>	0.00201	0.000346	mg/kg	07.10.19 12.26		1
<b>Total BTEX</b>		<b>0.0593</b>	0.00201	0.000346	mg/kg	07.10.19 12.26		1
<b>Surrogate</b>	<b>Cas Number</b>		<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4		161	%	70-130	07.10.19 12.26	**	
1,4-Difluorobenzene	540-36-3		90	%	70-130	07.10.19 12.26		



# Certificate of Analytical Results 630254



## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 52 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-003

Date Collected: 07.09.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.09.19 16.40

Basis: Wet Weight

Seq Number: 3094879

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.9	5.01	0.860	mg/kg	07.09.19 19.38		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.09.19 14.00

Basis: Wet Weight

Seq Number: 3094854

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1510	15.0	8.00	mg/kg	07.10.19 02.13		1
Diesel Range Organics (DRO)	C10C28DRO	3160	15.0	8.13	mg/kg	07.10.19 02.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	153	15.0	8.13	mg/kg	07.10.19 02.13		1
Total TPH	PHC635	4820	15.0	8.00	mg/kg	07.10.19 02.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.10.19 02.13	
o-Terphenyl	84-15-1	112	%	70-135	07.10.19 02.13	



# Certificate of Analytical Results 630254



## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 52 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-003

Date Collected: 07.09.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DVM

% Moisture:

Analyst: FOV

Date Prep: 07.09.19 17.00

Basis: Wet Weight

Seq Number: 3094959

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>1.10</b>	0.0401	0.00771	mg/kg	07.10.19 06.42		20
<b>Toluene</b>	108-88-3	<b>4.21</b>	0.200	0.0457	mg/kg	07.10.19 03.27	D	100
<b>Ethylbenzene</b>	100-41-4	<b>1.99</b>	0.200	0.0566	mg/kg	07.10.19 03.27	D	100
<b>m,p-Xylenes</b>	179601-23-1	<b>5.05</b>	0.401	0.102	mg/kg	07.10.19 03.27	D	100
<b>o-Xylene</b>	95-47-6	<b>2.88</b>	0.200	0.0345	mg/kg	07.10.19 03.27	D	100
<b>Total Xylenes</b>	1330-20-7	<b>7.93</b>	0.200	0.0345	mg/kg	07.10.19 03.27		100
<b>Total BTEX</b>		<b>15.2</b>	0.0401	0.00771	mg/kg	07.10.19 03.27		100
<b>Surrogate</b>	<b>Cas Number</b>		<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4		463	%	70-130	07.10.19 06.42	**	
1,4-Difluorobenzene	540-36-3		98	%	70-130	07.10.19 06.42		



# Certificate of Analytical Results 630254

## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 53 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-004

Date Collected: 07.09.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.09.19 16.40

Basis: Wet Weight

Seq Number: 3094879

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	573	4.96	0.852	mg/kg	07.09.19 19.42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.09.19 14.00

Basis: Wet Weight

Seq Number: 3094854

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	763	15.0	7.99	mg/kg	07.10.19 02.37		1
Diesel Range Organics (DRO)	C10C28DRO	2620	15.0	8.12	mg/kg	07.10.19 02.37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	125	15.0	8.12	mg/kg	07.10.19 02.37		1
Total TPH	PHC635	3510	15.0	7.99	mg/kg	07.10.19 02.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.10.19 02.37	
o-Terphenyl	84-15-1	88	%	70-135	07.10.19 02.37	



# Certificate of Analytical Results 630254



## Tetra Tech- Midland, Midland, TX

EOG Diamond 31 Fed Com 2H

Sample Id: **Bottom Hole 53 (0-1' BEB)**

Matrix: Soil

Date Received: 07.09.19 15.02

Lab Sample Id: 630254-004

Date Collected: 07.09.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DVM

% Moisture:

Analyst: FOV

Date Prep: 07.09.19 17.00

Basis: Wet Weight

Seq Number: 3094959

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.108</b>	0.0200	0.00385	mg/kg	07.10.19 02.41		10
<b>Toluene</b>	108-88-3	<b>0.637</b>	0.0200	0.00456	mg/kg	07.10.19 02.41		10
<b>Ethylbenzene</b>	100-41-4	<b>0.466</b>	0.0200	0.00565	mg/kg	07.10.19 02.41		10
<b>m,p-Xylenes</b>	179601-23-1	<b>5.84</b>	0.0400	0.0101	mg/kg	07.10.19 02.41		10
<b>o-Xylene</b>	95-47-6	<b>3.97</b>	0.0200	0.00344	mg/kg	07.10.19 02.41		10
<b>Total Xylenes</b>	1330-20-7	<b>9.81</b>	0.0200	0.00344	mg/kg	07.10.19 02.41		10
<b>Total BTEX</b>		<b>11.0</b>	0.0200	0.00344	mg/kg	07.10.19 02.41		10
<b>Surrogate</b>	<b>Cas Number</b>		<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4		260	%	70-130	07.10.19 02.41	**	
1,4-Difluorobenzene	540-36-3		92	%	70-130	07.10.19 02.41		





**Tetra Tech- Midland**  
EOG Diamond 31 Fed Com 2H

**Analytical Method: Chloride by EPA 300**

Seq Number: 3094879

MB Sample Id: 7681691-1-BLK

Matrix: Solid

LCS Sample Id: 7681691-1-BKS

Prep Method: E300P

Date Prep: 07.09.19

LCSD Sample Id: 7681691-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	247	99	245	98	90-110	1	20	mg/kg	07.09.19 19:04	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3094879

