

# SITE INFORMATION

## Report Type: Closure

### General Site Information:

<b>Site:</b>	Harrier Federal Com 1					
<b>Company:</b>	VPR Operating LLC.					
<b>Section, Township and Range</b>	Unit G	Sec 35	T25S	R32E		
<b>Lease Number:</b>	API No. 39214					
<b>County:</b>	Lea County					
<b>GPS:</b>	32.08846° N			103.64201° W		
<b>Surface Owner:</b>	Federal					
<b>Mineral Owner:</b>						
<b>Directions:</b>	In Jal, from the intersection of Hwy 18 and Hwy 128, travel west on Hwy 128 for 30.0 miles. Turn left (south) on CR 1 and travel 8.4 miles, turn left (east) and travel 2.0 miles, turn right (south) and travel 0.3 miles, turn right (west) and travel 0.3 miles to the site.					

APPROVED

### Release Data:

<b>Date Discovered:</b>	2/11/2013
<b>Type Release:</b>	Produced Fluid
<b>Source of Contamination:</b>	Flow Back Operations
<b>Fluid Released:</b>	25 bbls
<b>Fluids Recovered:</b>	0 bbls

### Official Communication:

<b>Name:</b>	Robert Pullen		Ike Tavaréz
<b>Company:</b>	VPR Operating, LLC		Tetra Tech
<b>Address:</b>	1406 Campcroft Rd.		1910 N. Big Spring
	Suite 106		
<b>City:</b>	Austin Texas 78746		Midland, Texas
<b>Phone number:</b>	(512) 327-8776		(432) 682-4559
<b>Fax:</b>			
<b>Email:</b>	<a href="mailto:bob@vproperating.com">bob@vproperating.com</a>		<a href="mailto:ike.tavaréz@tetrattech.com">ike.tavaréz@tetrattech.com</a>

### Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0

WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0

Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0

<b>Total Ranking Score:</b>	0
-----------------------------	---

#### Acceptable Soil RRAL (mg/kg)

Benzene	Total BTEX	TPH
10	50	5,000



November 7, 2013

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

**Re: Closure Report for the VPR Operating LLC., Harrier Federal Com 1, Unit G, Section 35, Township 25 South, Range 32 East, Lea County, New Mexico.**

Mr. Leking:

Tetra Tech, Inc. (Tetra Tech) was contacted by VPR Operating LLC. (VPR) to assess a spill from the Harrier Federal Com 1, Unit G, Section 35, Township 25 South, Range 32 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.08846°, W 103.64201°. The site location is shown on Figures 1 and 2.

### **Background**

According to the State of New Mexico C-141 Initial Report, the leak was discovered on February 11, 2013, and released approximately twenty five (25) barrels of produced fluid from flow back operations, with zero (0) barrels of standing fluids recovered. The spill initiated on the facility pad measuring approximately 40' x 155', then migrated southwest into the pasture measuring approximately 2' x 200'. The spill then migrated west into the pasture measuring approximately 3' x 840', then southwest measuring approximately 10' x 845'. The initial C-141 form is enclosed in Appendix C.

### **Groundwater**

No water wells were listed within Section 35. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 200' below surface. The average depth to groundwater map is shown in Appendix A.

### **Regulatory**

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of

**Tetra Tech**

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

Fax 432.682.3946

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

Leaks, Spills and Releases, dated August 13, 1993. 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 depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

## **Spill Assessment and Remediation**

### **Spill Assessment**

On February 28, 2013, Tetra Tech personnel inspected and sampled the spill area. Twenty-five (25) auger holes (AH-1 through AH-25) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the auger holes exceeded the RRAL for TPH, with the exception of AH-7 and AH-24. The selected samples for BTEX did not exceed either the benzene or total BTEX on majority of the samples. The impact soils were vertically defined in the areas AH-2, AH-17, AH-20, AH-22, AH-23 and AH-25 at depths of 1.5', 2.5', 1.5', 4.5', 3.5' and 3.5', respectively. The remaining areas were not vertically defined for either TPH or BTEX.

In addition, the chloride concentrations did not show a significant impact to the soils. The areas of AH-1 showed a chloride of 2,010 mg/kg at 0-1' and 909 mg/kg at 1-1.5' in the area of AH-12. These areas were not vertically defined.

### **Site Remediation**

According to the submitted work plan, VPR Operating proposed to excavate the impacted soil to remove the soil above the RRAL. Once excavated, Tetra Tech proposed to collect confirmation samples from the excavation bottoms for TPH and BTEX. In addition, the areas of AH-1 and AH-12 would be excavated to the appropriate depths to remove the elevated chlorides.

On September 30, 2013, Tetra Tech supervised the excavation of the impacted materials as highlighted (green) in Table 1 and shown on Figure 4. Approximately 3,360 cubic yards of contaminated materials were hauled to the proper disposal.

Prior to excavating, the areas of auger holes (AH-1 through AH-4) on the pad were trenched using a backhoe to vertically define the extents of the hydrocarbon impact. Based on the lab data, the areas of AH-2 and AH-3 were



then excavated to 3.0' below surface and 4.0' in the areas of AH-1 and AH-4. In addition, sidewall confirmation samples were taken of these areas and all showed concentrations below the RRAL's.

Once excavated to the appropriate depths, auger holes (AH-5 through AH-25) the excavation bottoms were sampled to confirm the removal of the soils exceeded the RRAL's. The sampling results are summarized in Table 1. Referring to Table 1, all of the bottom hole samples showed TPH or BTEX concentrations below the RRAL.

According the chloride analysis, the areas of AH-1 and AH-12 did show chloride concentrations of 2,010 mg/kg at 0-1' and 909 mg/kg at 1-1.5', respectively. The area of AH-1 was excavated to a depth of approximately 4.0' below surface and showed a chloride concentration of 128 mg/kg. AH-12 was excavated to a depth of 2.0' below surface, with a bottom hole sample of 80.0 mg/kg.

Once excavated to the appropriate depths, the areas of AH-1 through AH-9 were backfilled with clean material and brought to grade. As per the BLM, the runoff areas AH-10 through AH-25 did not require backfilling and were left opened due to these areas to have the ability to fill in naturally. However, some of the sidewalls in the deeper areas were pushed in for protection of livestock, if any.

### **Conclusions**

All of the impacted soil was removed and hauled to proper disposal. The confirmation samples collected from the excavations showed concentrations below the RRAL for TPH and BTEX. Based on the remediation activities, VPR requests closure for this site. The C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

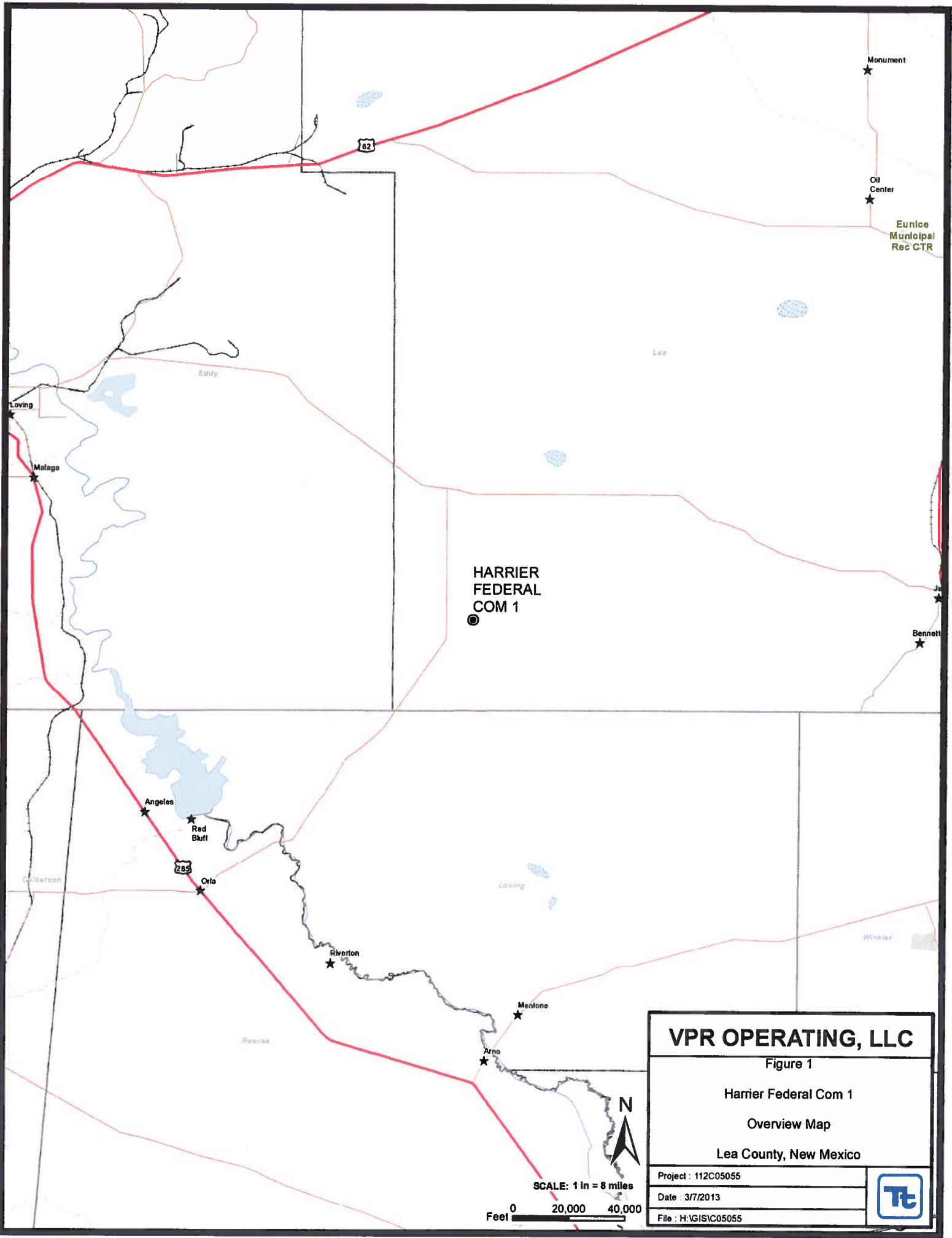
A handwritten signature in blue ink, appearing to read 'Ike Tavarez', written over the printed name.

