

## Report Type: Closure Report 2RP-5501

## General Site Information:

Site:	Wyatt BHT State #1					
Company:	EOG Resources					
Section, Township and Range	Unit C	Sec. 06	T 25S	R 30E		
County:	Eddy County					
GPS:	32.16535			-103.92085		
Surface Owner:	State					
Directions:	From the intersection of Longhorn Rd and Pipeline Rd No 1, travel northeast on Pipeline Rd No. 1 for approx. 7.0 miles, turn north onto lease road and continue for 2.18 mi., turn north onto lease road and continue for 1.2 miles to location.					

## Release Data:

Date Released:	6/15/2019
Type Release:	Produced Water & Oil
Source of Contamination:	Flowline
Fluid Released:	4 bbls water & 4 bbl oil
Fluids Recovered:	0 bbls

## Official Communication:

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

## Site Characterization

Depth to Groundwater:	260'
Karst Potential:	Low
Surface Water:	160' from draw

## 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



October 1, 2020

Mr. Mike Bratcher  
District Supervisor  
Oil Conservation Division, District 2  
811 S. First Street  
Artesia, New Mexico 88210

**Re: Closure Report for the EOG Resources, Wyatt BHT State #1, Unit C, Section 06, Township 25 South, Range 30 East, Eddy County, New Mexico. 2RP-5501**

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess a release that occurred at the Wyatt BHT State #1, Unit C, Section 06, Township 25 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are 32.165351°, -103.920848°. 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 June 15, 2019 and released approximately 4 barrels of produced water and 4 barrels of oil due to a hole in the flowline. The release occurred west of the well pad along the lease road and impacted areas measuring approximately 5' x 366' and 50' x 77'. The C-141 form is included in Appendix A.

### **Site Characterization**

A site characterization was performed for the site and no lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The site is in a low karst potential area. However, the site is located approximately 160 feet from a draw. The nearest well is listed on the USGS National Water Information data base in Section 07, approximately 1.10 miles south of the site and has a reported depth to groundwater of 264' below surface. The groundwater data is shown in Appendix B.

Tetra Tech

901 W. Wall Street, Suite 100, Midland, TX 79701

Tel 432.682.4559 [www.tetrattech.com](http://www.tetrattech.com)

**TETRA TECH**

## Regulatory

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

Tetra Tech personnel were onsite on June 28, 2019 to investigate and sample the release area. A total of five (5) auger holes (AH-1 through AH-5) were installed to total depths ranging from 2'-2.5' to 5'-5.5' below surface. Selected 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 laboratory reports and chain-of-custody forms are included in Appendix C. The release area and sample locations are shown in Figure 3.

Referring to Table 1, the areas of AH-1 and AH-3 did not show any benzene, total BTEX, TPH, or chloride concentrations above the RRALs.

The area of AH-2 showed a total BTEX concentration of 56.3 mg/kg at 0-1' that declined with depth, as well as TPH concentrations above 100 mg/kg and chloride concentrations above 600 mg/kg that were not vertically defined. The area of AH-5 showed TPH concentrations above 100 mg/kg from surface to 1'-1.5', which declined with depth to 59.9 mg/kg at 2'-2.5' below surface. The area of AH-3 showed a chloride high of 3,740 mg/kg at 0-1', which declined with depth to 40.6 mg/kg at 1'-1.5' below surface.

## Remediation Activities

Based on the laboratory data, Tetra Tech personnel returned to the site between October 3<sup>rd</sup> and October 8<sup>th</sup>, 2019 to supervise the remediation activities at the site. The area of AH-2 was excavated to 7.0', the area of AH-3 to 1.5', and the area of AH-5 to 2.0' below surface. All excavated material was hauled for proper disposal. The site was then backfilled with clean material to surface grade.

Composite bottom hole and sidewall samples were collected every 200 square feet to ensure proper removal of the impacted soils. A total of 12 bottom hole samples were collected (Bottom Hole #1 through Bottom Hole #12) and 18 sidewall samples were collected (North Sidewall 1 through North Sidewall 5, East Sidewall 1 through East Sidewall 4, South Sidewall 1 through South Sidewall 5, and West Sidewall 1 through West Sidewall 4). All collected confirmation 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 2. The excavation areas and sample locations are shown in Figure 4.



**TETRA TECH**

Referring to Table 2, all confirmation samples showed benzene, total BTEX, TPH, and chloride concentrations below the RRALs.

### **Conclusion**

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

Respectfully submitted,  
TETRA TECH



Clair Gonzales, P.G.,  
Project Manager

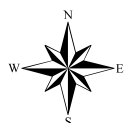
cc: James Kennedy – EOG  
Todd Wells - EOG



## Figures



● SITE LOCATION



0 10,416.5 20,833

Approximate Scale in Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community  
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO,



STATE LOCATOR MAP

#### OVERVIEW MAP

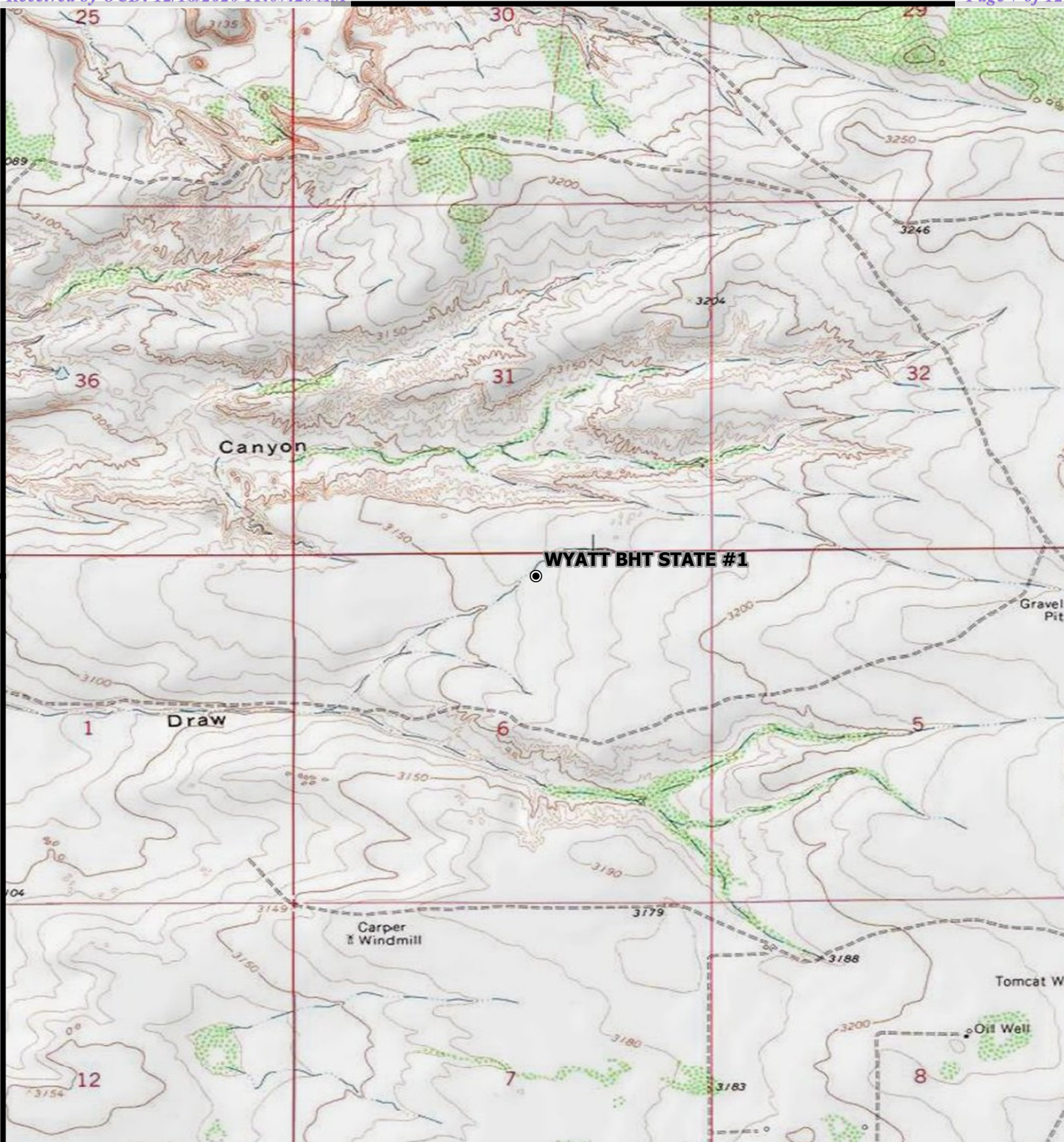
#### WYATT BHT STATE #1

Property Located at coordinates 32.165617°, -103.919451°  
EDDY COUNTY, NEW MEXICO

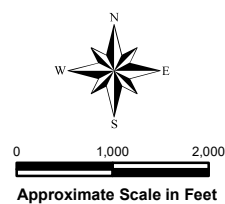


FIGURE  
1





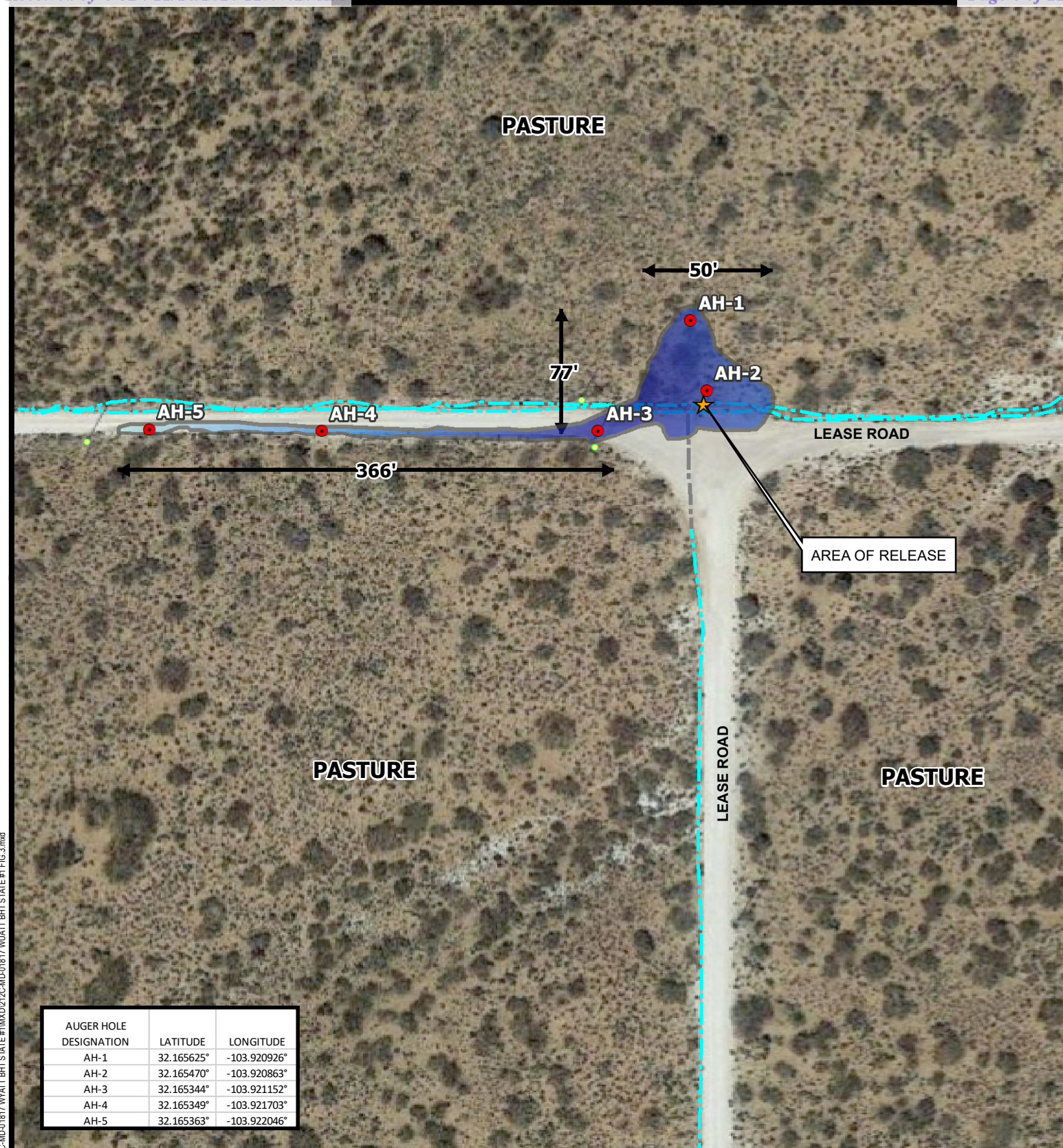
SITE LOCATION



TOPOGRAPHIC MAP  
WYATT BHT STATE #1  
Property Located at coordinates 32.165617°, -103.919451°  
EDDY COUNTY, NEW MEXICO