Parent Sample Id: 630254-001

Matrix: Soil

MS Sample Id: 630254-001 S

Prep Method: E300P

Date Prep: 07.09.19

MSD Sample Id: 630254-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	213	250	463	100	455	97	90-110	2	20	mg/kg	07.09.19 19:18	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3094854

MB Sample Id: 7681678-1-BLK

Matrix: Solid

LCS Sample Id: 7681678-1-BKS

Prep Method: TX1005P

Date Prep: 07.09.19

LCSD Sample Id: 7681678-1-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	1100	110	1120	112	70-135	2	20	mg/kg	07.09.19 17:00	
Diesel Range Organics (DRO)	<8.13	1000	1170	117	1180	118	70-135	1	20	mg/kg	07.09.19 17:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		95		92		70-135	%	07.09.19 17:00
o-Terphenyl	96		103		101		70-135	%	07.09.19 17:00

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3094854

Parent Sample Id: 630113-001

Matrix: Soil

MS Sample Id: 630113-001 S

Prep Method: TX1005P

Date Prep: 07.09.19

MSD Sample Id: 630113-001 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)	9.52	997	994	99	1040	103	70-135	5	20	mg/kg	07.09.19 18:14	
Diesel Range Organics (DRO)	<8.10	997	1090	109	1170	117	70-135	7	20	mg/kg	07.09.19 18:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		96		70-135	%	07.09.19 18:14
o-Terphenyl	92		99		70-135	%	07.09.19 18:14

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

[D] = 100\*(C-A) / B  
RPD = 200\* |(C-E) / (C+E)|  
[D] = 100 \* (C) / [B]  
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



**Tetra Tech- Midland**  
EOG Diamond 31 Fed Com 2H

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3094959

MB Sample Id: 7681660-1-BLK

Matrix: Solid

LCS Sample Id: 7681660-1-BKS

Prep Method: SW5030B

Date Prep: 07.09.19

LCSD Sample Id: 7681660-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.0774	78	0.0887	89	70-130	14	35	mg/kg	07.10.19 05:13	
Toluene	<0.000453	0.0994	0.0754	76	0.0865	87	70-130	14	35	mg/kg	07.10.19 05:13	
Ethylbenzene	<0.000561	0.0994	0.0859	86	0.0964	97	70-130	12	35	mg/kg	07.10.19 05:13	
m,p-Xylenes	<0.00101	0.199	0.173	87	0.196	98	70-130	12	35	mg/kg	07.10.19 05:13	
o-Xylene	<0.000342	0.0994	0.0833	84	0.0941	94	70-130	12	35	mg/kg	07.10.19 05:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		93		97		70-130	%	07.10.19 05:13
4-Bromofluorobenzene	98		106		113		70-130	%	07.10.19 05:13

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3094959

Parent Sample Id: 630227-001

Matrix: Soil

MS Sample Id: 630227-001 S

Prep Method: SW5030B

Date Prep: 07.09.19

MSD Sample Id: 630227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.0762	77	0.0797	80	70-130	4	35	mg/kg	07.10.19 05:57	
Toluene	<0.000453	0.0994	0.0751	76	0.0780	78	70-130	4	35	mg/kg	07.10.19 05:57	
Ethylbenzene	<0.000561	0.0994	0.0758	76	0.0814	82	70-130	7	35	mg/kg	07.10.19 05:57	
m,p-Xylenes	<0.00101	0.199	0.159	80	0.166	83	70-130	4	35	mg/kg	07.10.19 05:57	
o-Xylene	<0.000342	0.0994	0.0807	81	0.0841	84	70-130	4	35	mg/kg	07.10.19 05:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		70-130	%	07.10.19 05:57
4-Bromofluorobenzene	118		116		70-130	%	07.10.19 05:57

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

[D] = 100\*(C-A) / B  
RPD = 200\* |(C-E) / (C+E)|  
[D] = 100 \* (C) / [B]  
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Analysis Request of Custody Record



**Tetra Tech, Inc.**

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

*WJCSH*

Client Name: **EOG** Site Manager: **Mike Carmona**

Project Name: **Diamond 31 Fed Com 2H**

Project Location: **Lea County, New Mexico** Project #: **212C-MD-01758**

Invoice to: **EOG (attn: Todd Wells)**

Receiving Laboratory: **Xenco Midland, TX** Sampler Signature: **Stephen Reyes**

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None			
	Bottom Hole 50 (0-1' BEB)	7/9/2019		X				X			1 N	
	Bottom Hole 51 (0-1' BEB)	7/9/2019		X				X			1 N	
	Bottom Hole 52 (0-1' BEB)	7/9/2019		X				X			1 N	
	Bottom Hole 53 (0-1' BEB)	7/9/2019		X				X			1 N	

Relinquished by: *[Signature]* Date: **7-9-19** Time: **1502**

Received by: *[Signature]* Date: **7/9/19** Time: **1502**

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

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

LAB USE ONLY

REMARKS:

STANDARD

RUSH: Same Day **24 hr** 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Sample Temperature: **25/23**

(Circle) HAND DELIVERED FEDEX UPS Tracking # \_\_\_\_\_

ORIGINAL COPY

**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 43956

**CONDITIONS**

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 43956
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
chensley	The OCD will not grant a deferral due to DTW 18'.	9/23/2021
chensley	Closure report due 12/23/2021	9/23/2021