Ike Tavarez, P.G.  
Project Manager

cc: VPR Operating - Bob Pullen  
BLM -- Jennifer Van Curen

## Figures





HARRIER  
FEDERAL  
COM 1

**VPR OPERATING, LLC**

Figure 1

Harrier Federal Com 1

Overview Map

Lea County, New Mexico

Project : 112C05055

Date : 3/7/2013

File : H:\GIS\IC05055



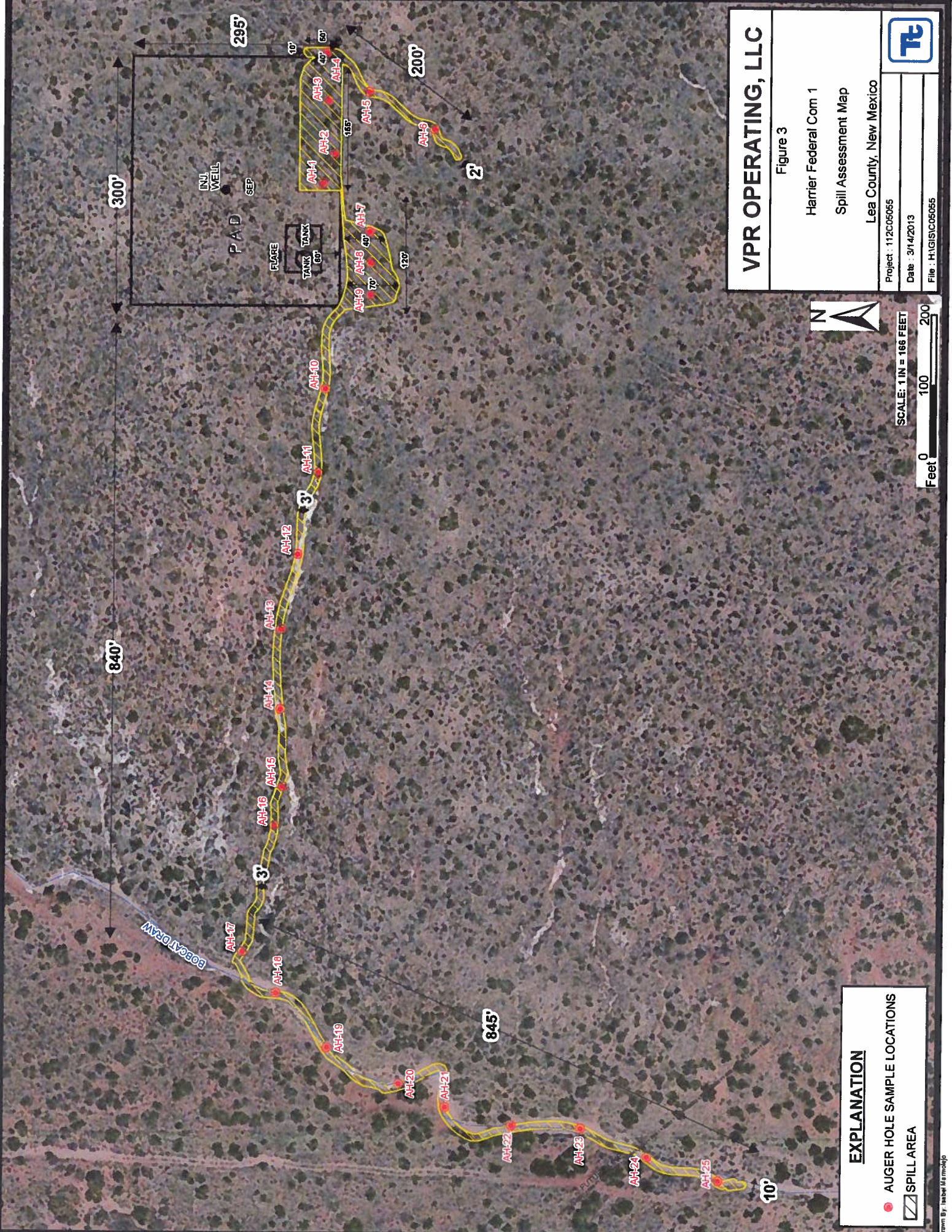
SCALE: 1 in = 8 miles

0 20,000 40,000  
Feet









# VPR OPERATING, LLC

Figure 3

Harrier Federal Com 1

Spill Assessment Map

Lea County, New Mexico

Project : 112C05055

Date : 3/14/2013

File : H:\GIS\112C05055

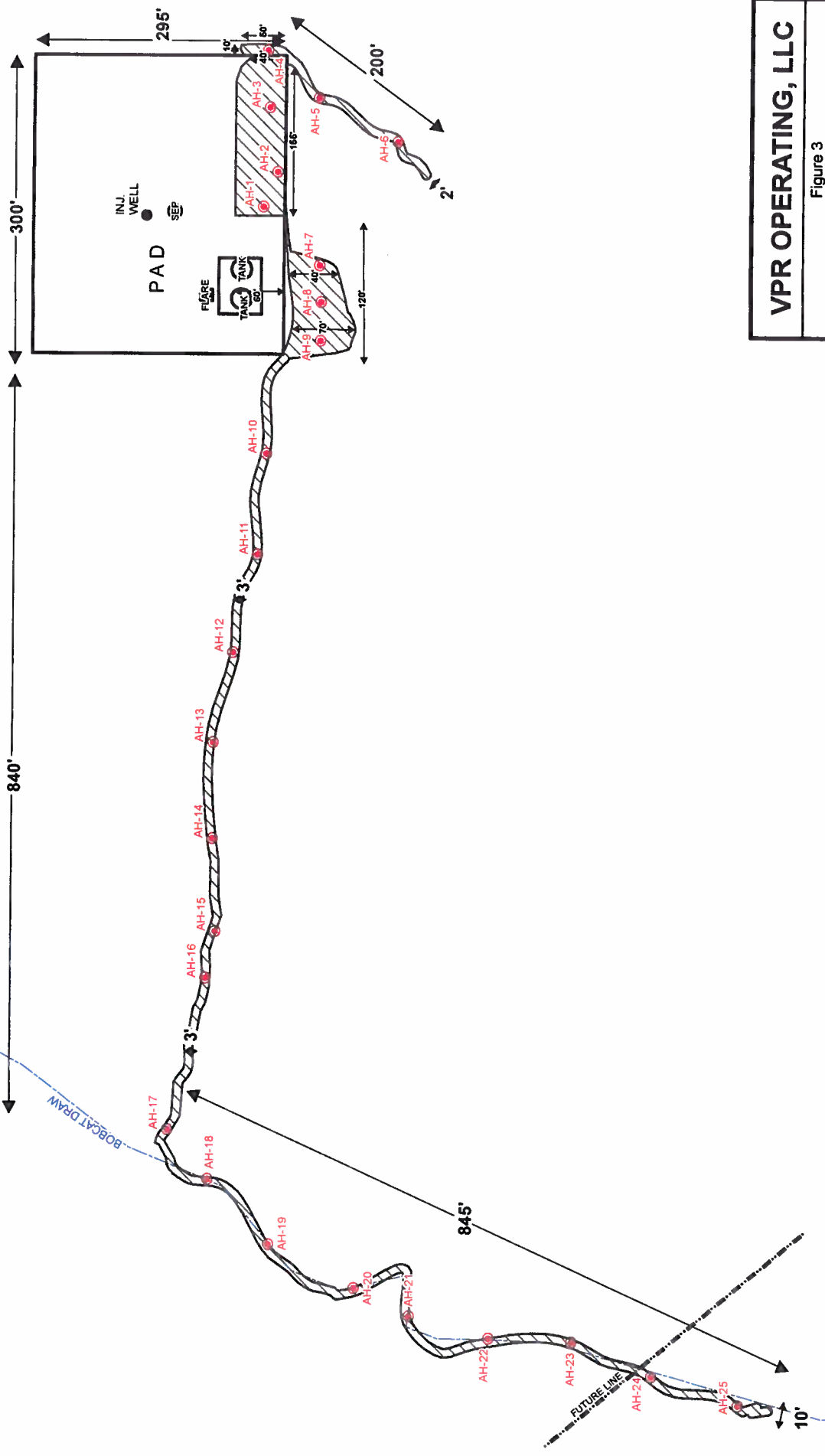
## EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- SPILL AREA

SCALE: 1 IN = 166 FEET

0 100 200 Feet





# EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- ▨ SPILL AREA

## VPR OPERATING, LLC

Figure 3

Harrier Federal Com 1

Spill Assessment Map

Lea County, New Mexico

Project : 112C05055

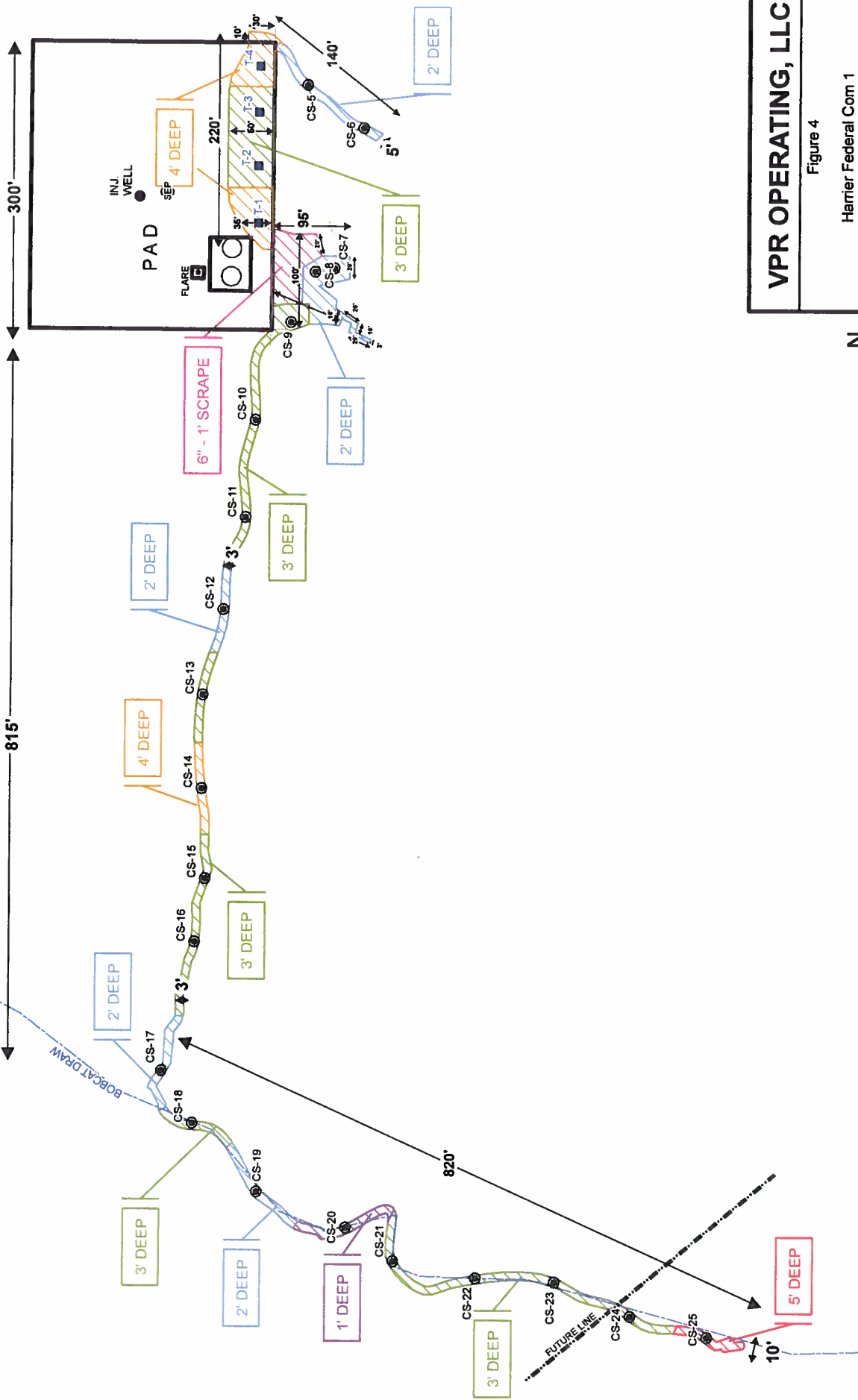
Date : 3/14/2013

File : H:\GIS\CO5055



SCALE: 1 IN = 166 FEET

0 100 200 Feet



**EXPLANATION**

- CONFIRMATION SAMPLE LOCATIONS
- TRENCH LOCATIONS
- ▨ EXCAVATED AREAS

**VPR OPERATING, LLC**

Figure 4

Harrier Federal Com 1

Excavation Areas & Depths Map

Lea County, New Mexico

Project: 112C05055

Date: 10/24/2013

File: H:\GIS\112C05055

N

SCALE: 1 IN = 169 FEET

0 100 200

Feet



## Tables

Table 1  
VPR

Harrier Fed Com #1  
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Bottom Depth (in)	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	Total						
AH-1	2/28/2013	0-0.5	-	X		11,800	6,340	18,140	20.4	168	32.1	412	633	2,010
T-1	10/2/2013	1	-		X	3,790	8,230	12,020	3.97	46.1	21.1	162	233	688
	"	2	"		X	3,750	7,270	11,020	3.35	29.1	10.2	106	149	384
	"	3	"		X	2,460	5,780	8,240	1.32	16.4	10.0	60.8	88.5	1,170
	"	4	4	X		<10.0	16.7	16.7	<0.050	<0.050	<0.050	<0.150	<0.300	128
CS-1 North Wall	10/11/2013	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
CS-1 South Wall	"	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
AH-2	2/28/2013	0-1	-	X		8,140	1,460	9,600	-	-	-	-	-	260
	"	1-1.5	-	X		2,840	2,100	4,940	-	-	-	-	-	450
	"	2-2.5	-	X		-	-	-	-	-	-	-	-	310
	"	3-3.5	-	X		-	-	-	-	-	-	-	-	<20.0
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	55.1
T-2	10/2/2013	1	-		X	2,330	5,610	7,940	2.12	19.1	10.8	70.3	102	-
	"	2	"		X	1,920	5,020	6,940	3.0	32.9	15.8	126	178	-
CS-2 North Wall	10/11/2013	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
CS-2 South Wall	"	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
CS-2 Bottom Hole	10/8/2013	-	3	X		21.3	851	872.3	<0.050	<0.050	0.104	0.414	0.518	-
AH-3	2/28/2013	0-0.5	-		X	13,800	16,300	30,100	14.2	168	33.1	480	695	330
T-3	10/2/2013	1	-		X	2,500	5,590	8,090	2.95	30.9	12.2	92.4	138	-
	"	2	"		X	8,740	14,300	23,040	13.7	123	40.4	331	508	-
	"	3	3	X		<10.0	14.6	14.6	<0.200	<0.200	<0.200	<0.600	<1.20	-
	"	4	"	X		<10.0	123	123	<0.050	<0.050	<0.050	0.288	<0.300	-
CS-3 North Wall	10/11/2013	-	-	X		325	2,090	2,415	<0.200	1.34	2.78	21.9	26.0	-
CS-3 South Wall	"	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-



Table 1  
VPR

Harrier Fed Com #1  
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Bottom Depth (in)	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	Total						
AH-4	2/28/2013	0-1	-		X	5,160	3,590	8,750	-	-	-	-	-	185
T-4	"	2	"		X	12,200	16,700	28,900	27.0	244	64.7	565	900	-
	"	3	"		X	935	2,200	3,135	0.581	9.88	6.31	48.3	63.0	-
	"	4	4	X		<10.0	<10.0	<10.0	<0.200	<0.200	<0.200	<0.600	<1.20	-
	"	5	"	X		22.9	197	219.9	<0.200	0.214	0.218	1.91	2.34	-
CS-4 North Wall	10/11/2013	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
CS-4 South Wall	"	-	-	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
CS-4 East Wall	"	-	-	X		<10.0	23.5	23.5	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-5	2/28/2013	0-0.5	-		X	4,760	6,240	11,000	-	-	-	-	-	<20.0
CS-5 Bottom Hole	10/4/2013	-	2	X		<10.0	27.4	27.4	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-6	2/28/2013	0-0.5	-		X	4,360	4,550	8,910	-	-	-	-	-	70.1
CS-6 Bottom Hole	10/4/2013	-	2	X		<10.0	85.5	85.5	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-7	2/28/2013	0-1	-		X	1,090	1,800	2,890	-	-	-	-	-	66.0
CS-7 Bottom Hole	10/9/2013	5			X	637	5,220	5,857	<0.250	1.52	2.39	17.6	21.6	-
CS-7 Bottom Hole	10/11/2013	6	6	X		<10.0	83.3	83.3	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-8	2/28/2013	0-1	-		X	9,440	6,450	15,890	<2.00	68.7	16.7	167	252	<20.0
CS-8 Bottom Hole	10/8/2013	-	2	X		<10.0	591	591	<0.050	<0.050	0.051	0.225	<0.300	-
AH-9	2/28/2013	0-1	-		X	8,730	16,900	25,630	<0.400	43.8	15.2	216	275	76.2
CS-9 Bottom Hole	10/8/2013	-	-		X	4,590	16,400	20,990	<2.50	20.3	21.0	193	234	-
CS-9 Bottom Hole	10/12/2013	-	2		X	3,870	15,000	18,870	<1.00	25.5	20.0	171	216	-
CS-9 Bottom Hole	10/15/2013	-	3	X		<10.0	12.8	12.8	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-10	2/28/2013	0-1	-		X	2,980	4,880	7,860	-	-	-	-	-	615
CS-10 Bottom Hole	10/8/2013	-	2		X	645	6,750	7,395	<0.250	0.695	2.95	18.6	22.2	-
CS-10 Bottom Hole	10/12/2013	-	3	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-11	2/28/2013	0-0.5	-		X	10,900	9,830	20,730	<4.00	65.0	15.2	255	335	533
CS-11 Bottom Hole	10/4/2013	-	2	X		<10.0	1,850	1,850	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-12	2/28/2013	0-1	-		X	11,600	9,530	21,130	<2.00	77.0	19.7	273	370	<20.0
	"	1-1.5	-		X	10,200	13,600	23,800	4.90	122	26.3	359	512	909
CS-12 Bottom Hole	10/8/2013	-	2	X		<10.0	738	738	<0.050	<0.050	<0.050	<0.150	<0.300	80.0