FIGURE  
2





AUGER HOLE DESIGNATION	LATITUDE	LONGITUDE
AH-1	32.165625°	-103.920926°
AH-2	32.165470°	-103.920863°
AH-3	32.165344°	-103.921152°
AH-4	32.165349°	-103.921703°
AH-5	32.165363°	-103.922046°

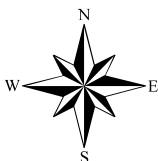
● AUGERHOLE SAMPLE LOCATIONS

● POWER POLE

--- BURIED PIPELINE

--- ABOVEGROUND POLYPIPE

SPILL ASSESSMENT



0 60 120  
Approximate Scale in Feet

#### SPILL ASSESSMENT MAP

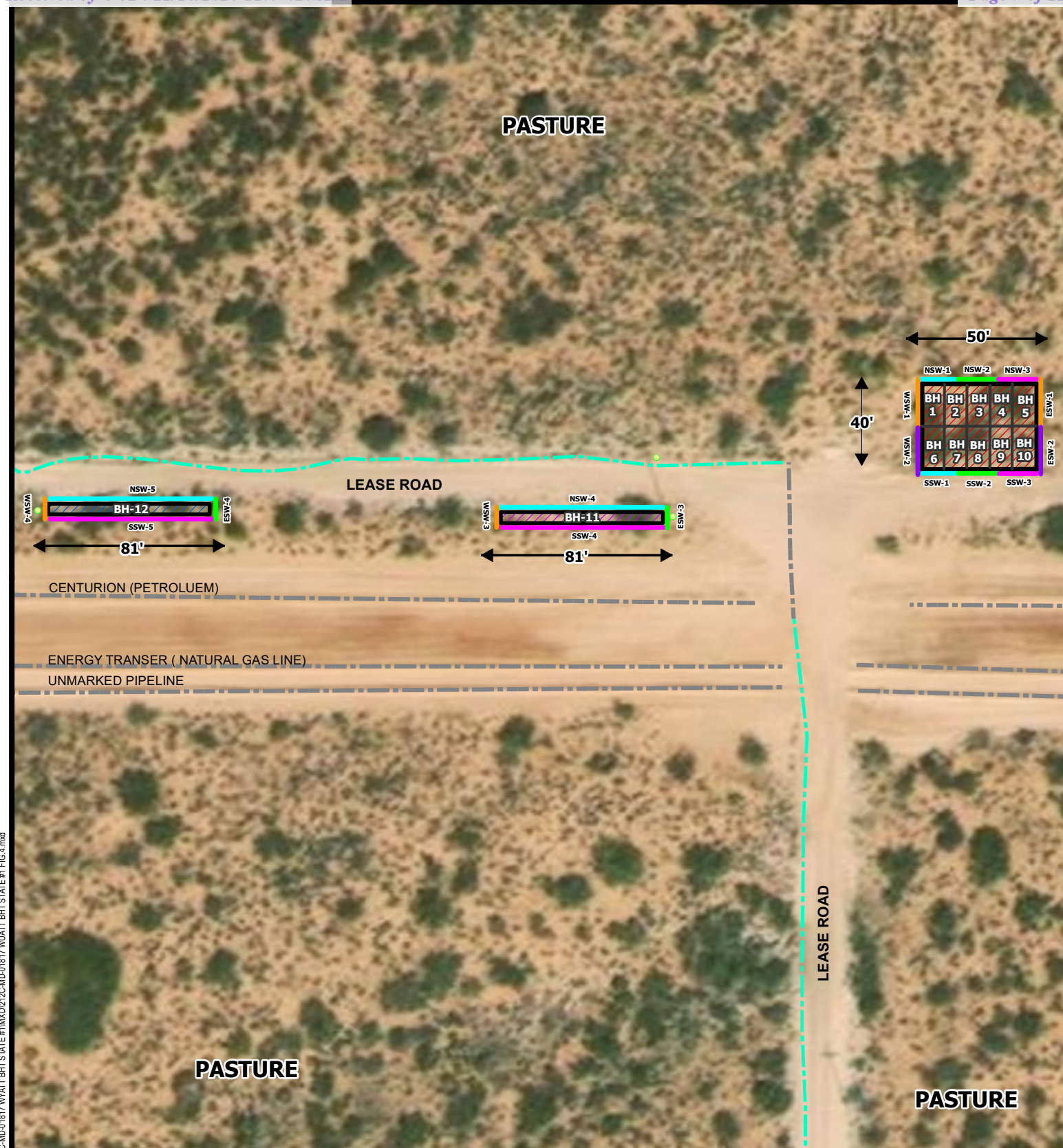
WYATT BHT STATE #1

Property Located at coordinates 32.165617°, -103.919451°  
EDDY COUNTY, NEW MEXICO



FIGURE  
3





BH= BOTTOM HOLE

● POWER POLE

1.5' EXCAVATED DEPTH AREA

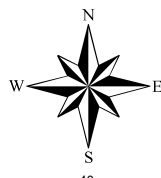
2.0' EXCAVATED DEPTH AREA

EXCAVATION OUTLINE

BURIED PIPELINE

ABOVEGROUND POLYPIPE

SIDEWALL SAMPLE LOCATIONS



0 40 80

Approximate Scale in Feet

## EXCAVATION AREA &amp; DEPTH MAP

WYATT BHT STATE #1

Property Located at coordinates 32.165617°, -103.919451°  
EDDY COUNTY, NEW MEXICOProject #:  
212C-MD-01817  
Date:10-17-2019FIGURE  
4

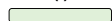
## Tables

**Table 1**  
**EOG**  
**Wyatt BHT State #1**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
AH-1	6/28/2019	0-1	X		<15.0	29.1	<15.0	29.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	396
	"	1-1.5	X		<14.9	<14.9	<14.9	<14.9	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	248
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	52.5
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	10.8
	"	4-4.5	X		-	-	-	-	-	-	-	-	-	<5.03
	"	5-5.5	X		-	-	-	-	-	-	-	-	-	10.9
AH-2	6/28/2019	0-1		X	1,700	4,970	246	<b>6,920</b>	0.136	6.36	6.63	43.2	<b>56.3</b>	<b>3,310</b>
	"	1-1.5		X	1,460	4,140	191	<b>5,790</b>	0.101	4.64	5.20	33.0	42.9	<b>4,090</b>
	"	2-2.5		X	<15.0	171	<15.0	<b>171</b>	-	-	-	-	-	<b>5,150</b>
	"	3-3.5		X	<15.0	64.3	<15.0	64.3	-	-	-	-	-	<b>940</b>
	"	4-4.5		X	<15.0	405	37.1	<b>442</b>	-	-	-	-	-	<b>1,330</b>
AH-3	6/28/2019	0-1		X	<15.0	241	29.8	271	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<b>3,740</b>
	"	1-1.5	X		<15.0	52.9	<15.0	52.9	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	40.6
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	141
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	117
	"	4-4.5	X		-	-	-	-	-	-	-	-	-	<4.95
AH-4	6/28/2019	0-1	X		<14.9	57.1	<14.9	57.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	388
	"	1-1.5	X		<15.0	30.7	<15.0	30.7	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	170
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	491
AH-5	6/28/2019	0-1		X	76.4	743	48.6	<b>868</b>	<0.0020	<0.0020	0.0028	0.0379	0.0407	255
	"	1-1.5		X	<15.0	154	<15.0	<b>154</b>	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	94.7
	"	2-2.5	X		<15.0	59.9	<15.0	59.9	-	-	-	-	-	111
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	133

(-)

Not Analyzed



Excavated Depths

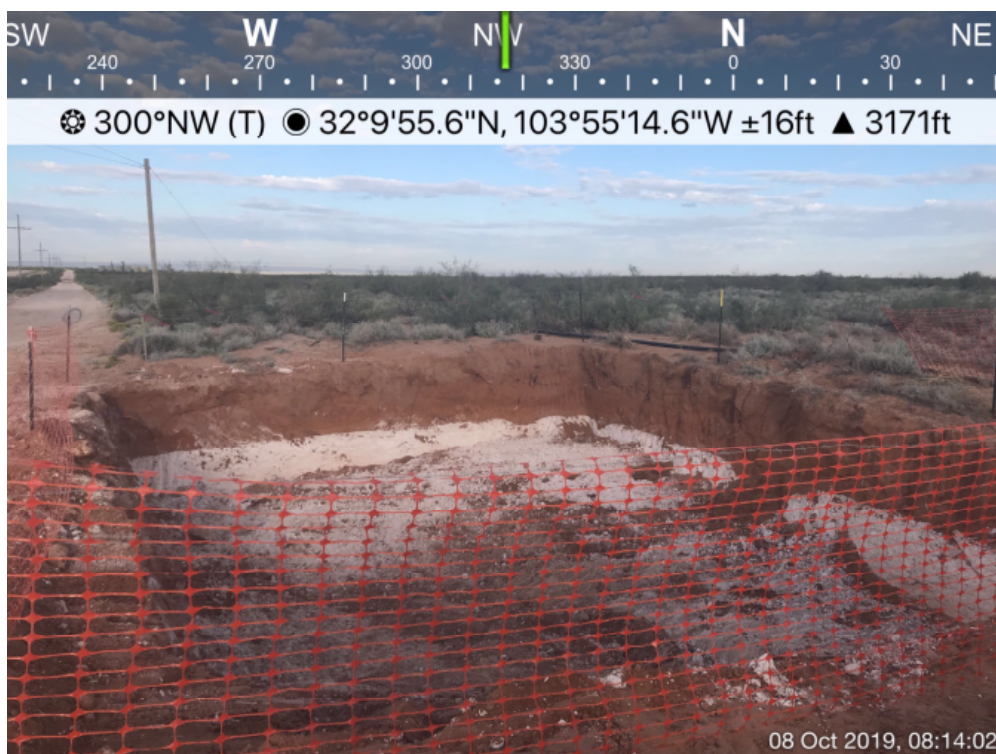
**Table 2**  
**EOG**  
**Wyatt BHT State #1**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Excavation Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
North Sidewall 1	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
North Sidewall 2	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
North Sidewall 3	10/3/2019	-	X		<10.0	27.8	13.4	41.2	<0.050	<0.050	<0.050	<0.150	<0.300	112
North Sidewall 4	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
North Sidewall 5	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
East Sidewall 1	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
East Sidewall 2	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
East Sidewall 3	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
East Sidewall 4	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
South Sidewall 1	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
South Sidewall 2	10/3/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
South Sidewall 3	10/7/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
South Sidewall 4	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
South Sidewall 5	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
West Sidewall 1	10/3/2019	-	X		<10.0	13.9	<10.0	13.9	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
West Sidewall 2	10/7/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
West Sidewall 3	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	240
West Sidewall 4	10/8/2019	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
Bottom Hole #1	10/3/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole #2	10/3/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole #3	10/3/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole #4	10/3/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole #5	10/3/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole #6	10/7/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Bottom Hole #7	10/7/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
Bottom Hole #8	10/7/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
Bottom Hole #9	10/4/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	304
Bottom Hole #10	10/4/2019	7.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	320
Bottom Hole #11	10/8/2019	1.5	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole #12	10/8/2019	2.0	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144



## Photos

EOG Resources  
Wyatt BHT State #1  
Eddy County, New Mexico



View Northwest – Excavated Area of AH-2



View East – Excavated Area of AH-3

EOG Resources  
Wyatt BHT State #1  
Eddy County, New Mexico



TETRA TECH



View East – Excavated Area of AH-5

## 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	NAB1917737111
District RP	2RP-5501
Facility ID	
Application ID	pAB1917736844

## 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) NAB1917737111
Contact mailing address 5509 Champions Drive Midland, TX 79706	

### Location of Release Source

Latitude 32.165688° Longitude -103.919651°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Wyatt BHT State #1	Site Type EOG Flow Line
Date Release Discovered 6/15/19	API# (if applicable) 30-015-34553

Unit Letter	Section	Township	Range	County
C	6	25S	30E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 4	Volume Recovered (bbls) 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 4	Volume Recovered (bbls) 0
	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 LO found a hole in the production poly flow line located approximately 250-feet west of the well pad along the north side of the lease road at GPS coordinates: 32.165351°, -103.920848°. Approximately 8 bbls of oil and water released from the flow line and none was recovered.



