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Final Closure Report

**Grizzly Operating, LLC
Abo Pump Station B-6
Lea County, New Mexico
Unit Letter "B", Section 6, Township 17 South, Range 37 East
Latitude 32.86986 North, Longitude 103.289134 West
NMOCD Incident # nOY1814332779
1RP-5073**

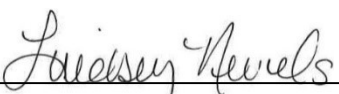
Prepared For:

Grizzly Operating, LLC
4001 Penbrook, Suite 201
Odessa, TX 79762

Prepared By:

Hungry Horse, LLC
4024 Plains Hwy
Lovington, NM 88260

September 2020


Lindsey Nevels
Project Manager


Daniel Dominguez
Sr. Project Manager

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HUNGRY HORSE, LLC

The following *Final Closure Report* serves as a condensed update on field activities undertaken at the above referenced site which was delineated prior to, and remediated after, the August 2018 rule replacement.

Background:

The site is located in Unit Letter B (NW/NE), Section 6, Township 17 South, Range 37 East, approximately 6 miles southeast of Lovington, in Lea County, New Mexico. The property is owned by Robert C. Rice. Topographic Map, OSE POD Locations Map, and USGS Well Locations Map are included as Figure 1, Figure 2, and Figure 3, respectively.

The release occurred on an active tank battery; latitude 32.86985 North, Longitude 103.28910 West. The initial NMOCD Form C-141 indicates that on May 15, 2018 a plug in a tee located on the suction line going to the pump came loose allowing an unknown amount of produced water to spill inside of the containment. The tank was isolated and the line was repaired. The fluid spread out to an area measuring approximately 10,566 sq. ft. A vacuum truck was dispersed recovering approximately 115bbls. Previously submitted Initial NMOCD Form C-141 is available on the NMOCD Imaging System. The NMOCD Form C-141 Closure page is included as Attachment IV.

Vanguard Operating then requested White Buffalo Environmental conduct a site assessment, vertical and horizontal sampling, and prepare a Remediation Plan.

NMOCD Site Classification:

A search of the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) groundwater databases was completed in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Approximate depth to groundwater was determined using maintained and published water well data. Karst mapping indicates the site is not located in a Karst designated area. Depth to groundwater information is provided as Attachment II and the results are depicted on Figures 2 & 3.

Utilizing this information, the NMOCD Closure Criteria for the Site were determined as follows:

Depth to Groundwater	Constituent	Method	Limit
51' – 100'	Chloride	EPA 300.0 or SM4500 CLB	10,000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Methods 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Methods 8021B or 8260B	10 mg/kg



Regulatory Approval:

On September 4, 2018, a Remediation Plan was submitted to the NMOCD. The report proposed a remediation strategy designed to progress the site toward approved closure. The Remediation Plan was approved on October 7, 2018 and is available on the NMOCD imaging system.

Please refer to the Remediation Plan for details regarding the site and proposed remediation activities.

Remediation Activities:

On November 19, 2019, remediation activities commenced on location. In accordance with the approved work plan, impacted soil was excavated to approximately two (2) feet bgs. Excavated soil was stockpiled on site, then transported to an NMOCD approved disposal facility.

The approved remediation plan states that all closure samples would be collected at the same locations as the delineation samples. As the final closure samples had not yet been collected, on September 11, 2020, Hungry Horse personnel mobilized on site to collect the final closure samples. These samples were collected via hand auger at two (2) feet bgs. A total of twelve (12) closure samples, BH1 – BH12, and six (6) horizontal samples, SW1 – SW6, were collected, jarred, and sent to the lab for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria for each of the submitted samples.

An Excavation Area Map is provided as Figure 4, a Summary of Soil Sample Laboratory Analytical Results is provided as Table 1, and Laboratory Analytical Reports are provided as Attachment III.

The final dimensions of the excavated area were approximately 164 ft in length, ranged from 40 ft to 76 ft in width, and 2 ft in depth. During remediation activities approximately 800 cubic yards of impacted soil were hauled to an NMOCD approved disposal facility.

Restoration, Reclamation, and Re-Vegetation:

The excavation was backfilled with clean, non-impacted, like material and replaced to the near original relative positions. The affected areas were contoured to achieve erosion control and preserve surface water flow. And as the release occurred on an active well pad, no seeding will be required.

Closure Request:

Remediation activities were conducted in accordance with the NMOCD approved Remediation Plan, and applicable NMOCD Regulations. Excavated soil was hauled to an NMOCD approved



facility for disposal. Laboratory analytical results from soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria.