Table 1  
VPR  
Harrier Fed Com #1  
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Bottom Depth (in)	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	Total						
AH-13	2/28/2013	0-1	-		X									
	"	1-1.5	-		X	12,700	8,640	21,340	<2.00	73.0	16.2	225	314	<20.0
	"	2-2.5	-		X	10,700	2,390	13,090	15.8	192	34.1	438	680	<20.0
CS-13 Bottom Hole	10/8/2013	-	3	X		<10.0	36.1	36.1	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-14	2/28/2013	0-0.5	-		X	10,500	3,710	14,210	-	-	-	-	-	113
CS-14 Bottom Hole	10/8/2013	-	4	X		<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-15	2/28/2013	0-1	-		X	10,800	8,510	19,310	<2.00	45.4	14.8	199	259	69.1
	"	1-1.5	-		X	6,300	6,270	12,570	<1.00	46.4	13.9	188	248	78.9
CS-15 Bottom Hole	10/8/2013	-	3	X		558	4270	4828	<0.250	<0.500	2.44	12.0	14.5	-
AH-16	2/28/2013	0-1	-		X	5,120	6,730	11,850	-	-	-	-	-	<20.0
	"	1-1.5	-		X	9,630	6,280	15,910	3.4	102.0	38.6	323.0	487.0	247.0
CS-16 Bottom Hole	10/4/2013	-	2	X		<10.0	21.3	21.3	<0.050	<0.050	<0.050	0.203	<0.300	-
AH-17	2/28/2013	0-1	-		X	8,090	4,490	12,580	-	-	-	-	-	123
	"	1-1.5	-		X	2,280	3,380	5,660	-	-	-	-	-	104.0
	"	2-2.5	-		X	1,050	2,290	3,340	-	-	-	-	-	118
CS-17 Bottom Hole	10/12/2013	-	2	X		651	4270	4921	<0.200	0.795	0.315	19.6	20.7	-
AH-18	2/28/2013	0-1	-		X	5,550	7,220	12,770	-	-	-	-	-	64.3
	"	1-1.5	-		X	4,560	5,420	9,980	-	-	-	-	-	<20.0
	"	2-2.5	-		X	7,350	2,410	9,760	-	-	-	-	-	29.7
CS-18 Bottom Hole	10/12/2013	-	2	X		653	4450	5103	<0.200	2.26	3.75	25.0	31.0	-
CS-18 Bottom Hole	10/16/2013	-	3	X		132	996	1128	<0.050	0.724	1.80	11.8	14.3	-
AH-19	2/28/2013	0-1	-		X	7,950	4,790	12,740	-	-	-	-	-	133
	"	1-1.5	-		X	6,940	6,060	13,000	-	-	-	-	-	<20.0
CS-19 Bottom Hole	10/12/2013	-	2	X		430	3900	4330	<0.200	0.645	0.399	13.2	14.2	-
AH-20	2/28/2013	0-1	-		X	3,790	3,740	7,530	-	-	-	-	-	<20.0
	"	1-1.5	-		X	6,89	110.0	116.9	-	-	-	-	-	104
CS-20 Bottom Hole	10/12/2013	-	1	X		26.5	2,340	2,366.5	<0.050	<0.050	<0.050	0.498	0.498	-



Table 1  
VPR  
Harrier Fed Com #1  
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Bottom Depth (in)	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	Total						
AH-21	2/28/2013	0-1	-		X	5,050	7,200	12,250	-	-	-	-	-	34.6
	"	1-1.5	-		X	7,360	8,640	16,000	7.09	99.2	20.4	306	433	79.1
	"	1.5-2	-		X	8,660	1,880	10,540	<2.00	67.5	17.9	228	313	148
CS-21 Bottom Hole	10/4/2013	-	2		X	492	4,930	5,422	<0.200	1.48	2.23	16.6	20.4	-
CS-21 Bottom Hole	10/16/2013	-	3	X		<10.0	163	163	<0.050	<0.050	0.090	0.451	0.541	-
AH-22	2/28/2013	0-1	-		X	1,870	3,550	5,420	-	-	-	-	-	<20.0
	"	1-1.5	-		X	5,400	8,890	14,290	-	-	-	-	-	59
	"	2-2.5	-		X	10,200	12,900	23,100	<4.00	64.6	18.0	280	363	<20.0
	"	3-3.5	-		X	8,030	10,400	18,430	<2.00	61.200	15.300	212.000	288.500	<20.0
	"	4-4.5	-		X	21	94	114	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0
CS-22 Bottom Hole	10/12/2013	-	2	X		<10.0	97	97	<0.050	<0.050	<0.050	<0.150	<0.300	-
AH-23	2/28/2013	0-1	-		X	4,620	4,910	9,530	-	-	-	-	-	<20.0
	"	1-1.5	-		X	4,890.00	485.0	5,375.0	-	-	-	-	-	<20.0
	"	2-2.5	-		X	4,540	7,540	12,080	-	-	-	-	-	<20.0
	"	3-3.5	-	X		12.00	<50.0	12.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	30
	"	4-4.5	-	X		<4.00	<50.0	<50.0	-	-	-	-	-	45
CS-23 Bottom Hole	10/12/2013	-	3	X		486	3,760	4,246	<0.200	0.86	0.40	7.9	9.1	-
AH-24	2/28/2013	0-1	-		X	5.89	<50.0	5.89	-	-	-	-	-	<20.0
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	<20.0
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	34.6
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	<20.0
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	<20.0
CS-24 Bottom Hole	41556.0	-	3	X		183	3480	3663	<0.100	1.01	0.295	4.50	5.81	-
AH-25	2/28/2013	0-1	-		X	4,700	7,700	12,400	-	-	-	-	-	<20.0
	"	1-1.5	-		X	2,480	3,660	6,140	-	-	-	-	-	<20.0
	"	2-2.5	-		X	26,000	10,800	36,800	<4.00	237	60.5	861	1,159	<20.0
	"	3-3.5	-		X	607	1,080	1,687	<0.100	1.13	0.782	14.0	15.9	<20.0
	"	4-4.5	-		X	-	-	-	-	-	-	-	-	<20.0
CS-25 Bottom Hole	10/9/2013	-	5	X		<10.0	488	488	<0.025	<0.050	0.067	0.354	0.421	-

(-) Not Analyzed  
Excavated Depths

## Photos



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View South – T-1, T-2, and T-3



View South – CS-5 at 2.0'



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View North – CS-6 at 2.0'



View Northeast – CS-8 at 1.0'



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View West – CS-10 and CS-11 at 2.0'



View West – CS-11, CS-12, CS-13, CS-14



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View West – CS-17 at 2.0'



View Southwest – CS-21 at 3'



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View Northeast – CS-24 at 3.0'



View South – CS-25 at 5'



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View West – CS-1, CS-2, CS-3, and CS-4



View Southwest – CS-8 and CS-9



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View West – CS-9 through CS-15



View West – CS-15 through CS-17



Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View Southeast – CS-20 and CS-21



View South – CS-22 and CS-23

Operating LLC  
Harrier Fed Com #1 Tank  
Battery  
Lea County, New Mexico



TETRA TECH



View South – CS-24 and CS-25

## Appendix A



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

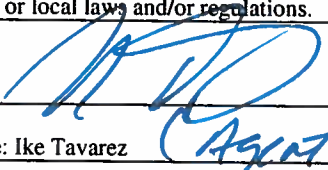
Name of Company <b>VPR Operating LLC</b>	Contact <b>Robert Pullen</b>
Address <b>1406 Camp Craft Rd Suite 106 Austin TX 78746</b>	Telephone No. <b>(572) 327-8776</b>
Facility Name <b>Harrier Fed Com #1</b>	Facility Type <b>Tank Battery</b>
Surface Owner: <b>Federal</b>	Mineral Owner: <b>VPR</b>
Lease No. <b>39214</b>	

### LOCATION OF RELEASE

Unit Letter <b>G</b>	Section <b>35</b>	Township <b>25S</b>	Range <b>32E</b>	Feet from the <b>1.980</b>	North/South Line <b>FNL</b>	Feet from the <b>1500</b>	East/West Line <b>FEL</b>	County <b>Lea County</b>
-------------------------	----------------------	------------------------	---------------------	-------------------------------	--------------------------------	------------------------------	------------------------------	-----------------------------

Latitude **32.08846° N** Longitude **103.64201° W**

### NATURE OF RELEASE

Type of Release: <b>Produced Water</b>	Volume of Release <b>25 bbls</b>	Volume Recovered <b>0 bbls</b>
Source of Release: <b>Flow Back Operations</b>	Date and Hour of Occurrence: <b>Unknown</b>	Date and Hour of Discovery: <b>2/11/13</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>E.L. Gonzales</b>	
By Whom? <b>Robert Pullen</b>	Date and Hour <b>2/12/13 1:30 p.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Overflow from flow back operations. Fresh soil applied, Tetra Tech notified and working on cleanup plan.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Ike Tavarez</b> <i>(Agent for VPR)</i>	Approved by District Supervisor:	
Title: <b>Senior Project Manager</b>	Approval Date:	Expiration Date:
E-mail Address: <b>ike.tavarez@tetrattech.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>10/25/13</b>	Phone: <b>(432) 682-4559</b>	

\* Attach Additional Sheets If Necessary

## Appendix B

**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**VPR-Harrier Federal Com 1**  
**Lea County, New Mexico**

24 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
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	22	23	24
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
31	32	33	34	35	36

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

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

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

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

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

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

- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data
- Field water level
- New Mexico Water and Infrastructure Data System



## Appendix C

## Summary Report

Ike Tavarez  
Tetra Tech  
1910 N. Big Spring Street  
Midland, TX 79705

Report Date: March 15, 2013

Work Order: 13030122

Project Location: Lea Co., NM  
Project Name: VPR/Harrier Fed. Com. #1  
Project Number: 112C05055

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
322367	AH-1 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322368	AH-2 0-1'	soil	2013-02-28	00:00	2013-03-01
322369	AH-2 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322370	AH-2 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322371	AH-2 3-3.5'	soil	2013-02-28	00:00	2013-03-01
322372	AH-2 4-4.5'	soil	2013-02-28	00:00	2013-03-01
322373	AH-3 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322374	AH-4 0-1'	soil	2013-02-28	00:00	2013-03-01
322375	AH-5 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322376	AH-6 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322377	AH-7 0-1'	soil	2013-02-28	00:00	2013-03-01
322378	AH-8 0-1'	soil	2013-02-28	00:00	2013-03-01
322379	AH-9 0-1'	soil	2013-02-28	00:00	2013-03-01
322380	AH-10 0-1'	soil	2013-02-28	00:00	2013-03-01
322381	AH-11 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322382	AH-12 0-1'	soil	2013-02-28	00:00	2013-03-01
322383	AH-12 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322384	AH-13 0-1'	soil	2013-02-28	00:00	2013-03-01
322385	AH-13 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322386	AH-13 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322387	AH-14 0-0.5'	soil	2013-02-28	00:00	2013-03-01
322388	AH-15 0-1'	soil	2013-02-28	00:00	2013-03-01
322389	AH-15 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322390	AH-16 0-1'	soil	2013-02-28	00:00	2013-03-01
322391	AH-16 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322392	AH-17 0-1'	soil	2013-02-28	00:00	2013-03-01
322393	AH-17 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322394	AH-17 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322395	AH-19 0-1'	soil	2013-02-28	00:00	2013-03-01
322396	AH-19 1-1.5'	soil	2013-02-28	00:00	2013-03-01

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296

*This is only a summary. Please, refer to the complete report package for quality control data.*



Sample	Description	Matrix	Date Taken	Time Taken	Date Received
322397	AH-20 0-1'	soil	2013-02-28	00:00	2013-03-01
322398	AH-20 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322399	AH-21 0-1'	soil	2013-02-28	00:00	2013-03-01
322400	AH-21 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322401	AH-21 1.5-2'	soil	2013-02-28	00:00	2013-03-01
322402	AH-22 0-1'	soil	2013-02-28	00:00	2013-03-01
322403	AH-22 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322404	AH-22 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322405	AH-23 3-3.5'	soil	2013-02-28	00:00	2013-03-01
322406	AH-23 4-4.5'	soil	2013-02-28	00:00	2013-03-01
322407	AH-24 0-1'	soil	2013-02-28	00:00	2013-03-01
322408	AH-24 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322409	AH-24 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322410	AH-24 3-3.5'	soil	2013-02-28	00:00	2013-03-01
322411	AH-24 4-4.5'	soil	2013-02-28	00:00	2013-03-01
322412	AH-25 0-1'	soil	2013-02-28	00:00	2013-03-01
322413	AH-25 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322414	AH-25 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322415	AH-25 3-3.5'	soil	2013-02-28	00:00	2013-03-01
322416	AH-25 4-4.5'	soil	2013-02-28	00:00	2013-03-01
322417	AH-18 0-1'	soil	2013-02-28	00:00	2013-03-01
322418	AH-18 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322419	AH-18 2-2.5'	soil	2013-02-28	00:00	2013-03-01
322420	AH-22 3-3.5'	soil	2013-02-28	00:00	2013-03-01
322421	AH-22 4-4.5'	soil	2013-02-28	00:00	2013-03-01
322422	AH-23 0-1'	soil	2013-02-28	00:00	2013-03-01
322423	AH-23 1-1.5'	soil	2013-02-28	00:00	2013-03-01
322424	AH-23 2-2.5'	soil	2013-02-28	00:00	2013-03-01