Incident ID	NAB1917737111
District RP	2RP-5501
Facility ID	
Application ID	pAB1917736844

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> 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: <u>Todd Wells</u> Title: <u>Environmental Specialist</u>  Signature: <u>Todd Wells</u> Date: <u>6-19-19</u>  email: <u>Todd_Wells@eogresources.com</u> Telephone: <u>(432) 686-3613</u>
<b><u>OCD Only</u></b>  Received by: <u>Amalia Bustamante</u> Date: <u>6/26/2019</u>

Incident ID	NAB1917737111
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.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	NAB1917737111
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: Cristina Eads Date: 10/9/2020



Incident ID	NAB1917737111
District RP	
Facility ID	
Application ID	

## Closure

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

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

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

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

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

**OCD Only**

Received by: Cristina Eads Date: 10/9/2020

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

Closure Approved by:  Date: 12/18/2020

Printed Name: Cristina Eads Title: Environmental Specialist

## Appendix B

**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**EOG - Wyatt BHT State #1H, Eddy County, New Mexico**

24 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
160	17	4	16	15	14
18			18	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	231	20	21	22	24
150	29	28	27	400	25
30	29	28	27	26	25
31	32	33	34	35	36

24 South			31 East		
6	5	4	3	2	1
7	8	9	10	192	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			29 East		
6	5	4	3	2	1
40	8	9	10	11	12
18	17	16	40	14	13
19	20	21	60	23	24
30	29	28	27	26	25
30	29	28	27	26	25
31	32	115	33	34	35

25 South			30 East		
6	5	4	3	2	295
7	264	8	9	295	12
18	17	16	15	14	390
19	20	21	265	23	24
30	29	28	27	26	25
30	29	28	27	26	25
31	32	33	34	35	36

25 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	390	23	24
30	29	28	27	26	25
30	29	28	27	26	25
31	32	33	34	35	36

26 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	125	23	24
30	29	28	69	26	25
30	29	28	27	26	25
31	32	33	34	35	36

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

26 South			31 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
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)

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

**34** NMOCD - Groundwater Data

**121** Abandoned Waterwell (recently measured)



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 4	Q 16	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 01379</a>	C		ED	4	4	3	10	25S	30E	606571	3556355*	400		
<a href="#">C 03716 POD1</a>	CUB		ED	4	2	2	02	25S	30E	609069	3559211	600	425	175
<a href="#">C 03781 POD1</a>	CUB		ED	3	3	3	13	25S	30E	609306	3554761	720	325	395
<a href="#">C 03782 POD1</a>	CUB		ED	4	3	3	28	25S	30E	604526	3551444	805	277	528
<a href="#">C 03891 POD1</a>	CUB		ED	4	4	2	01	25S	30E	610608	3558890	635	429	206

Average Depth to Water: **364 feet**

Minimum Depth: **277 feet**

Maximum Depth: **429 feet**

Record Count: 5

PLSS Search:

Township: 25S

Range: 30E

\*UTM location was derived from PLSS - see Help

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



# New Mexico Office of the State Engineer

## 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,  
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C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 4	Q 16	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 01379</a>	C		ED	4	4	3	10	25S	30E	606571	3556355*	400		
<a href="#">C 03716 POD1</a>	CUB		ED	4	2	2	02	25S	30E	609069	3559211	600	425	175
<a href="#">C 03781 POD1</a>	CUB		ED	3	3	3	13	25S	30E	609306	3554761	720	325	395
<a href="#">C 03782 POD1</a>	CUB		ED	4	3	3	28	25S	30E	604526	3551444	805	277	528
<a href="#">C 03891 POD1</a>	CUB		ED	4	4	2	01	25S	30E	610608	3558890	635	429	206

Average Depth to Water: **364 feet**

Minimum Depth: **277 feet**

Maximum Depth: **429 feet**

Record Count: 5

PLSS Search:

Township: 25S

Range: 30E

\*UTM location was derived from PLSS - see Help

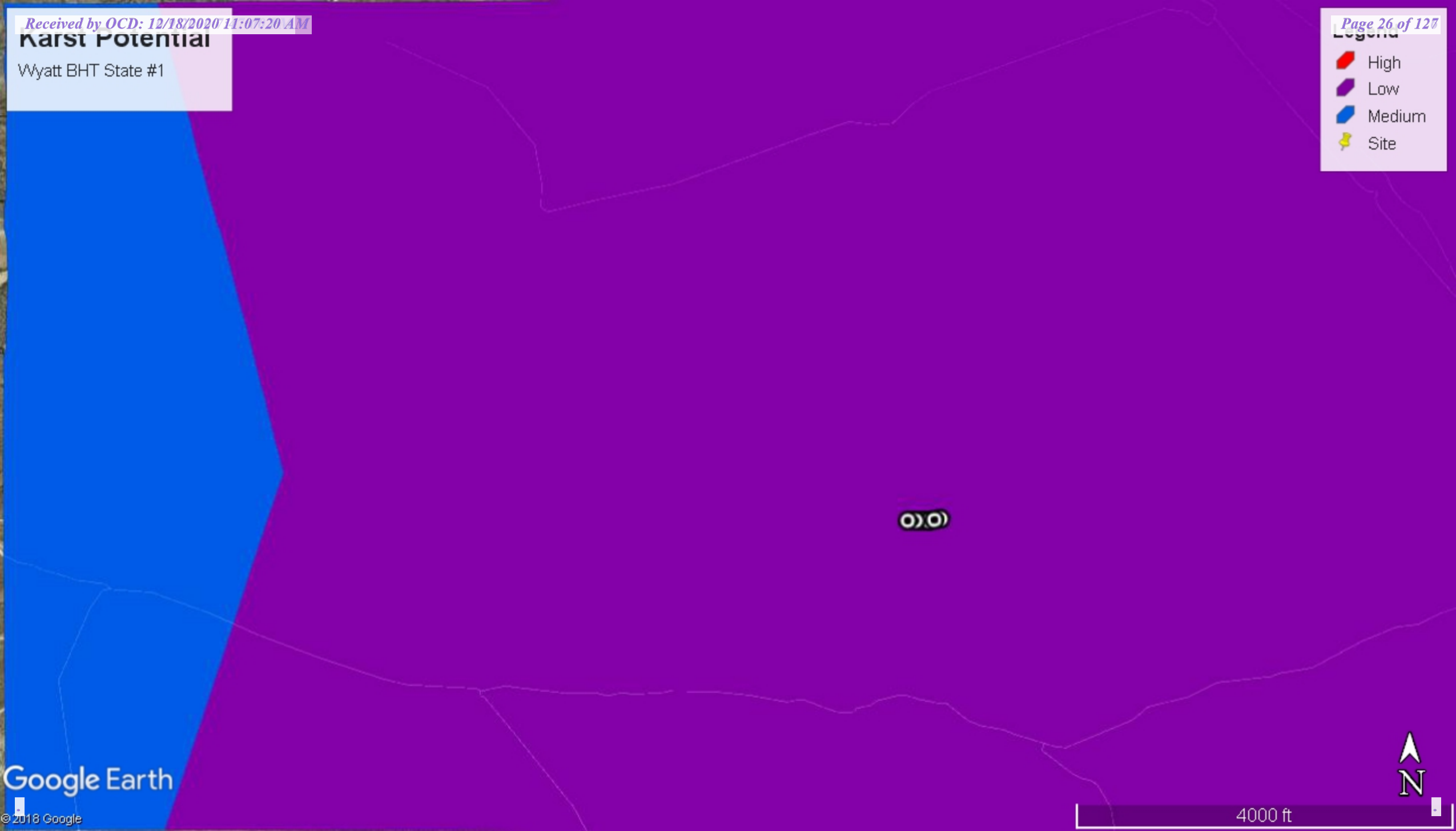
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

# Karst Potential

Wyatt BHT State #1

**Legend**

- High
- Low
- Medium
- Site





## NFHL Web Mapping Application



Data Layers

Measure

Search Result

Y:32.165415 X:-103.920851

100m  
300ft

FEMA | Bureau of Land Management, Texas Parks & \



## 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**



## Appendix C



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

---

October 07, 2019

MIKE CARMONA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WYATT BHT STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 10/04/19 16:20.

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". The signature is written in a cursive, flowing style.

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: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH # 1 SIDEWALL (H903393-01)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12		
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858		
Total BTEX	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 79.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/07/2019	ND	416	104	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 91.2 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH # 2 SIDEWALL (H903393-02)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12		
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858		
Total BTEx	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 79.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/07/2019	ND	416	104	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 95.2 % 41-142

Surrogate: 1-Chlorooctadecane 97.7 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH # 3 SIDEWALL (H903393-03)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12	
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858	
Total BTEx	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 78.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/07/2019	ND	416	104	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	27.8	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	13.4	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 96.7 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EAST # 1 SIDEWALL (H903393-04)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12		
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858		
Total BTEx	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 78.5 % 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	144	16.0	10/07/2019	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 98.9 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EAST # 2 SIDEWALL (H903393-05)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12		
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858		
Total BTEx	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 80.2 % 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	160	16.0	10/07/2019	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 97.9 % 41-142

Surrogate: 1-Chlorooctadecane 99.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SOUTH # 1 SIDEWALL (H903393-06)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12	
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858	
Total BTEx	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 79.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/07/2019	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	10/07/2019	ND	199	99.3	200	1.79	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	199	99.6	200	1.01	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 95.4 % 41-142

Surrogate: 1-Chlorooctadecane 95.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SOUTH # 2 SIDEWALL (H903393-07)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12	
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858	
Total BTEx	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 78.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 85.2 % 41-142

Surrogate: 1-Chlorooctadecane 87.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WEST # 1 SIDEWALL (H903393-08)**

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	10/07/2019	ND	1.85	92.3	2.00	2.12		
Toluene*	<0.050	0.050	10/07/2019	ND	1.82	91.0	2.00	0.574		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.79	89.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	5.53	92.2	6.00	0.858		
Total BTEx	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 77.0 % 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	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	13.9	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 81.2 % 41-142

Surrogate: 1-Chlorooctadecane 83.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 1 ( 7' BEB ) (H903393-09)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTX	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 82.3 % 41-142

Surrogate: 1-Chlorooctadecane 83.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 2 ( 7' BEB ) (H903393-10)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTX	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 83.9 % 41-142

Surrogate: 1-Chlorooctadecane 85.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 3 ( 7' BEB ) (H903393-11)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTX	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 78.4 % 41-142

Surrogate: 1-Chlorooctadecane 78.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 4 ( 7' BEB ) (H903393-12)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTX	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 78.8 % 41-142

Surrogate: 1-Chlorooctadecane 78.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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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: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 5 ( 7' BEB ) (H903393-13)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTX	<0.300	0.300	10/07/2019	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 78.3 % 41-142

Surrogate: 1-Chlorooctadecane 78.3 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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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: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 10 ( 7' BEB ) (H903393-14)**

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	10/07/2019	ND	2.25	113	2.00	0.131		
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844		
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661		
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505		
Total BTEx	<0.300	0.300	10/07/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 77.5 % 41-142

Surrogate: 1-Chlorooctadecane 78.6 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 10/04/2019  
 Reported: 10/07/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 9 ( 7' BEB ) (H903393-15)**

BTX 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	10/07/2019	ND	2.25	113	2.00	0.131	
Toluene*	<0.050	0.050	10/07/2019	ND	1.96	98.2	2.00	0.844	
Ethylbenzene*	<0.050	0.050	10/07/2019	ND	1.98	99.1	2.00	0.661	
Total Xylenes*	<0.150	0.150	10/07/2019	ND	6.06	101	6.00	0.0505	
Total BTX	<0.300	0.300	10/07/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	304	16.0	10/07/2019	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	10/07/2019	ND	201	101	200	11.7	
DRO >C10-C28*	<10.0	10.0	10/07/2019	ND	196	98.0	200	6.25	
EXT DRO >C28-C36	<10.0	10.0	10/07/2019	ND					

Surrogate: 1-Chlorooctane 79.2 % 41-142

Surrogate: 1-Chlorooctadecane 81.2 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

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

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Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager

61 jo 81 ead

## Analysis Request of Custody Record

Page 1 of 2



Tetra Tech, Inc.

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

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Wyatt BHT State #1			
Project Location: Eddy Co, NM		Project #: 212C-MD-01817	
Invoice to: EOG - James Kennedy		Sampler Signature: Conner Moehring	
Receiving Laboratory: CARDINAL			
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>		
1	NORTH #1 SIDEWALL	10/3/19		X				X	
2	NORTH 2 SIDEWALL	10/3/19		X				X	
3	NORTH 3 SIDEWALL	10/3/19		X				X	
4	EAST 1 SIDEWALL	10/3/19		X				X	
5	EAST 2 SIDEWALL	10/4/19		X				X	
6	SOUTH 1 SIDEWALL	10/4/19		X				X	
7	SOUTH 2 SIDEWALL	10/4/19		X				X	
8	WEST 1 SIDEWALL	10/3/19		X				X	
9	Bottom Hole #1 (7 BEB)	10/3/19		X				X	
10	Bottom Hole #2 (7 BEB)	10/3/19		X				X	

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
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LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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4	X		
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9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
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8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

LAB USE ONLY		REMARKS:	
LAB #	LAB USE ONLY	STANDARD	REMARKS
1	X		
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8	X		
9	X		
10	X		

Page 19 of 19

### 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

Client Name:						EOG									
Project Name:						Wyatt BHT State #1									
Site Manager:						Mike Carmona									
Project Location: (county, state)						Eddy Co, NM						Project #:		212C-MD-01817	
Invoice to:						EOG - James Kennedy									
Receiving Laboratory:						CARBONAL						Sampler Signature:		Conner Moehring	
Comments:															

HQ03393 LAB #  ( LAB USE ONLY )	SAMPLE IDENTIFICATION					SAMPLING		MATRIX	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)			
	YEAR: 2019				DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None	# CONTAINERS	FILTERED (Y/N)
	11	Bottom Hole#3 (7' BEB)	10/3/14		X								1	2
	12	Bottom Hole#4 (7' BEB)	10/3/14		X								1	2
	13	Bottom Hole#5 (7' BEB)	10/3/14		X								1	2
	14	Bottom Hole#10 (7' BEB)	10/4/14		X								1	2
	15	Bottom Hole#9 (7' BEB)	10/4/14		X								1	2
Relinquished by:						Date:	Time:	Received by:		Date:	Time:			
Conner Moehring						10/4/14	1620	James Moeckerle		10-4-14	1620			
Relinquished by:						Date:	Time:	Received by:		Date:	Time:			
Relinquished by:						Date:	Time:	Received by:		Date:	Time:			

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

X	BTEX 8021B	BTEX 8260B
	TPH TX1005 (Ext to C35)	
X	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	
	<b>Hold</b>	

**LAB USE ONLY**

REMARKS

STANDARD

Sample Temperature

2.30 #97

☐ Special Report Limits or TRRP Report

(Circle) ~~HAND DELIVERED~~ FEDEX UPS Tracking #

ORIGINAL COPY





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

---

October 09, 2019

MIKE CARMONA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WYATT BHT STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 10/08/19 13:00.

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". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/09/2019	Sampling Type:	Soil
Project Name:	WYATT BHT STATE #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 01817	Sample Received By:	Tamara Oldaker
Project Location:	EOG-EDDY CO., NM		

**Sample ID: BOTTOM HOLE # 6 ( 7' BEB ) (H903414-01)**

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	10/08/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/08/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/08/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/08/2019	ND	5.47	91.1	6.00	0.463	
Total BTEX	<0.300	0.300	10/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 83.7 % 41-142

Surrogate: 1-Chlorooctadecane 86.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/07/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 7 ( 7' BEB ) (H903414-02)**

BTX 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	10/08/2019	ND	1.87	93.3	2.00	0.838		
Toluene*	<0.050	0.050	10/08/2019	ND	1.84	92.0	2.00	0.0585		
Ethylbenzene*	<0.050	0.050	10/08/2019	ND	1.82	91.1	2.00	0.907		
Total Xylenes*	<0.150	0.150	10/08/2019	ND	5.47	91.1	6.00	0.463		
Total BTX	<0.300	0.300	10/08/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 80.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 90.1 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/07/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 8 ( 7' BEB ) (H903414-03)**

BTX 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	10/08/2019	ND	1.87	93.3	2.00	0.838		
Toluene*	<0.050	0.050	10/08/2019	ND	1.84	92.0	2.00	0.0585		
Ethylbenzene*	<0.050	0.050	10/08/2019	ND	1.82	91.1	2.00	0.907		
Total Xylenes*	<0.150	0.150	10/08/2019	ND	5.47	91.1	6.00	0.463		
Total BTX	<0.300	0.300	10/08/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/07/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SOUTH 3 SIDEWALL (H903414-04)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 97.4 % 41-142

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/07/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WEST 2 SIDEWALL (H903414-05)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.9 % 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	112	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 89.0 % 41-142

Surrogate: 1-Chlorooctadecane 92.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/08/2019	Sampling Date:	10/08/2019
Reported:	10/09/2019	Sampling Type:	Soil
Project Name:	WYATT BHT STATE #1	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 01817	Sample Received By:	Tamara Oldaker
Project Location:	EOG-EDDY CO., NM		

**Sample ID: BOTTOM HOLE # 11 ( 1.5' BEB ) (H903414-06)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838		
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585		
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907		
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463		
Total BTX	<0.300	0.300	10/09/2019	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 97.2 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BOTTOM HOLE # 12 ( 2.0' BEB ) (H903414-07)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838		
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585		
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907		
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463		
Total BTX	<0.300	0.300	10/09/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 79.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 98.1 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH 4 SIDEWALL (H903414-08)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 80.9 % 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	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 95.5 % 41-142

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NORTH 5 SIDEWALL (H903414-09)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838		
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585		
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907		
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463		
Total BTX	<0.300	0.300	10/09/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 80.9 % 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	112	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 94.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.9 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SOUTH 4 SIDEWALL (H903414-10)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.2 % 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	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 97.4 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SOUTH 5 SIDEWALL (H903414-11)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 95.8 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EAST 3 SIDEWALL (H903414-12)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 96.9 % 41-142

Surrogate: 1-Chlorooctadecane 98.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EAST 4 SIDEWALL (H903414-13)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.6 % 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	112	16.0	10/09/2019	ND	416	104	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 94.6 % 41-142

Surrogate: 1-Chlorooctadecane 96.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WEST 3 SIDEWALL (H903414-14)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.7 % 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	240	16.0	10/09/2019	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 98.2 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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**Analytical Results For:**

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

Received: 10/08/2019  
 Reported: 10/09/2019  
 Project Name: WYATT BHT STATE #1  
 Project Number: 212C - MD - 01817  
 Project Location: EOG-EDDY CO., NM

Sampling Date: 10/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WEST 4 SIDEWALL (H903414-15)**

BTX 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	10/09/2019	ND	1.87	93.3	2.00	0.838	
Toluene*	<0.050	0.050	10/09/2019	ND	1.84	92.0	2.00	0.0585	
Ethylbenzene*	<0.050	0.050	10/09/2019	ND	1.82	91.1	2.00	0.907	
Total Xylenes*	<0.150	0.150	10/09/2019	ND	5.47	91.1	6.00	0.463	
Total BTX	<0.300	0.300	10/09/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/09/2019	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	10/09/2019	ND	217	109	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/09/2019	ND	213	107	200	0.704	
EXT DRO >C28-C36	<10.0	10.0	10/09/2019	ND					

Surrogate: 1-Chlorooctane 97.6 % 41-142

Surrogate: 1-Chlorooctadecane 99.8 % 37.6-147

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### Notes and Definitions

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

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

---

Celey D. Keene, Lab Director/Quality Manager



61 jo 81 ege d

## Analysis Request of Custody Record

Page 1 of 2



Tetra Tech, Inc.

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

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Wyatt BHT State #1			
Project Location: Eddy Co, NM		Project #: 212C-MD-01817	
Invoice to: EOG - James Kennedy		Sampler Signature: Conner Moehring	
Receiving Laboratory: CAGDONAL		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:	
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>	ICE	None					
														YEAR: 2019
1	Bottom Hole # 6 (7' BEB)	10/7/14		X				X			1	2	X	
2	Bottom Hole # 7 (7' BEB)	10/7/14		X				X			1	2	X	
3	Bottom Hole # 8 (7' BEB)	10/7/14		X				X			1	2	X	
4	South 3 Sidewall	10/7/14		X				X			1	2	X	
5	West 2 Sidewall	10/7/14		X				X			1	2	X	
6	Bottom Hole # 11 (1.5' BEB)	10/8/14		X				X			1	2	X	
7	Bottom Hole # 12 (2.0' BEB)	10/8/14		X				X			1	2	X	
8	North 4 Sidewall	10/8/14		X				X			1	2	X	
9	North 5 Sidewall	10/8/14		X				X			1	2	X	
10	South 4 Sidewall	10/8/14		X				X			1	2	X	

Relinquished by: <i>James Moehring</i>	Date: 10/8/14	Time: 1300	Received by: <i>James Moehring</i>	Date: 10-8-14	Time: 1300
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
------------------	-------	-------	--------------	-------	-------

LAB USE ONLY	REMARKS:
<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report	Sample Temperature 24°C #97 Corrected 2.8°C (Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

 ANALYSIS REQUEST  
 (Circle or Specify Method No.)