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
322367 - AH-1 0-0.5'	20.4	168	32.1	412	6340 Q <sub>s</sub>	11800 Q <sub>r</sub> , Q <sub>s</sub>
322368 - AH-2 0-1'					1460 Q <sub>s</sub>	8140 Q <sub>s</sub>
322369 - AH-2 1-1.5'					2100 Q <sub>s</sub>	2840 Q <sub>s</sub>
322373 - AH-3 0-0.5'	14.2	168	33.1	480	16300 Q <sub>s</sub>	13800 Q <sub>r</sub> , Q <sub>s</sub>
322374 - AH-4 0-1'					3590 Q <sub>s</sub>	5160 Q <sub>s</sub>
322375 - AH-5 0-0.5'					6240 Q <sub>s</sub>	4760 Q <sub>s</sub>
322376 - AH-6 0-0.5'					4550 Q <sub>s</sub>	4360 Q <sub>s</sub>
322377 - AH-7 0-1'					1800 Q <sub>s</sub>	1090 Q <sub>s</sub>
322378 - AH-8 0-1'	<2.00 <sup>1</sup>	68.7	16.7	167	6450 Q <sub>s</sub>	9440 Q <sub>s</sub>
322379 - AH-9 0-1'	<0.400 <sup>2</sup> Q <sub>r</sub>	43.8 Q <sub>r</sub>	15.2 Q <sub>r</sub>	216 Q <sub>r</sub>	16900 Q <sub>s</sub>	8730 Q <sub>s</sub>
322380 - AH-10 0-1'					4680 Q <sub>s</sub>	2960 Q <sub>s</sub>
322381 - AH-11 0-0.5'	<4.00 <sup>3</sup>	65.0	15.2	255	9830 Q <sub>s</sub>	10900 Q <sub>s</sub>
322382 - AH-12 0-1'	<2.00 Q <sub>r</sub>	77.0 Q <sub>r</sub>	19.7 Q <sub>r</sub>	273 Q <sub>r</sub>	9530 Q <sub>s</sub>	11600 Q <sub>s</sub>
322383 - AH-12 1-1.5'	4.90 Q <sub>r</sub>	122 Q <sub>r</sub>	26.3 Q <sub>r</sub>	359 Q <sub>r</sub>	13600 Q <sub>s</sub>	10200 Q <sub>s</sub>

continued ...

<sup>1</sup>Dilution due to hydrocarbons.<sup>2</sup>Dilution due to hydrocarbons.<sup>3</sup>Dilution due to hydrocarbons.

... continued

Sample - Field Code	BTEX				TPH DRO - NEW DRO	TPH GRO GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
322384 - AH-13 0-1'	<2.00	73.0	16.2	225	8640 Q <sub>n</sub>	12700 Q <sub>n</sub>
322385 - AH-13 1-1.5'	15.8	192	34.1	438	2390 Q <sub>n</sub>	10700
322386 - AH-13 2-2.5'	6.62	110	22.3	298	10700 Q <sub>n</sub>	9510 Q <sub>n</sub>
322387 - AH-14 0-0.5'					3710 Q <sub>n</sub>	10500 Q <sub>n</sub>
322388 - AH-15 0-1'	<2.00 Q <sub>r</sub>	45.4 Q <sub>r</sub>	14.8 Q <sub>r</sub>	199 Q <sub>r</sub>	8510 Q <sub>n</sub>	10800 Q <sub>n</sub>
322389 - AH-15 1-1.5'	<1.00 Q <sub>r</sub>	46.4 Q <sub>r</sub>	13.9 Q <sub>r</sub>	188 Q <sub>r</sub>	6270 Q <sub>n</sub>	6300 Q <sub>n</sub>
322390 - AH-16 0-1'					6730 Q <sub>n</sub>	5120 Q <sub>n</sub>
322391 - AH-16 1-1.5'	3.37	102	38.6	323	6280 Q <sub>n</sub>	9630 Q <sub>n</sub>
322392 - AH-17 0-1'					4490 Q <sub>n</sub>	8090
322393 - AH-17 1-1.5'					3380 Q <sub>n</sub>	2280 Q <sub>n</sub>
322394 - AH-17 2-2.5'					2290 Q <sub>n</sub>	1050 Q <sub>n</sub>
322395 - AH-19 0-1'					4790 Q <sub>n</sub>	7950
322396 - AH-19 1-1.5'					6060 Q <sub>n</sub>	6940 Q <sub>n</sub>
322397 - AH-20 0-1'					3740 Q <sub>n</sub>	3790
322398 - AH-20 1-1.5'					110 Q <sub>n</sub>	6.89 Q <sub>n</sub>
322399 - AH-21 0-1'					7200 Q <sub>n</sub>	5050
322400 - AH-21 1-1.5'	7.09	99.2	20.4	306	8640 Q <sub>n</sub>	7360 Q <sub>n</sub>
322401 - AH-21 1.5-2'	<2.00 <sup>4</sup> Q <sub>r</sub>	67.5 Q <sub>r</sub> , Q <sub>n</sub>	17.9 Q <sub>r</sub> , Q <sub>n</sub>	228 Q <sub>r</sub> , Q <sub>n</sub>	1880 Q <sub>n</sub>	8660 Q <sub>n</sub>
322402 - AH-22 0-1'					3550 Q <sub>n</sub>	1870 Q <sub>n</sub>
322403 - AH-22 1-1.5'					8890 Q <sub>n</sub>	5400 Q <sub>n</sub>
322404 - AH-22 2-2.5'	<4.00 <sup>5</sup> Q <sub>r</sub>	64.6 Q <sub>r</sub>	18.0 Q <sub>r</sub>	280 Q <sub>r</sub>	12900 Q <sub>n</sub>	10200 Q <sub>n</sub>
322405 - AH-23 3-3.5'	<0.0200 Q <sub>r</sub>	<0.0200 Q <sub>r</sub>	<0.0200 Q <sub>r</sub>	<0.0200 Q <sub>r</sub>	<50.0 Q <sub>n</sub>	12.0 Q <sub>n</sub>
322406 - AH-23 4-4.5'					<50.0 Q <sub>n</sub>	<4.00 Q <sub>n</sub>
322407 - AH-24 0-1'					<50.0 Q <sub>n</sub>	5.89 Q <sub>n</sub>
322412 - AH-25 0-1'					7700 Q <sub>n</sub>	4700
322413 - AH-25 1-1.5'					3660 Q <sub>n</sub>	2480 Q <sub>n</sub>
322414 - AH-25 2-2.5'	<4.00	237	60.5	861	10800 Q <sub>n</sub>	26000 Q <sub>n</sub>
322415 - AH-25 3-3.5'	<0.100 <sup>6</sup>	1.13	0.782	14.0	1080 Q <sub>n</sub>	607 Q <sub>n</sub>
322417 - AH-18 0-1'					7220 Q <sub>n</sub>	5550
322418 - AH-18 1-1.5'					5420 Q <sub>n</sub>	4560
322419 - AH-18 2-2.5'					2410 Q <sub>n</sub>	7350 Q <sub>n</sub>
322420 - AH-22 3-3.5'	<2.00	61.2	15.3	212	10400 Q <sub>n</sub>	8030 Q <sub>n</sub>
322421 - AH-22 4-4.5'	<0.0200	<0.0200	<0.0200	<0.0200	93.7 Q <sub>n</sub>	20.6 Q <sub>n</sub>
322422 - AH-23 0-1'					4910 Q <sub>n</sub>	4620
322423 - AH-23 1-1.5'					485 Q <sub>n</sub>	4890
322424 - AH-23 2-2.5'					7540 Q <sub>n</sub>	4540 Q <sub>n</sub>

Sample: 322367 - AH-1 0-0.5'

Param	Flag	Result	Units	RL
Chloride		2010	mg/Kg	4

Sample: 322368 - AH-2 0-1'

<sup>4</sup>Dilution due to hydrocarbons.<sup>5</sup>Dilution due to hydrocarbons.<sup>6</sup>Dilution due to hydrocarbons.



---

Param	Flag	Result	Units	RL
Chloride		260	mg/Kg	4

---

**Sample: 322369 - AH-2 1-1.5'**

---

Param	Flag	Result	Units	RL
Chloride		450	mg/Kg	4

---

**Sample: 322370 - AH-2 2-2.5'**

---

Param	Flag	Result	Units	RL
Chloride		310	mg/Kg	4

---

**Sample: 322371 - AH-2 3-3.5'**

---

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

---

**Sample: 322372 - AH-2 4-4.5'**

---

Param	Flag	Result	Units	RL
Chloride		55.1	mg/Kg	4

---

**Sample: 322373 - AH-3 0-0.5'**

---

Param	Flag	Result	Units	RL
Chloride		330	mg/Kg	4

---

**Sample: 322374 - AH-4 0-1'**

---

Param	Flag	Result	Units	RL
Chloride		165	mg/Kg	4

---

**Sample: 322375 - AH-5 0-0.5'**

---

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

---

**Sample: 322376 - AH-6 0-0.5'**

Param	Flag	Result	Units	RL
Chloride		70.1	mg/Kg	4

**Sample: 322377 - AH-7 0-1'**

Param	Flag	Result	Units	RL
Chloride		66.0	mg/Kg	4

**Sample: 322378 - AH-8 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322379 - AH-9 0-1'**

Param	Flag	Result	Units	RL
Chloride		76.2	mg/Kg	4

**Sample: 322380 - AH-10 0-1'**

Param	Flag	Result	Units	RL
Chloride		615	mg/Kg	4

**Sample: 322381 - AH-11 0-0.5'**

Param	Flag	Result	Units	RL
Chloride		533	mg/Kg	4

**Sample: 322382 - AH-12 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322383 - AH-12 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		909	mg/Kg	4



**Sample: 322384 - AH-13 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322385 - AH-13 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322386 - AH-13 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322387 - AH-14 0-0.5'**

Param	Flag	Result	Units	RL
Chloride		113	mg/Kg	4

**Sample: 322388 - AH-15 0-1'**

Param	Flag	Result	Units	RL
Chloride		69.1	mg/Kg	4

**Sample: 322389 - AH-15 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		78.9	mg/Kg	4

**Sample: 322390 - AH-16 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322391 - AH-16 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		247	mg/Kg	4

**Sample: 322392 - AH-17 0-1'**

Param	Flag	Result	Units	RL
Chloride		123	mg/Kg	4

**Sample: 322393 - AH-17 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	4

**Sample: 322394 - AH-17 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		118	mg/Kg	4

**Sample: 322395 - AH-19 0-1'**

Param	Flag	Result	Units	RL
Chloride		133	mg/Kg	4

**Sample: 322396 - AH-19 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322397 - AH-20 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322398 - AH-20 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	4

**Sample: 322399 - AH-21 0-1'**

Param	Flag	Result	Units	RL
Chloride		34.6	mg/Kg	4



**Sample: 322400 - AH-21 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		79.1	mg/Kg	4

**Sample: 322401 - AH-21 1.5-2'**

Param	Flag	Result	Units	RL
Chloride		148	mg/Kg	4

**Sample: 322402 - AH-22 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322403 - AH-22 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		59.4	mg/Kg	4

**Sample: 322404 - AH-22 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322405 - AH-23 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		29.7	mg/Kg	4

**Sample: 322406 - AH-23 4-4.5'**

Param	Flag	Result	Units	RL
Chloride		44.5	mg/Kg	4

**Sample: 322407 - AH-24 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322408 - AH-24 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322409 - AH-24 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		34.6	mg/Kg	4

**Sample: 322410 - AH-24 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322411 - AH-24 4-4.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322412 - AH-25 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322413 - AH-25 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322414 - AH-25 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322415 - AH-25 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322416 - AH-25 4-4.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322417 - AH-18 0-1'**

Param	Flag	Result	Units	RL
Chloride		64.3	mg/Kg	4

**Sample: 322418 - AH-18 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322419 - AH-18 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		29.7	mg/Kg	4

**Sample: 322420 - AH-22 3-3.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322421 - AH-22 4-4.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322422 - AH-23 0-1'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

**Sample: 322423 - AH-23 1-1.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4



---

**Sample: 322424 - AH-23 2-2.5'**

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

---

## Analysis Request of Chain of Custody Record

18

(Circle or Specify Method No.)



(432) 682-4559 • Fax (432) 682-3946

Page 107

Please fill-out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy - Willard.

Samples missing from EOC - Attached Receipt date 3/4 - It total BTEX exceeds 50 mg/kg or Benzene exceeds 10 mg/kg run deeper samples all





## Analysis Request of Chain of Custody Record

PAGE: 3 OF:

:30

## ANALYSIS REQUEST

(Circle or Specify Method No.)



# TETRA TECH

**1910 N. Big Spring St.**

**Midland, Texas 79705**

**(432) 682-4559 • Fax (432) 682-3946**

CLIENT NAME: VPR		PROJECT NAME: VPR		SITE MANAGER: FKE TAVAREZ	
PROJECT NO.: 17C05055		PROJECT NAME: VPR / Harrier Fed Com #1		NUMBER OF CONTAINERS	
LAB I.D. NUMBER		DATE		SAMPLE IDENTIFICATION	
TIME		MATRIX		COMB	
DATE		TIME		GRAB	
387	2/28	6	X	AH-14	0-0.5'
388				AH-15	0-1'
389				AH-15	1-1.5'
390				AH-16	0-1'
391				AH-16	1-1.5'
392				AH-17	0-1'
393				AH-17	1-1.5'
394				AH-17	2-2.5'
395				AH-19	0-1'
396				AH-19	1-1.5'

RELINQUISHED BY: (Signature) \_\_\_\_\_

RELINQUISHED BY: (Signature) \_\_\_\_\_

RELINQUISHED BY: (Signature) \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_

DATE: 3/13

TIME: 15:55

DATE: 3/13

TIME: 15:55

DATE: 3/13

TIME: 15:55

RECEIVING LABORATORY: Midland

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

CONTACT: \_\_\_\_\_

STATE: TX

ZIP: \_\_\_\_\_

PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_

REMARKS: 443

SAMPLE CONDITION WHEN RECEIVED: \_\_\_\_\_

**Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.**







13036122

# Analysis Request of Chain of Custody Record

PAGE: 6 OF: 6



**TETRA TECH**  
1910 N. Big Spring St.  
Midland, Texas 79705  
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: <b>VPZ</b>		SITE MANAGER: <b>IKI Tavaraz</b>	
PROJECT NO.: <b>12C05055</b>		PROJECT NAME: <b>VPZ / Horizon Feed Com #1</b>	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION
	2023	2023	
417	2023		417-18 0-1'
418			418-18 1-1.5'
419			419-18 2-2.5'
420			420-22 3-3.5'
421			421-22 4-4.5'
422			422-23 0-1'
423			423-23 1-1.5'
424			424-23 2-2.5'

RELINQUISHED BY: (Signature)	Date: 2/1/23	Time: 0945	RECEIVED BY: (Signature)	Date: 2/1/23	Time: 0945
RELINQUISHED BY: (Signature)	Date: 2/1/23	Time: 0945	RECEIVED BY: (Signature)	Date: 2/1/23	Time: 0945
RELINQUISHED BY: (Signature)	Date: 2/1/23	Time: 0945	RECEIVED BY: (Signature)	Date: 2/1/23	Time: 0945

RECEIVING LABORATORY:	STATE: TX	ZIP: 79705	PHONE: (432) 682-4559
CITY: Midland			
CONTACT: IKI Tavaraz			

SAMPLE CONDITION WHEN RECEIVED: 440		REMARKS:	
-------------------------------------	--	----------	--

ANALYSIS REQUEST (Circle or Specify Method No.)

PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/824	GC/MS Semi Vol. 8270/825	PCB's 8080/608	Post. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
TPH 8015 MOB													
BTX 8021B													

DATE: 2/1/23 TIME: 0945

SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED UPS

TETRA TECH CONTACT PERSON: IKI Tavaraz

RESULTS BY: IKI Tavaraz

RUSH CHARGES AUTHORIZED: Yes No

October 03, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/02/13 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-1 (CS-1) 1' BELOW SURFACE (H302389-01)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.97	1.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	46.1	1.00	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	21.1	1.00	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	162	3.00	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	233	6.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 199 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: GR						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	10/02/2013	ND	432	108	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3790	10.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	8230	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 177 % 65.2-140

Surrogate: 1-Chlorooctadecane 211 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-1 (CS-1) 2' (H302389-02)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>3.35</b>	2.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
<b>Toluene*</b>	<b>29.1</b>	2.00	10/02/2013	ND	2.03	102	2.00	2.05	
<b>Ethylbenzene*</b>	<b>10.2</b>	2.00	10/02/2013	ND	2.13	106	2.00	1.11	
<b>Total Xylenes*</b>	<b>106</b>	6.00	10/02/2013	ND	6.56	109	6.00	1.13	
<b>Total BTX</b>	<b>149</b>	12.0	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 135 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GR				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>384</b>	16.0	10/02/2013	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>3750</b>	10.0	10/02/2013	ND	201	101	200	0.897	
<b>DRO &gt;C10-C28</b>	<b>7270</b>	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 168 % 65.2-140

Surrogate: 1-Chlorooctadecane 194 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-1 (CS-1) 3' (H302389-03)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.32	0.050	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	16.4	0.050	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	10.0	0.050	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	60.8	0.150	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	88.5	0.300	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 567 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GR					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	10/02/2013	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						S-04

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2460	10.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	5780	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 207 % 65.2-140

Surrogate: 1-Chlorooctadecane 179 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-1 (CS-1) 4' (H302389-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	<0.050	0.050	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	<0.050	0.050	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	<0.150	0.150	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	<0.300	0.300	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GR					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/02/2013	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	16.7	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 92.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.7 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-2 (CS-2) 1' BELOW SURFACE (H302389-05)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.12</b>	1.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
<b>Toluene*</b>	<b>19.1</b>	1.00	10/02/2013	ND	2.03	102	2.00	2.05	
<b>Ethylbenzene*</b>	<b>10.8</b>	1.00	10/02/2013	ND	2.13	106	2.00	1.11	
<b>Total Xylenes*</b>	<b>70.3</b>	3.00	10/02/2013	ND	6.56	109	6.00	1.13	
<b>Total BTEX</b>	<b>102</b>	6.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 165 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>2330</b>	10.0	10/02/2013	ND	201	101	200	0.897	
<b>DRO &gt;C10-C28</b>	<b>5610</b>	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 211 % 65.2-140

Surrogate: 1-Chlorooctadecane 181 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-2 (CS-2) 2' (H302389-06)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.00	1.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	32.9	1.00	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	15.8	1.00	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	126	3.00	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	178	6.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 173 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1920	10.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	5020	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 189 % 65.2-140

Surrogate: 1-Chlorooctadecane 164 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-3 (CS-3) 1' BELOW SURFACE (H302389-07)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.95	1.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	30.9	1.00	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	12.2	1.00	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	92.4	3.00	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	138	6.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 165 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2500	10.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	5590	10.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 155 % 65.2-140

Surrogate: 1-Chlorooctadecane 181 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-3 (CS-3) 2' (H302389-08)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	13.7	1.00	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	123	1.00	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	40.4	1.00	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	331	3.00	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	508	6.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 201 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	8740	50.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	14300	50.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 235 % 65.2-140

Surrogate: 1-Chlorooctadecane 338 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-3 (CS-3) 3' (H302389-09)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.200	0.200	10/02/2013	ND	1.97	98.6	2.00	1.41		
Toluene*	<0.200	0.200	10/02/2013	ND	2.03	102	2.00	2.05		
Ethylbenzene*	<0.200	0.200	10/02/2013	ND	2.13	106	2.00	1.11		
Total Xylenes*	<0.600	0.600	10/02/2013	ND	6.56	109	6.00	1.13		
Total BTEX	<1.20	1.20	10/02/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 118 % 89.4-126

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	10/02/2013	ND	201	101	200	0.897			
DRO >C10-C28	14.6	10.0	10/02/2013	ND	199	99.7	200	0.688			

Surrogate: 1-Chlorooctane 104 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-3 (CS-3) 4' (H302389-10)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/02/2013	ND	1.97	98.6	2.00	1.41		
Toluene*	<0.050	0.050	10/02/2013	ND	2.03	102	2.00	2.05		
Ethylbenzene*	<0.050	0.050	10/02/2013	ND	2.13	106	2.00	1.11		
Total Xylenes*	0.288	0.150	10/02/2013	ND	6.56	109	6.00	1.13		
Total BTEX	<0.300	0.300	10/02/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 120 % 89.4-126

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	10/02/2013	ND	201	101	200	0.897			
<b>DRO &gt;C10-C28</b>	<b>123</b>	10.0	10/02/2013	ND	199	99.7	200	0.688			

Surrogate: 1-Chlorooctane 98.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.0 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-4 (CS-4) 1' BELOW SURFACE (H302389-11)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.88	0.500	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	28.7	0.500	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	19.1	0.500	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	125	1.50	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	175	3.00	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 266 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3130	50.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	6360	50.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 175 % 65.2-140

Surrogate: 1-Chlorooctadecane 186 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

Received:	10/02/2013	Sampling Date:	10/01/2013
Reported:	10/03/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: T-4 (CS-4) 2' (H302389-12)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	27.0	10.0	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	244	10.0	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	64.7	10.0	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	565	30.0	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	900	60.0	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 130 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12200	50.0	10/02/2013	ND	201	101	200	0.897	
DRO >C10-C28	16700	50.0	10/02/2013	ND	199	99.7	200	0.688	

Surrogate: 1-Chlorooctane 272 % 65.2-140

Surrogate: 1-Chlorooctadecane 370 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-4 (CS-4) 3' (H302389-13)**

BTEX 8021B			mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.581	0.200	10/02/2013	ND	1.97	98.6	2.00	1.41		
Toluene*	9.88	0.200	10/02/2013	ND	2.03	102	2.00	2.05		
Ethylbenzene*	6.31	0.200	10/02/2013	ND	2.13	106	2.00	1.11		
Total Xylenes*	46.3	0.600	10/02/2013	ND	6.56	109	6.00	1.13		
Total BTEX	63.0	1.20	10/02/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 230 % 89.4-126

TPH 8015M			mg/kg				Analyzed By: MS		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	935	10.0	10/02/2013	ND	206	103	200	0.565	
DRO >C10-C28	2200	10.0	10/02/2013	ND	203	102	200	4.45	

Surrogate: 1-Chlorooctane 137 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/02/2013  
 Reported: 10/03/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: T-4 (CS-4) 4' (H302389-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	<0.200	0.200	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	<0.200	0.200	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	<0.600	0.600	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	<1.20	1.20	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 116 % 89.4-126

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	10/02/2013	ND	206	103	200	0.565	
DRO >C10-C28	<10.0	10.0	10/02/2013	ND	203	102	200	4.45	

Surrogate: 1-Chlorooctane 118 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/02/2013  
Reported: 10/03/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/01/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: T-4 (CS-4) 5' (H302389-15)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/02/2013	ND	1.97	98.6	2.00	1.41	
Toluene*	0.214	0.200	10/02/2013	ND	2.03	102	2.00	2.05	
Ethylbenzene*	0.218	0.200	10/02/2013	ND	2.13	106	2.00	1.11	
Total Xylenes*	1.91	0.600	10/02/2013	ND	6.56	109	6.00	1.13	
Total BTEX	2.34	1.20	10/02/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 124 % 89.4-126

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	22.9	10.0	10/02/2013	ND	206	103	200	0.565	
DRO >C10-C28	197	10.0	10/02/2013	ND	203	102	200	4.45	

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- S-06      The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04      The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND        Analyte NOT DETECTED at or above the reporting limit
- RPD      Relative Percent Difference
- \*\*        Samples not received at proper temperature of 6°C or below.
- \*\*\*      Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Company Name:</b> Tetra Tech		<b>P.O. #:</b>																			
<b>Project Manager:</b> The Tawarez		<b>Company:</b> Tetra Tech																			
<b>Address:</b> 4001 N. Big Spring St.		<b>Attn:</b>																			
<b>City:</b> Midland	<b>State:</b> TX	<b>Zip:</b> 79705																			
<b>Phone #:</b> 432-682-4559	<b>Fax #:</b>	<b>Address:</b> 4001 N. Big Spring St.																			
<b>Project #:</b> 11ZC05055	<b>Project Owner:</b> UPR	<b>City:</b> Midland																			
<b>Project Name:</b> Harrier Fed Co. #1		<b>State:</b> TX																			
<b>Project Location:</b> Lee Co. NM		<b>Zip:</b> 79705																			
<b>Sample Name:</b> Marcus Kujawski	<b>Phone #:</b> 432-682-4559	<b>Fax #:</b>																			
<small>FOR LAB USE ONLY</small>																					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING DATE	TIME									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :												
H302389	T-1 (CS-1) 1' below surface	G	1	X																	
	2'																				
	3'																				
	4'																				
	T-2 (CS-2) 1' below surface																				
	2'																				
	T-3 (CS-3) 1' below surface																				
	2'																				
	3'																				
	4'																				
	ID																				

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

<b>Relinquished By:</b> <i>Marcus Kujawski</i>	<b>Date:</b> 1D-1-13	<b>Received By:</b> <i>Chad Henderson</i>
<b>Time:</b>	<b>Time:</b>	<b>Time:</b>
<b>Relinquished By:</b>	<b>Date:</b>	<b>Received By:</b>
<b>Time:</b>	<b>Time:</b>	<b>Time:</b>

<b>Delivered By:</b> (Circle One) Sampler - UPS   Bus   Other:	<b>Sample Condition</b> <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> <i>[Signature]</i>
---	--	---------------------------------------

**REMARKS:**  
Email: ike.tawarez@tetratech.com  
marcus.kujawski@tetratech.com  
RUSH!!



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

Company Name: <b>Teche Tech</b>		P.O. #:	
Project Manager: <b>THE TAVANET</b>		Company:	
Address: <b>4001 N. Big Spring St.</b>		Address:	
City: <b>Midland</b>		Attn:	
State: <b>TX</b> Zip: <b>79905</b>		State:	
Phone #: <b>432-682-4559</b> Fax #:		City:	
Project #: <b>11260505</b> Project Owner: <b>VPR</b>		State:	
Project Name: <b>Hackett Fed Com #1</b>		Zip:	
Project Location: <b>See Co. Map</b>		Phone #:	
Sample Name: <b>MARUS KUGAYSKI</b>		Fax #:	

FOR LAB USE ONLY		Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE TIME		MATRIX PRESERV. SAMPLING	
H300389		11		7-4 (CS-4) Below Surface		6		2013	
12		12		2'		1		10-1	
13		13		2'		1			
14		14		2'		1			
15		15		5'		1			

PLEASE NOTE: Liability and Damages, Contractor's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.		Relinquished By: <i>Murkil</i> Date: <i>10-2-13</i> Time: <i>8:15</i>		Received By: <i>Medi Henderson</i> Date: <i>10-2-13</i> Time:		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>		CHECKED BY: <i>(Signature)</i>	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		40		REMARKS: <b>DASH!!</b>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #:	

October 04, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/04/13 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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).