Hold

## Analysis Request of Chain of Custody Record

Page 2 of 2



Mike Carmona

212C-MD-01817

Conner Moehring

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
<b>Hold</b>

11

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

# Analytical Report 629639

for  
**Tetra Tech- Midland**

**Project Manager: Clair Gonzales**

**EOG - Wyatt BHT State #1**

**11-JUL-19**

Collected By: Client



**1089 N Canal Street  
Carlsbad, NM 88220**

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: **Clair Gonzales**

**Tetra Tech- Midland**

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **629639**

**EOG - Wyatt BHT State #1**

Project Address: Eddy Co, NM

**Clair Gonzales:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 629639. 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. 629639 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,

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

---

**Jessica Kramer**

Project Assistant

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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# Sample Cross Reference 629639

## Tetra Tech- Midland, Midland, TX

EOG - Wyatt BHT State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH1 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-001
AH1 (1-1.5')	S	06-28-19 00:00	1 - 1.5 ft	629639-002
AH1 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-003
AH1 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-004
AH1 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-005
AH1 (5-5.5')	S	06-28-19 00:00	5 - 5.5 ft	629639-006
AH2 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-007
AH2 (1-1.5')	S	06-28-19 00:00	1 - 1.5 ft	629639-008
AH2 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-009
AH2 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-010
AH2 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-011
AH3 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-012
AH3 (1-1.5')	S	06-28-19 00:00	0 - 1 ft	629639-013
AH3 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-014
AH3 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-015
AH3 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-016
AH4 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-017
AH4 (1-1.5')	S	06-28-19 00:00	1 - 1.5	629639-018
AH4 (2-2.5')	S	06-28-19 00:00	2 - 2.5	629639-019
AH5 (0-1')	S	06-28-19 00:00	0 - 1	629639-020
AH5 (1-1.5')	S	06-28-19 00:00	1 - 1.5	629639-021
AH5 (2-2.5')	S	06-28-19 00:00	2 - 2.5	629639-022
AH5 (3-3.5')	S	06-28-19 00:00	3 - 3.5	629639-023

**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: EOG - Wyatt BHT State #1**

Project ID:

Work Order Number(s): 629639

Report Date: 11-JUL-19

Date Received: 07/01/2019

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**Sample receipt non conformances and comments:**None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3094461 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 629639-018,629639-001.

Batch: LBA-3094810 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: 629639-020,629639-008,629639-007.

Batch: LBA-3094951 BTEX by EPA 8021B

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



## Certificate of Analysis Summary 629639



Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 11-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-001	629639-002	629639-003	629639-004	629639-005	629639-006
	<i>Field Id:</i>	AH1 (0-1')	AH1 (1-1.5')	AH1 (2-2.5')	AH1 (3-3.5')	AH1 (4-4.5')	AH1 (5-5.5')
	<i>Depth:</i>	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	5-5.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45	Jul-08-19 11:45				
	<i>Analyzed:</i>	Jul-09-19 04:04	Jul-09-19 04:26				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00200 0.00200	<0.00201 0.00201				
Toluene		<0.00200 0.00200	<0.00201 0.00201				
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201				
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402				
o-Xylene		<0.00200 0.00200	<0.00201 0.00201				
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201				
Total BTEX		<0.00200 0.00200	<0.00201 0.00201				
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-02-19 23:05	Jul-02-19 23:12	Jul-02-19 23:20	Jul-02-19 23:27	Jul-03-19 00:10	Jul-03-19 00:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		396 5.04	248 4.99	52.5 5.01	10.8 4.95	<5.03 5.03	10.9 5.00
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00	Jul-04-19 10:00				
	<i>Analyzed:</i>	Jul-05-19 01:35	Jul-05-19 01:59				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<14.9 14.9				
Diesel Range Organics (DRO)		29.1 15.0	<14.9 14.9				
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<14.9 14.9				
Total TPH		29.1 15.0	<14.9 14.9				

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Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 11-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-007	629639-008	629639-009	629639-010	629639-011	629639-012
	<i>Field Id:</i>	AH2 (0-1')	AH2 (1-1.5')	AH2 (2-2.5')	AH2 (3-3.5')	AH2 (4-4.5')	AH3 (0-1')
	<i>Depth:</i>	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	0-1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45	Jul-08-19 11:45				Jul-08-19 11:45
	<i>Analyzed:</i>	Jul-09-19 01:07	Jul-09-19 01:29				Jul-09-19 04:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				mg/kg RL
Benzene		0.136 0.101	0.101 0.100				<0.00201 0.00201
Toluene		6.36 0.101	4.64 0.100				<0.00201 0.00201
Ethylbenzene		6.63 0.101	5.20 0.100				<0.00201 0.00201
m,p-Xylenes		31.7 0.201	24.3 0.200				<0.00402 0.00402
o-Xylene		11.5 0.101	8.69 0.100				<0.00201 0.00201
Total Xylenes		43.2 0.101	33.0 0.100				<0.00201 0.00201
Total BTEX		56.3 0.101	42.9 0.100				<0.00201 0.00201
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-03-19 00:39	Jul-03-19 00:47	Jul-03-19 00:54	Jul-03-19 01:16	Jul-03-19 01:23	Jul-03-19 01:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3310 24.8	4090 25.2	5150 25.0	940 5.01	1330 4.98	3740 25.3
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00	Jul-04-19 10:00				Jul-04-19 10:00
	<i>Analyzed:</i>	Jul-05-19 02:23	Jul-05-19 03:11				Jul-05-19 03:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				mg/kg RL
Gasoline Range Hydrocarbons (GRO)		1700 15.0	1460 15.0				<15.0 15.0
Diesel Range Organics (DRO)		4970 15.0	4140 15.0				241 15.0
Motor Oil Range Hydrocarbons (MRO)		246 15.0	191 15.0				29.8 15.0
Total TPH		6920 15.0	5790 15.0				271 15.0

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Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 11-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-013	629639-014	629639-015	629639-016	629639-017	629639-018
	<i>Field Id:</i>	AH3 (1-1.5')	AH3 (2-2.5')	AH3 (3-3.5')	AH3 (4-4.5')	AH4 (0-1')	AH4 (1-1.5')
	<i>Depth:</i>	0-1 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	0-1 ft	1-1.5
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45				Jul-08-19 11:45	Jul-08-19 11:45
	<i>Analyzed:</i>	Jul-09-19 05:10				Jul-09-19 05:32	Jul-09-19 05:54
	<i>Units/RL:</i>	mg/kg RL				mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399				<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-03-19 01:37	Jul-03-19 01:45	Jul-03-19 01:52	Jul-03-19 02:14	Jul-03-19 02:21	Jul-03-19 02:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		40.6 4.99	141 5.01	117 5.00	<4.95 4.95	388 4.98	170 5.04
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00				Jul-04-19 10:00	Jul-04-19 10:00
	<i>Analyzed:</i>	Jul-05-19 03:58				Jul-05-19 04:22	Jul-05-19 04:46
	<i>Units/RL:</i>	mg/kg RL				mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0				<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		52.9 15.0				57.1 14.9	30.7 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0				<14.9 14.9	<15.0 15.0
Total TPH		52.9 15.0				57.1 14.9	30.7 15.0

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Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 11-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-019	629639-020	629639-021	629639-022	629639-023	
	<i>Field Id:</i>	AH4 (2-2.5')	AH5 (0-1')	AH5 (1-1.5')	AH5 (2-2.5')	AH5 (3-3.5')	
	<i>Depth:</i>	2-2.5	0-1	1-1.5	2-2.5	3-3.5	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>		Jul-08-19 11:45	Jul-08-19 12:20			
	<i>Analyzed:</i>		Jul-09-19 06:16	Jul-09-19 11:39			
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			
Benzene			<0.00199 0.00199	<0.00200 0.00200			
Toluene			<0.00199 0.00199	<0.00200 0.00200			
Ethylbenzene			0.00281 0.00199	<0.00200 0.00200			
m,p-Xylenes			0.0233 0.00398	<0.00399 0.00399			
o-Xylene			0.0146 0.00199	<0.00200 0.00200			
Total Xylenes			0.0379 0.00199	<0.00200 0.00200			
Total BTEX			0.0407 0.00199	<0.00200 0.00200			
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	
	<i>Analyzed:</i>	Jul-03-19 02:50	Jul-03-19 02:57	Jul-03-19 03:04	Jul-03-19 03:12	Jul-03-19 03:19	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		491 4.97	255 4.95	94.7 5.01	111 5.05	133 5.00	
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>		Jul-04-19 10:00	Jul-04-19 10:00			
	<i>Analyzed:</i>		Jul-05-19 05:10	Jul-05-19 05:34			
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)			76.4 15.0	<15.0 15.0			
Diesel Range Organics (DRO)			743 15.0	154 15.0			
Motor Oil Range Hydrocarbons (MRO)			48.6 15.0	<15.0 15.0			
Total TPH			868 15.0	154 15.0			

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*Jessica Kramer*

Jessica Kramer  
Project Assistant



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

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

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

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

+ NELAC certification not offered for this compound.

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



## Form 2 - Surrogate Recoveries

Project Name: EOG - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094461

Sample: 629639-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 01:35

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	100	94	70-135	
o-Terphenyl	32.9	50.0	66	70-135	**

Lab Batch #: 3094461

Sample: 629639-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 01:59

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.6	116	70-135	
o-Terphenyl	40.7	49.8	82	70-135	

Lab Batch #: 3094461

Sample: 629639-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 02:23

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.9	112	70-135	
o-Terphenyl	59.3	50.0	119	70-135	

Lab Batch #: 3094461

Sample: 629639-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:11

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.8	108	70-135	
o-Terphenyl	52.0	49.9	104	70-135	

Lab Batch #: 3094461

Sample: 629639-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:35

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	38.8	49.9	78	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094461

Sample: 629639-013 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:58

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	37.6	50.0	75	70-135	

Lab Batch #: 3094461

Sample: 629639-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 04:22

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.6	107	70-135	
o-Terphenyl	38.6	49.8	78	70-135	

Lab Batch #: 3094461

Sample: 629639-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 04:46

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	33.6	50.0	67	70-135	**

Lab Batch #: 3094461

Sample: 629639-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 05:10

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	47.4	49.9	95	70-135	

Lab Batch #: 3094461

Sample: 629639-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 05:34

## 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	40.0	49.9	80	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094810

Sample: 629639-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 01:07

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	70-130	
4-Bromofluorobenzene	0.0573	0.0300	191	70-130	**

Lab Batch #: 3094810

Sample: 629639-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 01:29

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	70-130	
4-Bromofluorobenzene	0.0519	0.0300	173	70-130	**

Lab Batch #: 3094810

Sample: 629639-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:04

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3094810

Sample: 629639-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:26

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3094810

Sample: 629639-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:48

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094810

Sample: 629639-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:10

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0331	0.0300	110	70-130	

Lab Batch #: 3094810

Sample: 629639-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:32

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0326	0.0300	109	70-130	

Lab Batch #: 3094810

Sample: 629639-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:54

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0327	0.0300	109	70-130	

Lab Batch #: 3094810

Sample: 629639-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 06:16

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0437	0.0300	146	70-130	**

Lab Batch #: 3094951

Sample: 629639-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 11:39

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094461

Sample: 7681387-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 20:45

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	41.6	50.0	83	70-135	

Lab Batch #: 3094810

Sample: 7681533-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 10:28

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3094951

Sample: 7681537-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 11:15

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

Lab Batch #: 3094461

Sample: 7681387-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 21:09

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 3094810

Sample: 7681533-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 08:34

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094951

Sample: 7681537-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 09:13

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3094461

Sample: 7681387-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 21:32

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

Lab Batch #: 3094810

Sample: 7681533-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 08:56

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0308	0.0300	103	70-130	

Lab Batch #: 3094951

Sample: 7681537-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 09:36

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3094461

Sample: 629498-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/04/19 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	103	99.7	103	70-135	
o-Terphenyl	39.4	49.9	79	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094810

Sample: 629496-023 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/19 09:18

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0356	0.0300	119	70-130	

Lab Batch #: 3094951

Sample: 629639-021 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 09:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3094461

Sample: 629498-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/04/19 22:44

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	99.8	102	70-135	
o-Terphenyl	38.1	49.9	76	70-135	

Lab Batch #: 3094810

Sample: 629496-023 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/19 09:40

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0304	0.0300	101	70-130	
4-Bromofluorobenzene	0.0361	0.0300	120	70-130	

Lab Batch #: 3094951

Sample: 629639-021 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 10:22

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	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.