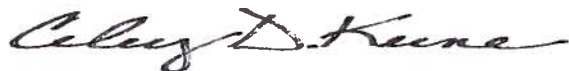
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/04/2013  
 Reported: 10/04/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: STOCKPILE 1 (H302405-01)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.254</b>	0.250	10/04/2013	ND	1.79	89.4	2.00	1.73	
<b>Toluene*</b>	<b>3.06</b>	0.500	10/04/2013	ND	1.80	89.8	2.00	0.885	
<b>Ethylbenzene*</b>	<b>3.31</b>	0.500	10/04/2013	ND	1.83	91.5	2.00	2.53	
<b>Total Xylenes*</b>	<b>20.1</b>	1.50	10/04/2013	ND	5.59	93.1	6.00	1.43	
<b>Total BTEX</b>	<b>26.7</b>	3.00	10/04/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 156 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>634</b>	10.0	10/04/2013	ND	213	107	200	4.79	
<b>DRO &gt;C10-C28</b>	<b>4100</b>	10.0	10/04/2013	ND	206	103	200	6.28	

Surrogate: 1-Chlorooctane 156 % 65.2-140

Surrogate: 1-Chlorooctadecane 153 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/04/2013  
 Reported: 10/04/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: STOCKPILE 2 (H302405-02)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.06	0.250	10/04/2013	ND	1.79	89.4	2.00	1.73	
Toluene*	17.4	0.500	10/04/2013	ND	1.80	89.8	2.00	0.885	
Ethylbenzene*	9.38	0.500	10/04/2013	ND	1.83	91.5	2.00	2.53	
Total Xylenes*	68.6	1.50	10/04/2013	ND	5.59	93.1	6.00	1.43	
Total BTEX	96.4	3.00	10/04/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 175 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1090	10.0	10/04/2013	ND	213	107	200	4.79	
DRO >C10-C28	3520	10.0	10/04/2013	ND	206	103	200	6.28	

Surrogate: 1-Chlorooctane 158 % 65.2-140

Surrogate: 1-Chlorooctadecane 143 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/04/2013  
 Reported: 10/04/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/03/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: STOCKPILE 3 (H302405-03)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.534	0.500	10/04/2013	ND	1.79	89.4	2.00	1.73	
Toluene*	7.63	1.00	10/04/2013	ND	1.80	89.8	2.00	0.885	
Ethylbenzene*	5.18	1.00	10/04/2013	ND	1.83	91.5	2.00	2.53	
Total Xylenes*	40.0	3.00	10/04/2013	ND	5.59	93.1	6.00	1.43	
Total BTEX	53.4	6.00	10/04/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 139 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	633	10.0	10/04/2013	ND	213	107	200	4.79	
DRO >C10-C28	2470	10.0	10/04/2013	ND	206	103	200	6.28	

Surrogate: 1-Chlorooctane 140 % 65.2-140

Surrogate: 1-Chlorooctadecane 129 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

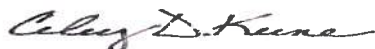
- S-04      The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND        Analyte NOT DETECTED at or above the reporting limit
- RPD      Relative Percent Difference
- \*\*        Samples not received at proper temperature of 6°C or below.
- \*\*\*      Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



# CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240  
(576) 393-2326 FAX (576) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### ANALYSIS REQUEST

Company Name: Tetra Tech

Project Manager: The TAVAREZ

Address: 4001 N Big Spring St

City: Milled State: TX Zip: 79705

Phone #: 432-682-4559 Fax #:

Project #: 112605055 Project Owner: UPR

Project Name: HARRIS Fed Co #1

Project Location: Lee B, NM

Sampler Name: Marcus Kujawski

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

#302405

1 STOCKPILE - 1

2 STOCKPILE - 2

3 STOCKPILE - 3

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

(2013)

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE



October 07, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/04/13 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received:	10/04/2013	Sampling Date:	10/02/2013
Reported:	10/07/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-5 (AH-5) BOTTOM HOLE (H302406-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/04/2013	ND	1.79	89.4	2.00	1.73	
Toluene*	<0.050	0.050	10/04/2013	ND	1.80	89.8	2.00	0.885	
Ethylbenzene*	<0.050	0.050	10/04/2013	ND	1.83	91.5	2.00	2.53	
Total Xylenes*	<0.150	0.150	10/04/2013	ND	5.59	93.1	6.00	1.43	
Total BTEX	<0.300	0.300	10/04/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 89.4-126

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	10/04/2013	ND	213	107	200	4.79	
DRO >C10-C28	27.4	10.0	10/04/2013	ND	206	103	200	6.28	

Surrogate: 1-Chlorooctane 85.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 75.5 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/04/2013  
Reported: 10/07/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/02/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-6 (AH-6) BOTTOM HOLE (H302406-02)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/04/2013	ND	1.79	89.4	2.00	1.73	
Toluene*	<0.050	0.050	10/04/2013	ND	1.80	89.8	2.00	0.885	
Ethylbenzene*	<0.050	0.050	10/04/2013	ND	1.83	91.5	2.00	2.53	
Total Xylenes*	<0.150	0.150	10/04/2013	ND	5.59	93.1	6.00	1.43	
Total BTEX	<0.300	0.300	10/04/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

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	10/04/2013	ND	213	107	200	4.79	
DRO >C10-C28	85.5	10.0	10/04/2013	ND	206	103	200	6.28	

Surrogate: 1-Chlorooctane 84.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 83.6 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TETRA TECH		P.O. #:		ANALYSIS REQUEST																																							
Project Manager: Ike Tavares		Company: Tetra Tech																																									
Address: 4001 N. Big Springs St.		Attn:																																									
City: Midland		Address:																																									
Phone #: 432-682-4559		City:																																									
Fax #: 432-682-4559		State:																																									
Project #: 112C05055		Zip:																																									
Project Owner: VPR		Phone #:																																									
Project Name: Harsco Fed Can #2		Fax #:																																									
Project Location: Lee Co, NM																																											
Sample Name: Marcus Kujawski																																											
FOR LAB USE ONLY																																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME															
1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16													
1302406		25-5 (AH-5) Bottom Hole		6		1		X		X		X		X		X		X		X		X		X		X		X		X													
2		25-6 (AH-6) Bottom Hole		6		1		X		X		X		X		X		X		X		X		X		X		X		X													



October 09, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #2

Enclosed are the results of analyses for samples received by the laboratory on 10/08/13 8:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/08/2013  
 Reported: 10/09/2013  
 Project Name: HARRIER FED COM #2  
 Project Number: 112C5055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/07/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: AH-2 BOTTOM HOLE 3' (H302427-01)**

BTEX 8021B			mg/kg		Analyzed By: MS			S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414		
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152		
Ethylbenzene*	0.104	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113		
Total Xylenes*	0.414	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192		
Total BTEX	0.518	0.300	10/08/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 152 % 89.4-126

TPH 8015M			mg/kg				Analyzed By: MS		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	21.3	10.0	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	851	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 86.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-8 BOTTOM HOLE 2' (H302427-02)**

BTEX 8021B	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	<b>0.051</b>	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	<b>0.225</b>	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	<0.300	0.300	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 133 % 89.4-126

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	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	<b>591</b>	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 92.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/08/2013  
 Reported: 10/09/2013  
 Project Name: HARRIER FED COM #2  
 Project Number: 112C5055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/07/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: AH-9 BOTTOM HOLE 2' (H302427-03)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.50	2.50	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	20.3	5.00	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	21.0	5.00	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	193	15.0	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	234	27.5	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 144 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4590	100	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	16400	100	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 258 % 65.2-140

Surrogate: 1-Chlorooctadecane 382 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/08/2013  
 Reported: 10/09/2013  
 Project Name: HARRIER FED COM #2  
 Project Number: 112C5055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/07/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: AH-10 BOTTOM HOLE 2' (H302427-04)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.250	0.250	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	0.695	0.500	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	2.95	0.500	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	18.6	1.50	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	22.2	2.75	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 177 % 89.4-126

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	645	100	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	6750	100	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 144 % 65.2-140

Surrogate: 1-Chlorooctadecane 174 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-11 BOTTOM HOLE 2' (H302427-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414		
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152		
Ethylbenzene*	<0.050	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113		
Total Xylenes*	<0.150	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192		
Total BTEX	<0.300	0.300	10/08/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 89.4-126

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	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	1850	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 89.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-12 BOTTOM HOLE 2' (H302427-06)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	<0.050	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	<0.150	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	<0.300	0.300	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 121 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/09/2013	ND	432	108	400	3.77	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	738	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 87.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.8 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-13 BOTTOM HOLE 3' (H302427-07)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	<0.050	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	<0.150	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	<0.300	0.300	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 121 % 89.4-126

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	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	36.1	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-14 BOTTOM HOLE 4' (H302427-08)**
**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	<0.050	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	<0.150	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	<0.300	0.300	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 124 % 89.4-126

**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	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	<10.0	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 93.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-15 BOTTOM HOLE 3' (H302427-09)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.250	0.250	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.500	0.500	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	2.44	0.500	10/08/2013	ND	1.93	96.5	2.00	0.113	
Total Xylenes*	12.0	1.50	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	14.5	2.75	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 177 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	558	10.0	10/08/2013	ND	201	101	200	0.560	
DRO >C10-C28	4270	10.0	10/08/2013	ND	211	105	200	8.27	

Surrogate: 1-Chlorooctane 162 % 65.2-140

Surrogate: 1-Chlorooctadecane 144 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/08/2013  
Reported: 10/09/2013  
Project Name: HARRIER FED COM #2  
Project Number: 112C5055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/07/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: AH-16 BOTTOM HOLE 2' (H302427-10)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.414	
Toluene*	<0.050	0.050	10/08/2013	ND	1.90	94.8	2.00	0.152	
Ethylbenzene*	<0.050	0.050	10/08/2013	ND	1.93	96.5	2.00	0.113	
<b>Total Xylenes*</b>	<b>0.203</b>	0.150	10/08/2013	ND	5.83	97.2	6.00	0.0192	
Total BTEX	<0.300	0.300	10/08/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 89.4-126

**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	10/08/2013	ND	201	101	200	0.560	
<b>DRO &gt;C10-C28</b>	<b>21.3</b>	10.0	10/08/2013	ND	211	105	200	8.27	


Surrogate: 1-Chlorooctane 94.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 86.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- S-06      The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04      The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND        Analyte NOT DETECTED at or above the reporting limit
- RPD      Relative Percent Difference
- \*\*        Samples not received at proper temperature of 6°C or below.
- \*\*\*      Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Tetra Tech</u>		P.O. #:	
Project Manager: <u>Mike Tavares</u>		Company: <u>Tetra Tech</u>	
Address: <u>400 N Big Spring St.</u>		Attn:	
City: <u>Midland</u>		Address:	
State: <u>TX</u> Zip: <u>79705</u>		City:	
Phone #: <u>432-682-4555</u> Fax #:		State:	
Project #: <u>11265055</u> Project Owner: <u>VPR</u>		Zip:	
Project Name: <u>Huastex Fed Camp #2</u>		Phone #:	
Project Location: <u>Lea Co, NM</u>		Fax #:	
Sampler Name: <u>Marcus Kujawski</u>			
FOR LAB USE ONLY		MATRIX	
Lab I.D. Sample I.D.		PRESERV	
H3024107		SAMPLING	
1 AH-2 Bottom Hole 3' 2'		DATE 6-13-10	
2 AH-8 " 2' 2'		TIME	
3 AH-4 " 2' 2'		15 Tex 802113	
4 AH-10 " 2' 2'		TPH 8015 mud	
5 AH-11 " 2' 2'		CHLORIDES	
6 AH-12 " 2' 2'			
7 AH-13 " 3' 4'			
8 AH-14 " 4'			
9 AH-15 " 3'			
10 AH-16 " 2'			
PLEASE NOTE: Liability and Damages. Cardinal's liability and damages are limited to the amount paid by the client for the analysis. All claims including those for negligence and any other causes whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the analysis. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.			
Relinquished By: <u>Mike Tavares</u> Date: <u>6-13-10</u> Time: <u>8:05</u>		Received By: <u>Mike Tavares</u>	
Relinquished By: <u>Mike Tavares</u> Date: <u>6-13-10</u> Time: <u>8:05</u>		Received By: <u>Mike Tavares</u>	
Delivered By: (Circle One) <u>UPS</u>		Sample Condition	
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		CHECKED BY: <u>Mike Tavares</u>	
Sampler - UPS - Bus - Other: <u>3.40</u>		No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>	
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326		#54	

October 10, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/09/13 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/09/2013  
 Reported: 10/10/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/08/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-7 BOTTOM HOLE 5' (H302434-01)**

BTEX 8021B	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.250	0.250	10/09/2013	ND	1.97	98.6	2.00	4.07	
Toluene*	1.52	0.500	10/09/2013	ND	1.99	99.3	2.00	4.73	
Ethylbenzene*	2.39	0.500	10/09/2013	ND	2.01	100	2.00	4.36	
Total Xylenes*	17.6	1.50	10/09/2013	ND	5.88	98.1	6.00	4.75	
Total BTEX	21.6	2.75	10/09/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 141 % 89.4-126

TPH 8015M	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	637	10.0	10/09/2013	ND	200	100	200	0.683	
DRO >C10-C28	5220	10.0	10/09/2013	ND	194	97.0	200	2.22	

Surrogate: 1-Chlorooctane 180 % 65.2-140

Surrogate: 1-Chlorooctadecane 175 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/09/2013  
 Reported: 10/10/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/08/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-24 (AH-24) BH 3' (H302434-02)**

BTEX 8021B	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	10/09/2013	ND	1.97	98.6	2.00	4.07	
Toluene*	1.01	0.200	10/09/2013	ND	1.99	99.3	2.00	4.73	
Ethylbenzene*	0.295	0.200	10/09/2013	ND	2.01	100	2.00	4.36	
Total Xylenes*	4.50	0.600	10/09/2013	ND	5.88	98.1	6.00	4.75	
Total BTEX	5.81	1.10	10/09/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 205 % 89.4-126

TPH 8015M	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	183	10.0	10/09/2013	ND	200	100	200	0.683	
DRO >C10-C28	3480	10.0	10/09/2013	ND	194	97.0	200	2.22	

Surrogate: 1-Chlorooctane 143 % 65.2-140

Surrogate: 1-Chlorooctadecane 160 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/09/2013  
Reported: 10/10/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/08/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-25 (AH-25) BH 5' (H302434-03)**
**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	10/09/2013	ND	1.97	98.6	2.00	4.07	
Toluene*	<0.050	0.050	10/09/2013	ND	1.99	99.3	2.00	4.73	
Ethylbenzene*	<b>0.067</b>	0.050	10/09/2013	ND	2.01	100	2.00	4.36	
Total Xylenes*	<b>0.354</b>	0.150	10/09/2013	ND	5.88	98.1	6.00	4.75	
Total BTEX	<b>0.421</b>	0.275	10/09/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 117 % 89.4-126

**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	10/09/2013	ND	200	100	200	0.683	
DRO >C10-C28	<b>488</b>	10.0	10/09/2013	ND	194	97.0	200	2.22	

Surrogate: 1-Chlorooctane 93.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND             Analyte NOT DETECTED at or above the reporting limit
- RPD            Relative Percent Difference
- \*\*              Samples not received at proper temperature of 6°C or below.
- \*\*\*             Insufficient time to reach temperature.
- \*               Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

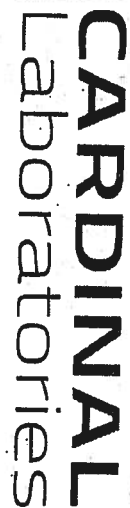
\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



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

Page 6 of 6

October 14, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/11/13 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-1 (AH-1) NORTH WALL (H302472-01)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00		
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703		
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13		
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99		
Total BTEX	<0.300	0.300	10/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.3 % 89.4-126

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	<16.0	16.0	10/11/2013	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	10/11/2013	ND	206	103	200	6.70			
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	197	98.3	200	7.58			

Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-1 (AH-1) SOUTH WALL (H302472-02)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 98.9 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/11/2013	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	10/11/2013	ND	206	103	200	6.70	
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	197	98.3	200	7.58	

Surrogate: 1-Chlorooctane 99.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-2 (AH-2) NORTH WALL (H302472-03)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.7 % 89.4-126

**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	10/11/2013	ND	206	103	200	6.70	
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	197	98.3	200	7.58	

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

Received:	10/11/2013	Sampling Date:	10/11/2013
Reported:	10/14/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-2 (AH-2) SOUTH WALL (H302472-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.2 % 89.4-126

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	10/11/2013	ND	206	103	200	6.70	
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	197	98.3	200	7.58	

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-3 (AH-3) NORTH WALL (H302472-05)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	1.34	0.200	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	2.78	0.200	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	21.9	0.600	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	26.0	1.20	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 194 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	325	10.0	10/11/2013	ND	206	103	200	6.70	
DRO >C10-C28	2090	10.0	10/11/2013	ND	197	98.3	200	7.58	

Surrogate: 1-Chlorooctane 127 % 65.2-140

Surrogate: 1-Chlorooctadecane 127 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received:	10/11/2013	Sampling Date:	10/11/2013
Reported:	10/14/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-3 (AH-3) SOUTH WALL (H302472-06)**

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

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	10/11/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 109 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-4 (AH-4) NORTH WALL (H302472-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 98.3 % 89.4-126

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	10/11/2013	ND	198	99.1	200	6.11		
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	191	95.7	200	11.0		

Surrogate: 1-Chlorooctane 87.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received:	10/11/2013	Sampling Date:	10/11/2013
Reported:	10/14/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-4 (AH-4) SOUTH WALL (H302472-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 98.5 % 89.4-126

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	10/11/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	<10.0	10.0	10/11/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 92.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.6 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/11/2013  
 Reported: 10/14/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-4 (AH-4) EAST WALL (H302472-09)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/12/2013	ND	1.88	93.8	2.00	1.00		
Toluene*	<0.050	0.050	10/12/2013	ND	1.89	94.4	2.00	0.703		
Ethylbenzene*	<0.050	0.050	10/12/2013	ND	1.89	94.7	2.00	1.13		
Total Xylenes*	<0.150	0.150	10/12/2013	ND	5.58	93.1	6.00	1.99		
Total BTEX	<0.300	0.300	10/12/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

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	10/12/2013	ND	198	99.1	200	6.11			
DRO >C10-C28	23.5	10.0	10/12/2013	ND	191	95.7	200	11.0			

Surrogate: 1-Chlorooctane 83.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 83.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-7 BOTTOM HOLE 6' (H302472-10)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/11/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/11/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/11/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/11/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 100 % 89.4-126

**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	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	83.3	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 111 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-9 (AH-9) BOTTOM HOLE 2' (H302472-11)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	25.5	1.00	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	20.0	1.00	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	171	3.00	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	216	6.00	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 203 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3870	100	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	15000	100	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 244 % 65.2-140

Surrogate: 1-Chlorooctadecane 358 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-10 (AH-10) BOTTOM HOLE 3' (H302472-12)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 100 % 89.4-126

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	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	<10.0	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/11/2013  
 Reported: 10/14/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-17 (AH-17) BOTTOM HOLE 2' (H302472-13)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	0.795	0.200	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	0.315	0.200	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	19.6	0.600	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	20.7	1.20	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	651	10.0	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	4270	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 170 % 65.2-140

Surrogate: 1-Chlorooctadecane 162 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received:	10/11/2013	Sampling Date:	10/11/2013
Reported:	10/14/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-18 (AH-18) BOTTOM HOLE 2' (H302472-14)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	2.26	0.200	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	3.75	0.200	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	25.0	0.600	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	31.0	1.20	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 227 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	653	10.0	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	4450	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 155 % 65.2-140

Surrogate: 1-Chlorooctadecane 182 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/11/2013  
 Reported: 10/14/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-19 (AH-19) BOTTOM HOLE 2' (H302472-15)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	0.645	0.200	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	0.399	0.200	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	13.2	0.600	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	14.2	1.20	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.0 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	430	10.0	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	3900	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 156 % 65.2-140

Surrogate: 1-Chlorooctadecane 163 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-20 (AH-20) BOTTOM HOLE 1' (H302472-16)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/12/2013	ND	1.89	94.7	2.00	1.13	
<b>Total Xylenes*</b>	<b>0.498</b>	0.150	10/12/2013	ND	5.58	93.1	6.00	1.99	
<b>Total BTEX</b>	<b>0.498</b>	0.300	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 157 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>26.5</b>	10.0	10/12/2013	ND	198	99.1	200	6.11	
<b>DRO &gt;C10-C28</b>	<b>2340</b>	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 150 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received:	10/11/2013	Sampling Date:	10/11/2013
Reported:	10/14/2013	Sampling Type:	Soil
Project Name:	HARRIER FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	112L05055	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: CS-21 (AH-21) BOTTOM HOLE 2' (H302472-17)**

BTEX 8021B	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	1.48	0.200	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	2.23	0.200	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	16.6	0.600	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	20.4	1.20	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 219 % 89.4-126

TPH 8015M	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	492	10.0	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	4930	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 160 % 65.2-140

Surrogate: 1-Chlorooctadecane 191 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-22 (AH-22) BOTTOM HOLE 2' (H302472-18)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	<0.050	0.050	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	<0.050	0.050	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	<0.150	0.150	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	<0.300	0.300	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 89.4-126

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	10/12/2013	ND	198	99.1	200	6.11	
DRO >C10-C28	96.7	10.0	10/12/2013	ND	191	95.7	200	11.0	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/11/2013  
Reported: 10/14/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-23 (AH-23) BOTTOM HOLE 3' (H302472-19)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/12/2013	ND	1.88	93.8	2.00	1.00	
Toluene*	0.863	0.200	10/12/2013	ND	1.89	94.4	2.00	0.703	
Ethylbenzene*	0.396	0.200	10/12/2013	ND	1.89	94.7	2.00	1.13	
Total Xylenes*	7.87	0.600	10/12/2013	ND	5.58	93.1	6.00	1.99	
Total BTEX	9.13	1.20	10/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	486	10.0	10/12/2013	ND	198	99.1	200	6.11		
DRO >C10-C28	3760	10.0	10/12/2013	ND	191	95.7	200	11.0		

Surrogate: 1-Chlorooctane 155 % 65.2-140

Surrogate: 1-Chlorooctadecane 164 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**


S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



# CARDINAL Laboratories

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>TECHRA TECH</b>		P.O. #:		ANALYSIS REQUEST																																					
Project Manager: <b>THE TAVAREZ</b>		Company: <b>TECHRA TECH</b>																																							
Address: <b>4001 W. Big Spring St.</b>		Attn:																																							
City: <b>Midland</b>		Address:																																							
Phone #: <b>(432) 672-4559</b>		City:																																							
Fax #: <b></b>		State:																																							
Project #: <b>1205055</b>		Zip:																																							
Project Owner: <b>UPC</b>		Phone #:																																							
Project Name: <b>Hawkins Field Cor 2</b>		Fax #:																																							
Project Location: <b>Lee Co. NM</b>																																									
Sampler Name: <b>Marques Kyjowski</b>																																									
FOR LAB USE ONLY																																									
Lab I.D.		Sample I.D.		MATRIX		PRESERV		SAMPLING																																	
H302477		H302477		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL*		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME													
1		CS-1 (AH-1) SOUTH SIDE		1		1		X																																	
2		CS-1 (AH-1) SOUTH SIDE		1		1		X																																	
3		CS-2 (AH-2) NORTH SIDE		1		1		X																																	
4		CS-2 (AH-2) SOUTH SIDE		1		1		X																																	
5		CS-3 (AH-3) NORTH SIDE		1		1		X																																	
6		CS-3 (AH-3) SOUTH SIDE		1		1		X																																	
7		CS-4 (AH-4) NORTH SIDE		1		1		X																																	
8		CS-4 (AH-4) SOUTH SIDE		1		1		X																																	
9		CS-5 (AH-5) EAST SIDE		1		1		X																																	
10		CS-7 (AH-7) WEST SIDE		1		1		X																																	
11		CS-7 (AH-7) WEST SIDE		1		1		X																																	
12		CS-7 (AH-7) WEST SIDE		1		1		X																																	
13		CS-7 (AH-7) WEST SIDE		1		1		X																																	
14		CS-7 (AH-7) WEST SIDE		1		1		X																																	
15		CS-7 (AH-7) WEST SIDE		1		1		X																																	
16		CS-7 (AH-7) WEST SIDE		1		1		X																																	
17		CS-7 (AH-7) WEST SIDE		1		1		X																																	
18		CS-7 (AH-7) WEST SIDE		1		1		X																																	
19		CS-7 (AH-7) WEST SIDE		1		1		X																																	
20		CS-7 (AH-7) WEST SIDE		1		1		X																																	
21		CS-7 (AH-7) WEST SIDE		1		1		X																																	
22		CS-7 (AH-7) WEST SIDE		1		1		X																																	
23		CS-7 (AH-7) WEST SIDE		1		1		X																																	
24		CS-7 (AH-7) WEST SIDE		1		1		X																																	
25		CS-7 (AH-7) WEST SIDE		1		1		X																																	
26		CS-7 (AH-7) WEST SIDE		1		1		X																																	
27		CS-7 (AH-7) WEST SIDE		1		1		X																																	
28		CS-7 (AH-7) WEST SIDE		1		1		X																																	
29		CS-7 (AH-7) WEST SIDE		1		1		X																																	
30		CS-7 (AH-7) WEST SIDE		1		1		X																																	
31		CS-7 (AH-7) WEST SIDE		1		1		X																																	
32		CS-7 (AH-7) WEST SIDE		1		1		X																																	
33		CS-7 (AH-7) WEST SIDE		1		1		X																																	
34		CS-7 (AH-7) WEST SIDE		1		1		X																																	
35		CS-7 (AH-7) WEST SIDE		1		1		X																																	
36		CS-7 (AH-7) WEST SIDE		1		1		X																																	
37		CS-7 (AH-7) WEST SIDE		1		1		X																																	
38		CS-7 (AH-7) WEST SIDE		1		1		X																																	
39		CS-7 (AH-7) WEST SIDE		1		1		X																																	
40		CS-7 (AH-7) WEST SIDE		1		1		X																																	
41		CS-7 (AH-7) WEST SIDE		1		1		X																																	
42		CS-7 (AH-7) WEST SIDE		1		1		X																																	
43		CS-7 (AH-7) WEST SIDE		1		1		X																																	
44		CS-7 (AH-7) WEST SIDE		1		1		X																																	
45		CS-7 (AH-7) WEST SIDE		1		1		X																																	
46		CS-7 (AH-7) WEST SIDE		1		1		X																																	
47		CS-7 (AH-7) WEST SIDE		1		1		X																																	
48		CS-7 (AH-7) WEST SIDE		1		1		X																																	
49		CS-7 (AH-7) WEST SIDE		1		1		X																																	
50		CS-7 (AH-7) WEST SIDE		1		1		X																																	
51		CS-7 (AH-7) WEST SIDE		1		1		X																																	
52		CS-7 (AH-7) WEST SIDE		1		1		X																																	
53		CS-7 (AH-7) WEST SIDE		1		1		X																																	
54		CS-7 (AH-7) WEST SIDE		1		1		X																																	
55		CS-7 (AH-7) WEST SIDE		1		1		X																																	
56		CS-7 (AH-7) WEST SIDE		1		1		X																																	
57		CS-7 (AH-7) WEST SIDE		1		1		X																																	
58		CS-7 (AH-7) WEST SIDE		1		1		X																																	
59		CS-7 (AH-7) WEST SIDE		1		1		X																																	
60		CS-7 (AH-7) WEST SIDE		1		1		X																																	
61		CS-7 (AH-7) WEST SIDE		1		1		X																																	
62		CS-7 (AH-7) WEST SIDE		1		1		X																																	
63		CS-7 (AH-7) WEST SIDE		1		1		X																																	
64		CS-7 (AH-7) WEST SIDE		1		1		X																																	
65		CS-7 (AH-7) WEST SIDE		1		1		X																																	
66		CS-7 (AH-7) WEST SIDE		1		1		X																																	
67		CS-7 (AH-7) WEST SIDE		1		1		X																																	
68		CS-7 (AH-7) WEST SIDE		1		1		X																																	
69		CS-7 (AH-7) WEST SIDE		1		1		X																																	
70		CS-7 (AH-7) WEST SIDE		1		1		X																																	
71		CS-7 (AH-7) WEST SIDE		1		1		X																																	
72		CS-7 (AH-7) WEST SIDE		1		1		X																																	
73		CS-7 (AH-7) WEST SIDE		1		1		X																																	
74		CS-7 (AH-7) WEST SIDE		1		1		X																																	
75		CS-7 (AH-7) WEST SIDE		1		1		X																																	
76		CS-7 (AH-7) WEST SIDE		1		1		X																																	
77		CS-7 (AH-7) WEST SIDE		1		1		X																																	
78		CS-7 (AH-7) WEST SIDE		1		1		X																																	
79		CS-7 (AH-7) WEST SIDE		1		1		X																																	
80		CS-7 (AH-																																							