## BS / BSD Recoveries



Project Name: EOG - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Analyst: FOV

Date Prepared: 07/08/2019

Date Analyzed: 07/08/2019

Lab Batch ID: 3094810

Sample: 7681533-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.0919	92	0.0994	0.0879	88	4	70-130	35	
Toluene	<0.00200	0.0998	0.0899	90	0.0994	0.0873	88	3	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0994	0.0952	96	6	70-130	35	
m,p-Xylenes	<0.00399	0.200	0.201	101	0.199	0.191	96	5	70-130	35	
o-Xylene	<0.00200	0.0998	0.0960	96	0.0994	0.0914	92	5	70-130	35	

Analyst: AMB

Date Prepared: 07/08/2019

Date Analyzed: 07/09/2019

Lab Batch ID: 3094951

Sample: 7681537-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00199	0.0996	0.0778	78	0.100	0.0883	88	13	70-130	35	
Toluene	<0.000454	0.0996	0.0955	96	0.100	0.104	104	9	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.109	109	0.100	0.116	116	6	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.215	108	0.201	0.229	114	6	70-130	35	
o-Xylene	0.000750	0.0996	0.102	102	0.100	0.109	109	7	70-130	35	

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Analyst: CHE

Date Prepared: 07/02/2019

Date Analyzed: 07/02/2019

Lab Batch ID: 3094282

Sample: 7681269-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	247	99	250	247	99	0	90-110	20	

Analyst: CHE

Date Prepared: 07/02/2019

Date Analyzed: 07/02/2019

Lab Batch ID: 3094285

Sample: 7681270-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<0.858	250	252	101	250	252	101	0	90-110	20	

Analyst: ARM

Date Prepared: 07/04/2019

Date Analyzed: 07/04/2019

Lab Batch ID: 3094461

Sample: 7681387-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1180	118	1000	1100	110	7	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1190	119	1000	1150	115	3	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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094810

QC- Sample ID: 629496-023 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/08/2019

Date Prepared: 07/08/2019

Analyst: FOV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	<0.00199	0.0996	0.0823	83	0.100	0.0834	83	1	70-130	35	
Toluene	<0.00199	0.0996	0.0820	82	0.100	0.0796	80	3	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0912	92	0.100	0.0897	90	2	70-130	35	
m,p-Xylenes	<0.00398	0.199	0.181	91	0.201	0.180	90	1	70-130	35	
o-Xylene	<0.00199	0.0996	0.0872	88	0.100	0.0884	88	1	70-130	35	

Lab Batch ID: 3094951

QC- Sample ID: 629639-021 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/09/2019

Date Prepared: 07/08/2019

Analyst: AMB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	<0.00201	0.101	0.0791	78	0.0994	0.0789	79	0	70-130	35	
Toluene	<0.000458	0.101	0.0828	82	0.0994	0.0829	83	0	70-130	35	
Ethylbenzene	<0.00201	0.101	0.0812	80	0.0994	0.0864	87	6	70-130	35	
m,p-Xylenes	<0.00102	0.201	0.143	71	0.199	0.149	75	4	70-130	35	
o-Xylene	<0.000346	0.101	0.0802	79	0.0994	0.0826	83	3	70-130	35	

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094282

QC- Sample ID: 629602-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/02/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	103	249	349	99	249	350	99	0	90-110	20	

Lab Batch ID: 3094282

QC- Sample ID: 629705-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/02/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	374	250	590	86	250	593	88	1	90-110	20	X

Lab Batch ID: 3094285

QC- Sample ID: 629639-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/03/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	<0.864	252	253	100	252	254	101	0	90-110	20	

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

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

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094285

QC- Sample ID: 629639-015 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/03/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	117	250	368	100	250	367	100	0	90-110	20	

Lab Batch ID: 3094461

QC- Sample ID: 629498-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/04/2019

Date Prepared: 07/04/2019

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)	9.21	997	1180	117	998	1190	118	1	70-135	20	
Diesel Range Organics (DRO)	13.6	997	1080	107	998	1050	104	3	70-135	20	

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

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

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

629639

Page 1 of 3

Client Name:

EOG

Site Manager:

Clain Gonzales

Project Name:

Wyatt BHT State #1

Project Location:

(county, state) Eddy Co, NM

Project #:

212C-MD-01817

Invoice to:

EOG-James Kennedy &amp; Todd Wells

Sampler Signature:

Tony Leyordq

Receiving Laboratory:

Xanco

Sampler Signature:

Tony Leyordq

Comments:

 Non deeper sample if benzene exceeds 10mg/kg or BTEX  
 exceeds 50mg/kg or if TPH exceeds 100mg/kg

## SAMPLE IDENTIFICATION

LAB #  
(LAB USE ONLY)

AH1 (0-1')

AH1 (1-1.5')

AH1 (2-2.5')

AH1 (3-3.5')

AH1 (4-4.5')

AH1 (5-5.5')

AH2 (0-1')

AH2 (1-1.5')

AH2 (2-2.5')

AH2 (3-3.5')

YEAR: 2019

DATE

TIME

WATER

SOIL

HCL

HNO<sub>3</sub>

ICE

None

# CONTAINERS

FILTERED (Y/N)

BTX 8021B BTX 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

## ANALYSIS REQUEST

(Circle or Specify Method No.)

Inquired by:

Date: 7/1/19

Time: 12:50

Received by:

Date: 7/1/19

Time: 12:50

Inquired by:

Date: 7/1/19

Time: 12:50

Received by:

Date: 7/1/19

Time: 12:50

Inquired by:

Date: 7/1/19

Time: 12:50

Received by:

Date: 7/1/19

Time: 12:50

LAB USE ONLY

REMARKS:

STANDARD

Sample Temperature

4.0°C

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:



## 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

Page

2 of 3

Client Name: EOG		Site Manager: Clair Gonzalez	
Project Name: Wyatt BHT State #1			
Project Location: Eddy Co, NM		Project #: 212C-MD-01817	
Invoice to: EOG - James Kennedy & Todd Wells		Sampler Signature: Tony Lagorda	
Receiving Laboratory: Xanco		Comments: Run deeper sample if benzene exceeds 10mg/kg or BTEX exceeds 50mg/kg or if TPH exceeds 100mg/kg	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:		
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>					ICE	None
AH 2	(4-4.5')	6/28/19		X						X			
AH 3	(0-1')									X			
AH 3	(1-1.5')									X			
AH 3	(2-2.5')									X			
AH 3	(3-3.5')									X			
AH 3	(4-4.5')									X			
AH 4	(0-1')									X			
AH 4	(1-1.5')									X			
AH 4	(2-2.5')									X			
AH 5	(0-1')									X			

Inquired by: [Signature]	Date: 7/1/19	Time: 1850	Received by: [Signature]	Date: 7/1/19	Time: 12:50
Inquired by:	Date:	Time:	Received by:	Date:	Time:

Sample Temperature	4.0°C
LAB USE ONLY	
REMARKS:	
<input checked="" type="checkbox"/> STANDARD	
<input type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr	
<input type="checkbox"/> Rush Charges Authorized	
<input type="checkbox"/> Special Report Limits or TRRP Report	

ORIGINAL COPY



### 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

[illegible]

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

[illegible]

ORIGINAL COPY

029639

Page 2 of 2



## Inter-Office Shipment

Page 1 of 2

IOS Number **42630**

Date/Time: 07/01/19 15:22

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 775613045113

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629639-001	S	AH1 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-001	S	AH1 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-001	S	AH1 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-003	S	AH1 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-004	S	AH1 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-005	S	AH1 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-006	S	AH1 (5-5.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-007	S	AH2 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-007	S	AH2 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-007	S	AH2 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-009	S	AH2 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-010	S	AH2 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-011	S	AH2 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-012	S	AH3 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-012	S	AH3 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-012	S	AH3 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	



## Inter-Office Shipment

Page 2 of 2

IOS Number **42630**

Date/Time: 07/01/19 15:22

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 775613045113

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629639-014	S	AH3 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-015	S	AH3 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-016	S	AH3 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-017	S	AH4 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-017	S	AH4 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-017	S	AH4 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-019	S	AH4 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-020	S	AH5 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-020	S	AH5 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-020	S	AH5 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-022	S	AH5 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-023	S	AH5 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	

## Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 07/01/2019

Received By:

Brianna Teel

Date Received: 07/02/2019 12:14

Cooler Temperature: 0.6





## Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 42630

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 07/01/2019 03:22 PM

Received By: Brianna Teel

Date Received: 07/02/2019 12:14 PM

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

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

## NonConformance:

## Corrective Action Taken:

## Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by : \_\_\_\_\_ Date: \_\_\_\_\_

Checklist reviewed by:

Brianna Teel

Date: 07/02/2019

# Analytical Report 629639

for  
**Tetra Tech- Midland**

**Project Manager: Clair Gonzales**

**EOG - Wyatt BHT State #1**

**16-JUL-19**

Collected By: Client



**1089 N Canal Street  
Carlsbad, NM 88220**

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)





16-JUL-19

Project Manager: **Clair Gonzales**

**Tetra Tech- Midland**

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **629639**

**EOG - Wyatt BHT State #1**

Project Address: Eddy Co, NM

**Clair Gonzales:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 629639. 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. 629639 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,

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

---

**Jessica Kramer**

Project Assistant

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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



# Sample Cross Reference 629639

## Tetra Tech- Midland, Midland, TX

EOG - Wyatt BHT State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH1 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-001
AH1 (1-1.5')	S	06-28-19 00:00	1 - 1.5 ft	629639-002
AH1 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-003
AH1 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-004
AH1 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-005
AH1 (5-5.5')	S	06-28-19 00:00	5 - 5.5 ft	629639-006
AH2 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-007
AH2 (1-1.5')	S	06-28-19 00:00	1 - 1.5 ft	629639-008
AH2 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-009
AH2 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-010
AH2 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-011
AH3 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-012
AH3 (1-1.5')	S	06-28-19 00:00	0 - 1 ft	629639-013
AH3 (2-2.5')	S	06-28-19 00:00	2 - 2.5 ft	629639-014
AH3 (3-3.5')	S	06-28-19 00:00	3 - 3.5 ft	629639-015
AH3 (4-4.5')	S	06-28-19 00:00	4 - 4.5 ft	629639-016
AH4 (0-1')	S	06-28-19 00:00	0 - 1 ft	629639-017
AH4 (1-1.5')	S	06-28-19 00:00	1 - 1.5	629639-018
AH4 (2-2.5')	S	06-28-19 00:00	2 - 2.5	629639-019
AH5 (0-1')	S	06-28-19 00:00	0 - 1	629639-020
AH5 (1-1.5')	S	06-28-19 00:00	1 - 1.5	629639-021
AH5 (2-2.5')	S	06-28-19 00:00	2 - 2.5	629639-022
AH5 (3-3.5')	S	06-28-19 00:00	3 - 3.5	629639-023

**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: EOG - Wyatt BHT State #1**

Project ID:

Work Order Number(s): 629639

Report Date: 16-JUL-19

Date Received: 07/01/2019

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**Sample receipt non conformances and comments:**None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3094461 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 629639-018,629639-001.

Batch: LBA-3094810 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: 629639-020,629639-008,629639-007.