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

ANALYSIS REQUEST

Company Name:

Project Manager: TETRA TECH

Address:

City:

State:

Zip:

Phone #:

Fax #:

Project #:

Project Owner: VPR

Project Name: Henderson Fed Cor #1

Project Location: Las Co, NM

Sampler Name: Marcus Kyurech

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H3D2472

Section Hole 2'

11 CS-9 (AH-9)

12 CS-10 (AH-10)

13 CS-17 (AH-17)

14 CS-18 (AH-18)

15 CS-18 (AH-18)

16 CS-22 (AH-22)

17 CS-21 (AH-21)

18 CS-22 (AH-22)

19 CS-23 (AH-23)

20 CS-23 (AH-23)

21 CS-23 (AH-23)

22 CS-23 (AH-23)

23 CS-23 (AH-23)

24 CS-23 (AH-23)

25 CS-23 (AH-23)

26 CS-23 (AH-23)

27 CS-23 (AH-23)

28 CS-23 (AH-23)

29 CS-23 (AH-23)

30 CS-23 (AH-23)

31 CS-23 (AH-23)

32 CS-23 (AH-23)

33 CS-23 (AH-23)

34 CS-23 (AH-23)

35 CS-23 (AH-23)

36 CS-23 (AH-23)

37 CS-23 (AH-23)

38 CS-23 (AH-23)

39 CS-23 (AH-23)

40 CS-23 (AH-23)

41 CS-23 (AH-23)

42 CS-23 (AH-23)

43 CS-23 (AH-23)

44 CS-23 (AH-23)

45 CS-23 (AH-23)

46 CS-23 (AH-23)

47 CS-23 (AH-23)

48 CS-23 (AH-23)

49 CS-23 (AH-23)

50 CS-23 (AH-23)

51 CS-23 (AH-23)

52 CS-23 (AH-23)

53 CS-23 (AH-23)

54 CS-23 (AH-23)

55 CS-23 (AH-23)

56 CS-23 (AH-23)

57 CS-23 (AH-23)

58 CS-23 (AH-23)

59 CS-23 (AH-23)

60 CS-23 (AH-23)

61 CS-23 (AH-23)

62 CS-23 (AH-23)

63 CS-23 (AH-23)

64 CS-23 (AH-23)

65 CS-23 (AH-23)

66 CS-23 (AH-23)

67 CS-23 (AH-23)

68 CS-23 (AH-23)

69 CS-23 (AH-23)

70 CS-23 (AH-23)

71 CS-23 (AH-23)

72 CS-23 (AH-23)

73 CS-23 (AH-23)

74 CS-23 (AH-23)

75 CS-23 (AH-23)

76 CS-23 (AH-23)

77 CS-23 (AH-23)

78 CS-23 (AH-23)

79 CS-23 (AH-23)

80 CS-23 (AH-23)

81 CS-23 (AH-23)

82 CS-23 (AH-23)

83 CS-23 (AH-23)

84 CS-23 (AH-23)

85 CS-23 (AH-23)

86 CS-23 (AH-23)

87 CS-23 (AH-23)

88 CS-23 (AH-23)

89 CS-23 (AH-23)

90 CS-23 (AH-23)

91 CS-23 (AH-23)

92 CS-23 (AH-23)

93 CS-23 (AH-23)

94 CS-23 (AH-23)

95 CS-23 (AH-23)

96 CS-23 (AH-23)

97 CS-23 (AH-23)

98 CS-23 (AH-23)

99 CS-23 (AH-23)

100 CS-23 (AH-23)

101 CS-23 (AH-23)

102 CS-23 (AH-23)

103 CS-23 (AH-23)

104 CS-23 (AH-23)

105 CS-23 (AH-23)

106 CS-23 (AH-23)

107 CS-23 (AH-23)

108 CS-23 (AH-23)

109 CS-23 (AH-23)

110 CS-23 (AH-23)

111 CS-23 (AH-23)

112 CS-23 (AH-23)

113 CS-23 (AH-23)

114 CS-23 (AH-23)

115 CS-23 (AH-23)

116 CS-23 (AH-23)

117 CS-23 (AH-23)

118 CS-23 (AH-23)

119 CS-23 (AH-23)

120 CS-23 (AH-23)

121 CS-23 (AH-23)

122 CS-23 (AH-23)

123 CS-23 (AH-23)

124 CS-23 (AH-23)

125 CS-23 (AH-23)

126 CS-23 (AH-23)

127 CS-23 (AH-23)

128 CS-23 (AH-23)

129 CS-23 (AH-23)

130 CS-23 (AH-23)

131 CS-23 (AH-23)

132 CS-23 (AH-23)

133 CS-23 (AH-23)

134 CS-23 (AH-23)

135 CS-23 (AH-23)

136 CS-23 (AH-23)

137 CS-23 (AH-23)

138 CS-23 (AH-23)

139 CS-23 (AH-23)

140 CS-23 (AH-23)

141 CS-23 (AH-23)

142 CS-23 (AH-23)

143 CS-23 (AH-23)

144 CS-23 (AH-23)

145 CS-23 (AH-23)

146 CS-23 (AH-23)

147 CS-23 (AH-23)

148 CS-23 (AH-23)

149 CS-23 (AH-23)

150 CS-23 (AH-23)

151 CS-23 (AH-23)

152 CS-23 (AH-23)

153 CS-23 (AH-23)

154 CS-23 (AH-23)

155 CS-23 (AH-23)

156 CS-23 (AH-23)

157 CS-23 (AH-23)

158 CS-23 (AH-23)

159 CS-23 (AH-23)

160 CS-23 (AH-23)

161 CS-23 (AH-23)

162 CS-23 (AH-23)

163 CS-23 (AH-23)

164 CS-23 (AH-23)

165 CS-23 (AH-23)

166 CS-23 (AH-23)

167 CS-23 (AH-23)

168 CS-23 (AH-23)

169 CS-23 (AH-23)

170 CS-23 (AH-23)

171 CS-23 (AH-23)

172 CS-23 (AH-23)

173 CS-23 (AH-23)

174 CS-23 (AH-23)

175 CS-23 (AH-23)

176 CS-23 (AH-23)

177 CS-23 (AH-23)

178 CS-23 (AH-23)

179 CS-23 (AH-23)

180 CS-23 (AH-23)

181 CS-23 (AH-23)

182 CS-23 (AH-23)

183 CS-23 (AH-23)

184 CS-23 (AH-23)

185 CS-23 (AH-23)

186 CS-23 (AH-23)

187 CS-23 (AH-23)

188 CS-23 (AH-23)

189 CS-23 (AH-23)

190 CS-23 (AH-23)

191 CS-23 (AH-23)

192 CS-23 (AH-23)

193 CS-23 (AH-23)

194 CS-23 (AH-23)

195 CS-23 (AH-23)

196 CS-23 (AH-23)

197 CS-23 (AH-23)

198 CS-23 (AH-23)

199 CS-23 (AH-23)

200 CS-23 (AH-23)

201 CS-23 (AH-23)

202 CS-23 (AH-23)

203 CS-23 (AH-23)

204 CS-23 (AH-23)

205 CS-23 (AH-23)

206 CS-23 (AH-23)

207 CS-23 (AH-23)

208 CS-23 (AH-23)

209 CS-23 (AH-23)

210 CS-23 (AH-23)

211 CS-23 (AH-23)

212 CS-23 (AH-23)

213 CS-23 (AH-23)

214 CS-23 (AH-23)

215 CS-23 (AH-23)

216 CS-23 (AH-23)

217 CS-23 (AH-23)

218 CS-23 (AH-23)

219 CS-23 (AH-23)

220 CS-23 (AH-23)

221 CS-23 (AH-23)

222 CS-23 (AH-23)

223 CS-23 (AH-23)

224 CS-23 (AH-23)

225 CS-23 (AH-23)

226 CS-23 (AH-23)

227 CS-23 (AH-23)

228 CS-23 (AH-23)

229 CS-23 (AH-23)

230 CS-23 (AH-23)

231 CS-23 (AH-23)

232 CS-23 (AH-23)

233 CS-23 (AH-23)

234 CS-23 (AH-23)

235 CS-23 (AH-23)

236 CS-23 (AH-23)

237 CS-23 (AH-23)

238 CS-23 (AH-23)

239 CS-23 (AH-23)

240 CS-23 (AH-23)

241 CS-23 (AH-23)

242 CS-23 (AH-23)

243 CS-23 (AH-23)

244 CS-23 (AH-23)

245 CS-23 (AH-23)

246 CS-23 (AH-23)

247 CS-23 (AH-23)

248 CS-23 (AH-23)

249 CS-23 (AH-23)

250 CS-23 (AH-23)

251 CS-23 (AH-23)

252 CS-23 (AH-23)

253 CS-23 (AH-23)

254 CS-23 (AH-23)

255 CS-23 (AH-23)

256 CS-23 (AH-23)

257 CS-23 (AH-23)

258 CS-23 (AH-23)

259 CS-23 (AH-23)

October 16, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/15/13 8:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/15/2013  
Reported: 10/16/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/14/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-9 (AH-9) BOTTOM HOLE (H302485-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2013	ND	1.94	97.1	2.00	4.35	
Toluene*	<0.050	0.050	10/15/2013	ND	1.97	98.3	2.00	4.23	
Ethylbenzene*	<0.050	0.050	10/15/2013	ND	2.00	99.9	2.00	5.82	
Total Xylenes*	<0.150	0.150	10/15/2013	ND	5.82	97.0	6.00	4.78	
Total BTEX	<0.300	0.300	10/15/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.1 % 89.4-126

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	10/15/2013	ND	201	101	200	2.67	
DRO >C10-C28	12.8	10.0	10/15/2013	ND	191	95.7	200	3.23	

Surrogate: 1-Chlorooctane 79.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 78.7 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

October 16, 2013

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: HARRIER FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/16/13 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,



Caley D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

TETRA TECH  
IKE TAVAREZ  
1910 N. BIG SPRING STREET  
MIDLAND TX, 79705  
Fax To: (432) 682-3946

Received: 10/16/2013  
Reported: 10/16/2013  
Project Name: HARRIER FED COM #1  
Project Number: 112L05055  
Project Location: LEA COUNTY, NM

Sampling Date: 10/15/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CS-18 (AH-18) BOTTOM HOLE 3' (H302501-01)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2013	ND	1.90	95.1	2.00	1.49	
Toluene*	<b>0.724</b>	0.050	10/16/2013	ND	1.97	98.5	2.00	1.87	
Ethylbenzene*	<b>1.80</b>	0.050	10/16/2013	ND	2.00	100	2.00	1.58	
Total Xylenes*	<b>11.8</b>	0.150	10/16/2013	ND	5.96	99.4	6.00	1.35	
Total BTEX	<b>14.3</b>	0.300	10/16/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<b>132</b>	10.0	10/16/2013	ND	192	96.1	200	6.02	
DRO >C10-C28	<b>996</b>	10.0	10/16/2013	ND	189	94.7	200	9.52	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TETRA TECH  
 IKE TAVAREZ  
 1910 N. BIG SPRING STREET  
 MIDLAND TX, 79705  
 Fax To: (432) 682-3946

 Received: 10/16/2013  
 Reported: 10/16/2013  
 Project Name: HARRIER FED COM #1  
 Project Number: 112L05055  
 Project Location: LEA COUNTY, NM

 Sampling Date: 10/15/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: CS-21 (AH-21) BOTTOM HOLE 3' (H302501-02)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2013	ND	1.90	95.1	2.00	1.49	
Toluene*	<0.050	0.050	10/16/2013	ND	1.97	98.5	2.00	1.87	
Ethylbenzene*	0.090	0.050	10/16/2013	ND	2.00	100	2.00	1.58	
Total Xylenes*	0.451	0.150	10/16/2013	ND	5.96	99.4	6.00	1.35	
Total BTEX	0.541	0.300	10/16/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 122 % 89.4-126

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	10/16/2013	ND	192	96.1	200	6.02	
DRO >C10-C28	163	10.0	10/16/2013	ND	189	94.7	200	9.52	

Surrogate: 1-Chlorooctane 96.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

---

**Cardinal Laboratories**

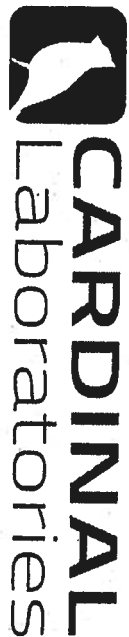
\*=Accredited Analyte

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



---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

ANALYSIS REQUEST

Company Name: TETRA TECH

Project Manager: The TAVAREZ

Address: 4601 N. Big Spring St.

City: Midland State: TX Zip: 79705

Phone #: 432-682-4555 Fax #:

Project #: 11205055 Project Owner: VPA

Project Name: HARKER Fed Res #1

Project Location: LEA Co NM

Sample Name: MARCUS KUSTASHKI

FOR LAB USE ONLY

Lab I.D. Sample I.D.

H302501

1 CS-18 (AH-18) Hole 3  
2 CS-21 (AH-21) Hole 3

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

PLEASE NOTE: Liability and Damages. Cardinal's liability and damage exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date:

Time:

Signature:

Received By:

Date:

Time:

Signature:

Relinquished By:

Date:

Time:

Signature:

Received By:

Date:

Time:

Signature:

Delivered By: (Circle One)

Sample Condition

Cool ☒ Intact ☒

Pres ☒ No ☒

Checked By: (Initials)

Signature:

Phone Result: ☐ Yes ☐ No ☐ Add'l Phone #:

Fax Result: ☐ Yes ☐ No ☐ Add'l Fax #:

REMARKS: email results

ike.tavarez@tetra.tech.com

marcus.kustashki@tetra.tech.com

Rush!!!

\* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2476

Page 5 of 5