Batch: LBA-3094951 BTEX by EPA 8021B

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

## Certificate of Analysis Summary 629639



Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 16-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-001	629639-002	629639-003	629639-004	629639-005	629639-006
	<i>Field Id:</i>	AH1 (0-1')	AH1 (1-1.5')	AH1 (2-2.5')	AH1 (3-3.5')	AH1 (4-4.5')	AH1 (5-5.5')
	<i>Depth:</i>	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	5-5.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45	Jul-08-19 11:45				
	<i>Analyzed:</i>	Jul-09-19 04:04	Jul-09-19 04:26				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00200 0.00200	<0.00201 0.00201				
Toluene		<0.00200 0.00200	<0.00201 0.00201				
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201				
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402				
o-Xylene		<0.00200 0.00200	<0.00201 0.00201				
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201				
Total BTEX		<0.00200 0.00200	<0.00201 0.00201				
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:05	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-02-19 23:05	Jul-02-19 23:12	Jul-02-19 23:20	Jul-02-19 23:27	Jul-03-19 00:10	Jul-03-19 00:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		396 5.04	248 4.99	52.5 5.01	10.8 4.95	<5.03 5.03	10.9 5.00
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00	Jul-04-19 10:00				
	<i>Analyzed:</i>	Jul-05-19 01:35	Jul-05-19 01:59				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<14.9 14.9				
Diesel Range Organics (DRO)		29.1 15.0	<14.9 14.9				
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<14.9 14.9				
Total TPH		29.1 15.0	<14.9 14.9				

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Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 16-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-007	629639-008	629639-009	629639-010	629639-011	629639-012
	<i>Field Id:</i>	AH2 (0-1')	AH2 (1-1.5')	AH2 (2-2.5')	AH2 (3-3.5')	AH2 (4-4.5')	AH3 (0-1')
	<i>Depth:</i>	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	0-1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45	Jul-08-19 11:45				Jul-08-19 11:45
	<i>Analyzed:</i>	Jul-09-19 01:07	Jul-09-19 01:29				Jul-09-19 04:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				mg/kg RL
Benzene		0.136 0.101	0.101 0.100				<0.00201 0.00201
Toluene		6.36 0.101	4.64 0.100				<0.00201 0.00201
Ethylbenzene		6.63 0.101	5.20 0.100				<0.00201 0.00201
m,p-Xylenes		31.7 0.201	24.3 0.200				<0.00402 0.00402
o-Xylene		11.5 0.101	8.69 0.100				<0.00201 0.00201
Total Xylenes		43.2 0.101	33.0 0.100				<0.00201 0.00201
Total BTEX		56.3 0.101	42.9 0.100				<0.00201 0.00201
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-03-19 00:39	Jul-03-19 00:47	Jul-03-19 00:54	Jul-03-19 01:16	Jul-03-19 01:23	Jul-03-19 01:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3310 24.8	4090 25.2	5150 25.0	940 5.01	1330 4.98	3740 25.3
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00	Jul-04-19 10:00	Jul-11-19 10:00	Jul-11-19 10:00	Jul-11-19 10:00	Jul-04-19 10:00
	<i>Analyzed:</i>	Jul-05-19 02:23	Jul-05-19 03:11	Jul-15-19 04:54	Jul-15-19 05:18	Jul-15-19 18:35	Jul-05-19 03:35
	<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)		1700 15.0	1460 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		4970 15.0	4140 15.0	171 15.0	64.3 15.0	405 15.0	241 15.0
Motor Oil Range Hydrocarbons (MRO)		246 15.0	191 15.0	<15.0 15.0	<15.0 15.0	37.1 15.0	29.8 15.0
Total TPH		6920 15.0	5790 15.0	171 15.0	64.3 15.0	442 15.0	271 15.0

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Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 16-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-013	629639-014	629639-015	629639-016	629639-017	629639-018
	<i>Field Id:</i>	AH3 (1-1.5')	AH3 (2-2.5')	AH3 (3-3.5')	AH3 (4-4.5')	AH4 (0-1')	AH4 (1-1.5')
	<i>Depth:</i>	0-1 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	0-1 ft	1-1.5
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-08-19 11:45				Jul-08-19 11:45	Jul-08-19 11:45
	<i>Analyzed:</i>	Jul-09-19 05:10				Jul-09-19 05:32	Jul-09-19 05:54
	<i>Units/RL:</i>	mg/kg RL				mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399				<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200				<0.00201 0.00201	<0.00200 0.00200
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20
	<i>Analyzed:</i>	Jul-03-19 01:37	Jul-03-19 01:45	Jul-03-19 01:52	Jul-03-19 02:14	Jul-03-19 02:21	Jul-03-19 02:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		40.6 4.99	141 5.01	117 5.00	<4.95 4.95	388 4.98	170 5.04
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-04-19 10:00				Jul-04-19 10:00	Jul-04-19 10:00
	<i>Analyzed:</i>	Jul-05-19 03:58				Jul-05-19 04:22	Jul-05-19 04:46
	<i>Units/RL:</i>	mg/kg RL				mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0				<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		52.9 15.0				57.1 14.9	30.7 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0				<14.9 14.9	<15.0 15.0
Total TPH		52.9 15.0				57.1 14.9	30.7 15.0

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Jessica Kramer  
Project Assistant





# Certificate of Analysis Summary 629639

Tetra Tech- Midland, Midland, TX

Project Name: EOG - Wyatt BHT State #1

Project Id:

Contact: Clair Gonzales

Project Location: Eddy Co, NM

Date Received in Lab: Mon Jul-01-19 12:50 pm

Report Date: 16-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	629639-019	629639-020	629639-021	629639-022	629639-023	
	<i>Field Id:</i>	AH4 (2-2.5')	AH5 (0-1')	AH5 (1-1.5')	AH5 (2-2.5')	AH5 (3-3.5')	
	<i>Depth:</i>	2-2.5	0-1	1-1.5	2-2.5	3-3.5	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	Jun-28-19 00:00	
<b>BTEX by EPA 8021B SUB: T104704400-18-16</b>	<i>Extracted:</i>		Jul-08-19 11:45	Jul-08-19 12:20			
	<i>Analyzed:</i>		Jul-09-19 06:16	Jul-09-19 11:39			
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			
Benzene			<0.00199 0.00199	<0.00200 0.00200			
Toluene			<0.00199 0.00199	<0.00200 0.00200			
Ethylbenzene			0.00281 0.00199	<0.00200 0.00200			
m,p-Xylenes			0.0233 0.00398	<0.00399 0.00399			
o-Xylene			0.0146 0.00199	<0.00200 0.00200			
Total Xylenes			0.0379 0.00199	<0.00200 0.00200			
Total BTEX			0.0407 0.00199	<0.00200 0.00200			
<b>Inorganic Anions by EPA 300/300.1 SUB: T104704400-18-16</b>	<i>Extracted:</i>	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	Jul-02-19 16:20	
	<i>Analyzed:</i>	Jul-03-19 02:50	Jul-03-19 02:57	Jul-03-19 03:04	Jul-03-19 03:12	Jul-03-19 03:19	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		491 4.97	255 4.95	94.7 5.01	111 5.05	133 5.00	
<b>TPH By SW8015 Mod SUB: T104704400-18-16</b>	<i>Extracted:</i>		Jul-04-19 10:00	Jul-04-19 10:00	Jul-11-19 10:00		
	<i>Analyzed:</i>		Jul-05-19 05:10	Jul-05-19 05:34	Jul-15-19 19:00		
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)			76.4 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)			743 15.0	154 15.0	59.9 15.0		
Motor Oil Range Hydrocarbons (MRO)			48.6 15.0	<15.0 15.0	<15.0 15.0		
Total TPH			868 15.0	154 15.0	59.9 15.0		

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*Jessica Kramer*

Jessica Kramer  
Project Assistant



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

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

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

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

+ NELAC certification not offered for this compound.

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



## Form 2 - Surrogate Recoveries

Project Name: EOG - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094461

Sample: 629639-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 01:35

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	100	94	70-135	
o-Terphenyl	32.9	50.0	66	70-135	**

Lab Batch #: 3094461

Sample: 629639-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 01:59

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.6	116	70-135	
o-Terphenyl	40.7	49.8	82	70-135	

Lab Batch #: 3094461

Sample: 629639-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 02:23

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.9	112	70-135	
o-Terphenyl	59.3	50.0	119	70-135	

Lab Batch #: 3094461

Sample: 629639-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:11

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.8	108	70-135	
o-Terphenyl	52.0	49.9	104	70-135	

Lab Batch #: 3094461

Sample: 629639-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:35

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	38.8	49.9	78	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094461

Sample: 629639-013 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 03:58

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	37.6	50.0	75	70-135	

Lab Batch #: 3094461

Sample: 629639-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 04:22

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.6	107	70-135	
o-Terphenyl	38.6	49.8	78	70-135	

Lab Batch #: 3094461

Sample: 629639-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 04:46

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	33.6	50.0	67	70-135	**

Lab Batch #: 3094461

Sample: 629639-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 05:10

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	47.4	49.9	95	70-135	

Lab Batch #: 3094461

Sample: 629639-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/05/19 05:34

## 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	40.0	49.9	80	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094810

Sample: 629639-007 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 01:07

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	70-130	
4-Bromofluorobenzene	0.0573	0.0300	191	70-130	**

Lab Batch #: 3094810

Sample: 629639-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 01:29

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	70-130	
4-Bromofluorobenzene	0.0519	0.0300	173	70-130	**

Lab Batch #: 3094810

Sample: 629639-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:04

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3094810

Sample: 629639-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:26

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3094810

Sample: 629639-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 04:48

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094810

Sample: 629639-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:10

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0331	0.0300	110	70-130	

Lab Batch #: 3094810

Sample: 629639-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:32

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0326	0.0300	109	70-130	

Lab Batch #: 3094810

Sample: 629639-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 05:54

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0327	0.0300	109	70-130	

Lab Batch #: 3094810

Sample: 629639-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 06:16

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0437	0.0300	146	70-130	**

Lab Batch #: 3094951

Sample: 629639-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 11:39

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3095302

Sample: 629639-009 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 04:54

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	57.5	49.9	115	70-135	

Lab Batch #: 3095302

Sample: 629639-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 05:18

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	62.9	50.0	126	70-135	

Lab Batch #: 3095443

Sample: 629639-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 18:35

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.5	99.8	100	70-135	
o-Terphenyl	45.8	49.9	92	70-135	

Lab Batch #: 3095443

Sample: 629639-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 19:00

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.9	102	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

Lab Batch #: 3094461

Sample: 7681387-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 20:45

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	41.6	50.0	83	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094810

Sample: 7681533-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 10:28

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3094951

Sample: 7681537-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 11:15

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

Lab Batch #: 3095302

Sample: 7681992-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/14/19 20:51

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3095443

Sample: 7682075-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/15/19 09:13

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	48.3	50.0	97	70-135	

Lab Batch #: 3094461

Sample: 7681387-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 21:09

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	55.2	50.0	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 - Wyatt BHT State #1

Work Orders : 629639,

Project ID:

Lab Batch #: 3094810

Sample: 7681533-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 08:34

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

Lab Batch #: 3094951

Sample: 7681537-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 09:13

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3095302

Sample: 7681992-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/14/19 21:16

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	63.0	50.0	126	70-135	

Lab Batch #: 3095443

Sample: 7682075-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/15/19 09:37

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.9	100	84	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3094461

Sample: 7681387-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/04/19 21:32

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	48.5	50.0	97	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094810

Sample: 7681533-1-BSO / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/19 08:56

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0308	0.0300	103	70-130	

Lab Batch #: 3094951

Sample: 7681537-1-BSO / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/09/19 09:36

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3095302

Sample: 7681992-1-BSO / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/14/19 21:41

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	100	93	70-135	
o-Terphenyl	53.9	50.0	108	70-135	

Lab Batch #: 3095443

Sample: 7682075-1-BSO / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/15/19 10:01

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	100	91	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 3094461

Sample: 629498-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/04/19 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	103	99.7	103	70-135	
o-Terphenyl	39.4	49.9	79	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094810

Sample: 629496-023 S / MS

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/19 09:18

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0356	0.0300	119	70-130	

Lab Batch #: 3094951

Sample: 629639-021 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 09:59

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3095302

Sample: 629984-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/14/19 22:30

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	99.7	86	70-135	
o-Terphenyl	56.5	49.9	113	70-135	

Lab Batch #: 3095443

Sample: 630227-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 10:50

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.1	100	85	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

Lab Batch #: 3094461

Sample: 629498-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/04/19 22:44

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.8	102	70-135	
o-Terphenyl	38.1	49.9	76	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 - Wyatt BHT State #1

Work Orders : 629639,

Lab Batch #: 3094810

Sample: 629496-023 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/19 09:40

**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	0.0361	0.0300	120	70-130	

Lab Batch #: 3094951

Sample: 629639-021 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/09/19 10:22

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	70-130	

Lab Batch #: 3095302

Sample: 629984-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/14/19 22:54

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.6	90	70-135	
o-Terphenyl	56.8	49.8	114	70-135	

Lab Batch #: 3095443

Sample: 630227-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/15/19 11:14

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	100	88	70-135	
o-Terphenyl	49.3	50.0	99	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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Analyst: FOV

Date Prepared: 07/08/2019

Date Analyzed: 07/08/2019

Lab Batch ID: 3094810

Sample: 7681533-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.0998	0.0919	92	0.0994	0.0879	88	4	70-130	35	
Toluene	<0.00200	0.0998	0.0899	90	0.0994	0.0873	88	3	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0994	0.0952	96	6	70-130	35	
m,p-Xylenes	<0.00399	0.200	0.201	101	0.199	0.191	96	5	70-130	35	
o-Xylene	<0.00200	0.0998	0.0960	96	0.0994	0.0914	92	5	70-130	35	

Analyst: AMB

Date Prepared: 07/08/2019

Date Analyzed: 07/09/2019

Lab Batch ID: 3094951

Sample: 7681537-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00199	0.0996	0.0778	78	0.100	0.0883	88	13	70-130	35	
Toluene	<0.000454	0.0996	0.0955	96	0.100	0.104	104	9	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.109	109	0.100	0.116	116	6	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.215	108	0.201	0.229	114	6	70-130	35	
o-Xylene	0.000750	0.0996	0.102	102	0.100	0.109	109	7	70-130	35	

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Analyst: CHE

Date Prepared: 07/02/2019

Date Analyzed: 07/02/2019

Lab Batch ID: 3094282

Sample: 7681269-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	247	99	250	247	99	0	90-110	20	

Analyst: CHE

Date Prepared: 07/02/2019

Date Analyzed: 07/02/2019

Lab Batch ID: 3094285

Sample: 7681270-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<0.858	250	252	101	250	252	101	0	90-110	20	

Analyst: ARM

Date Prepared: 07/04/2019

Date Analyzed: 07/04/2019

Lab Batch ID: 3094461

Sample: 7681387-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1180	118	1000	1100	110	7	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1190	119	1000	1150	115	3	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



## BS / BSD Recoveries



Project Name: EOG - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Analyst: ARM

Date Prepared: 07/14/2019

Date Analyzed: 07/14/2019

Lab Batch ID: 3095302

Sample: 7681992-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1130	113	1000	1090	109	4	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1170	117	1000	1160	116	1	70-135	20	

Analyst: ARM

Date Prepared: 07/15/2019

Date Analyzed: 07/15/2019

Lab Batch ID: 3095443

Sample: 7682075-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	963	96	1000	1020	102	6	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	979	98	1000	1000	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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094810

QC- Sample ID: 629496-023 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/08/2019

Date Prepared: 07/08/2019

Analyst: FOV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	<0.00199	0.0996	0.0823	83	0.100	0.0834	83	1	70-130	35	
Toluene	<0.00199	0.0996	0.0820	82	0.100	0.0796	80	3	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.0912	92	0.100	0.0897	90	2	70-130	35	
m,p-Xylenes	<0.00398	0.199	0.181	91	0.201	0.180	90	1	70-130	35	
o-Xylene	<0.00199	0.0996	0.0872	88	0.100	0.0884	88	1	70-130	35	

Lab Batch ID: 3094951

QC- Sample ID: 629639-021 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/09/2019

Date Prepared: 07/08/2019

Analyst: AMB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	<0.00201	0.101	0.0791	78	0.0994	0.0789	79	0	70-130	35	
Toluene	<0.000458	0.101	0.0828	82	0.0994	0.0829	83	0	70-130	35	
Ethylbenzene	<0.00201	0.101	0.0812	80	0.0994	0.0864	87	6	70-130	35	
m,p-Xylenes	<0.00102	0.201	0.143	71	0.199	0.149	75	4	70-130	35	
o-Xylene	<0.000346	0.101	0.0802	79	0.0994	0.0826	83	3	70-130	35	

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094282

QC- Sample ID: 629602-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/02/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	103	249	349	99	249	350	99	0	90-110	20	

Lab Batch ID: 3094282

QC- Sample ID: 629705-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/02/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	374	250	590	86	250	593	88	1	90-110	20	X

Lab Batch ID: 3094285

QC- Sample ID: 629639-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/03/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	<0.864	252	253	100	252	254	101	0	90-110	20	

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

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

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 - Wyatt BHT State #1

Work Order #: 629639

Project ID:

Lab Batch ID: 3094285

QC- Sample ID: 629639-015 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/03/2019

Date Prepared: 07/02/2019

Analyst: CHE

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	117	250	368	100	250	367	100	0	90-110	20	

Lab Batch ID: 3094461

QC- Sample ID: 629498-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/04/2019

Date Prepared: 07/04/2019

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)	9.21	997	1180	117	998	1190	118	1	70-135	20	
Diesel Range Organics (DRO)	13.6	997	1080	107	998	1050	104	3	70-135	20	

Lab Batch ID: 3095302

QC- Sample ID: 629984-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/14/2019

Date Prepared: 07/14/2019

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)	8.34	997	978	97	996	999	99	2	70-135	20	
Diesel Range Organics (DRO)	<8.10	997	1070	107	996	1070	107	0	70-135	20	

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

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

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 - Wyatt BHT State #1

Work Order # : 629639

Project ID:

Lab Batch ID: 3095443

QC- Sample ID: 630227-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 07/15/2019

Date Prepared: 07/15/2019

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)	9.84	1000	977	97	1000	1000	99	2	70-135	20	
Diesel Range Organics (DRO)	13.5	1000	1040	103	1000	1100	109	6	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.

### Analysis Request of Chain of Custody Record



**Tetra Tech, Inc.**

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

629639

Page 1 of 5

Client Name: EOG		Site Manager: Clair Gonzales					
Project Name: Wyatt BHT State #1							
Project Location: Eddy Co, NM		Project #: 212C-MD-01817					
Invoice to: EOG - James Kennedy & Todd Wells							
Receiving Laboratory: Xanco		Sampler Signature: Tony Legendre					
Comments: Run deeper samples if benzs exceeds 10mg/kg or BTEX exceeds 50mg/kg or if TPH exceeds 100mg/kg							
LAB # LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE TIME	MATRIX WATER SOIL HCL HNO3 ICE None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B 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
AH1	(CO-1')	6/28/19	X	X	1	N	X
AH1	(1-1.5')						X
AH1	(2-2.5')						X
AH1	(3-3.5')						X
AH1	(4-4.5')						X
AH1	(5-5.5')						X
AH2	(0-1')						X
AH2	(1-1.5')						X
AH2	(2-2.5')						X
AH2	(3-3.5')						X
LAB USE ONLY							
Inquired by: [Signature]	Date: 7/1/19	Time: 1250	Received by: [Signature]	Date: 7/1/19	Time: 1250	LAB USE ONLY	REMARKS: <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr <input type="checkbox"/> Rush Charges Authorized <input type="checkbox"/> Special Report Limits or TRRP Report
Inquired by:	Date:	Time:	Received by:	Date:	Time:	Sample Temperature: 4.0°C	

ORIGINAL COPY



## 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

Page

2 of 3

Client Name: EOG		Site Manager: Clair Gonzalez	
Project Name: Wyatt BHT State #1			
Project Location: Eddy Co, NM		Project #: 212C-MD-01817	
Invoice to: EOG - James Kennedy & Todd Wells		Sampler Signature: Tony Lagorda	
Receiving Laboratory: Xanco		Comments: Run deeper sample if benzene exceeds 10mg/kg or BTEX exceeds 50mg/kg or if TPH exceeds 100mg/kg	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:		
		DATE	TIME	WATER	SOIL	HCL	HNO <sub>3</sub>					ICE	None
AH 2	(4-4.5')	6/28/19		X				X					
AH 3	(0-1')												
AH 3	(1-1.5')												
AH 3	(2-2.5')												
AH 3	(3-3.5')												
AH 3	(4-4.5')												
AH 4	(0-1')												
AH 4	(1-1.5')												
AH 4	(2-2.5')												
AH 5	(0-1')												

Inquired by: [Signature]	Date: 7/1/19	Time: 1850	Received by: [Signature]	Date: 7/1/19	Time: 12:50
Inquired by:	Date:	Time:	Received by:	Date:	Time:

Sample Temperature	4.0°C
LAB USE ONLY	
REMARKS:	
<input checked="" type="checkbox"/> STANDARD	
<input type="checkbox"/> RUSH: Same Day 24 hr 48 hr 72 hr	
<input type="checkbox"/> Rush Charges Authorized	
<input type="checkbox"/> Special Report Limits or TRRP Report	

ORIGINAL COPY



## 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

Client Name: EOG

Site Manager:

Clain Gonzales

Project Name:

Wyatt BHT State #1

Project Location:

Eddy Co, NM

Project #:

212C-MD-01817

Invoice to:

EOG-James Kennedy &amp; Todd Wells

Receiving Laboratory:

Xanco

Sampler Signature:

Tony Legendre

Comments:

 Run deeper samples if benzene exceeds 10mg/kg or BTEX  
 exceeds 50mg/kg or if TPH exceeds 100mg/kg

## SAMPLE IDENTIFICATION

LAB #  
(LAB USE ONLY)

SAMPLING

MATRIX PRESERVATIVE METHOD

# CONTAINERS

FILTERED (Y/N)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

 ANALYSIS REQUEST  
 (Circle or Specify Method No.)

Inquired by:

Date: Time:

Inquired by:

Date: Time:

Inquired by:

Date: Time:

Received by:

Date: Time:

Received by:

Date: Time:

Received by:

Date: Time:

 Inquired by: *Victor S. Lopez*  
 Date: 7/14/19 Time: 12:50

 Received by: *[Signature]*  
 Date: 7/11/19 Time: 12:50

 Received by: *[Signature]*  
 Date: 7/11/19 Time: 12:50

LAB USE ONLY

REMARKS:

STANDARD

Sample Temperature

4.0°C

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED SEDEX UPS Tracking #:

6029639

Page 3 of 3



## Inter-Office Shipment

Page 1 of 2

IOS Number **42630**

Date/Time: 07/01/19 15:22

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 775613045113

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629639-001	S	AH1 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-001	S	AH1 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-001	S	AH1 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-002	S	AH1 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-003	S	AH1 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-004	S	AH1 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-005	S	AH1 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-006	S	AH1 (5-5.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-007	S	AH2 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-007	S	AH2 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-007	S	AH2 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-008	S	AH2 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-009	S	AH2 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-010	S	AH2 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-011	S	AH2 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-012	S	AH3 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-012	S	AH3 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-012	S	AH3 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-013	S	AH3 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	



## Inter-Office Shipment

Page 2 of 2

IOS Number **42630**

Date/Time: 07/01/19 15:22

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 775613045113

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629639-014	S	AH3 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-015	S	AH3 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-016	S	AH3 (4-4.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-017	S	AH4 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-017	S	AH4 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-017	S	AH4 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-018	S	AH4 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-019	S	AH4 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-020	S	AH5 (0-1')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-020	S	AH5 (0-1')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-020	S	AH5 (0-1')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	SW8021B	BTEX by EPA 8021B	07/08/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	SW8015MOD_NM	TPH By SW8015 Mod	07/08/19	07/12/19	JKR	PHCC10C28 PHCC28C35	
629639-021	S	AH5 (1-1.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-022	S	AH5 (2-2.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	
629639-023	S	AH5 (3-3.5')	06/28/19 00:00	E300	Inorganic Anions by EPA 300/300.1	07/08/19	07/26/19	JKR	CL F NO2N NO3N SO4	

## Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 07/01/2019

Received By:

Brianna Teel

Date Received: 07/02/2019 12:14

Cooler Temperature: 0.6





## Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 42630

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 07/01/2019 03:22 PM

Received By: Brianna Teel

Date Received: 07/02/2019 12:14 PM

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

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

## NonConformance:

## Corrective Action Taken:

## Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by : \_\_\_\_\_ Date: \_\_\_\_\_

Checklist reviewed by:

Brianna Teel

Date: 07/02/2019

## Phone:(505) 476-3470 Fax:(505) 476-3462

## CONDITIONS

Action 10583

OCD Reviewer	Condition
ceads	None