Based on laboratory analytical results and field activities conducted to date, Hungry Horse recommends Grizzly Operating, LLC provide copies of this *Final Closure Report* to the appropriate agencies and request closure be granted to the Abo Pump Station B-6.

Limitations:

Hungry Horse, LLC, has prepared this Final Closure Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Hungry Horse has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Hungry Horse has not conducted an independent examination of the facts contained in referenced materials and statements. Hungry Horse has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Hungry Horse notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.



Distribution:

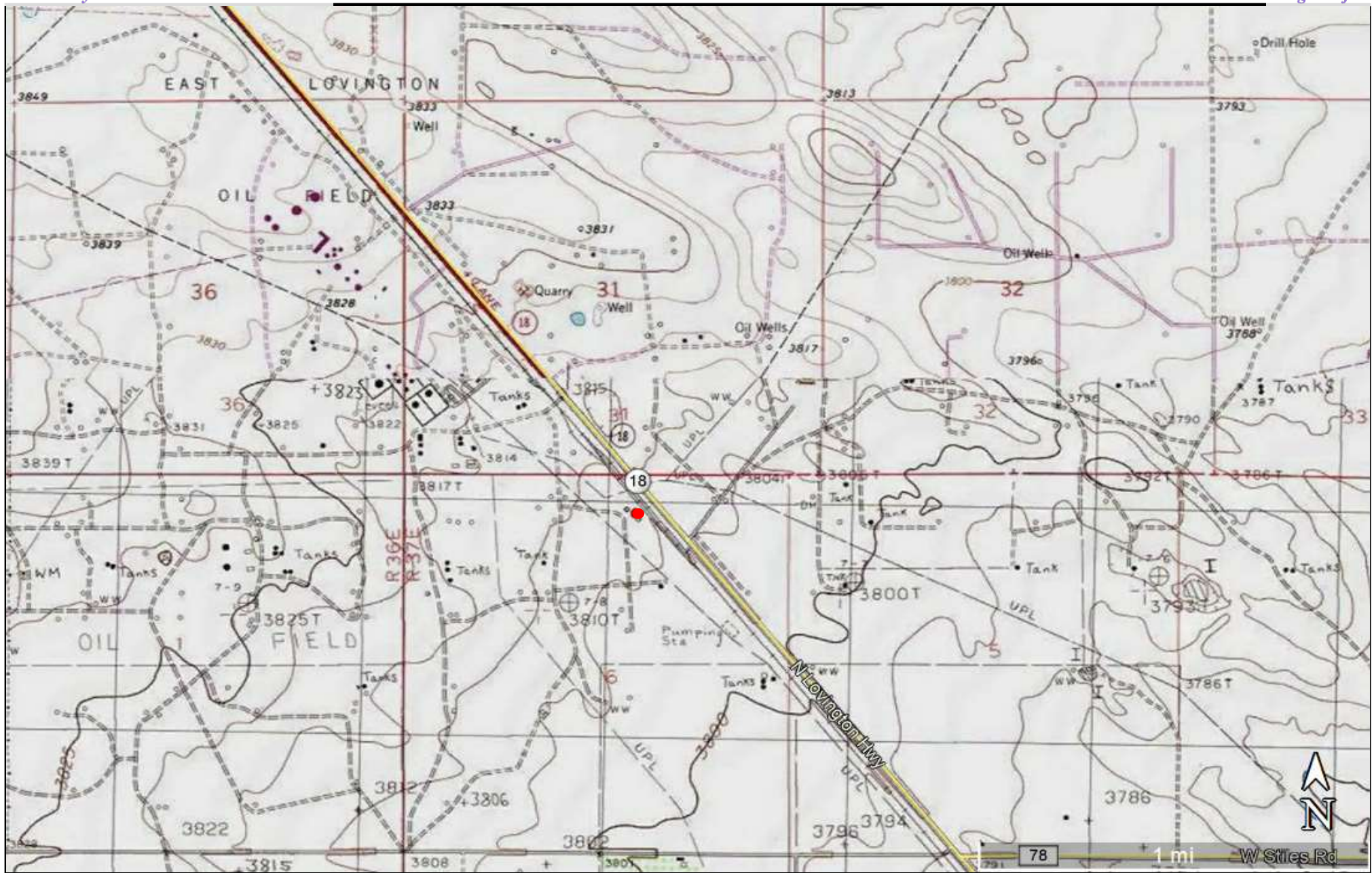
Grizzly Operating, LLC

4001 Penbrook, Suite 201
Odessa, TX 79762

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, NM 88240

Figures

**Figure 1**

Topographic Map
 Grizzly Operating, LLC
 Abo Pump Station B-6
 GPS: 32.86986, -103.289134
 Lea County

Legend:

- Abo Pump Station B-6 Location

Drafted: dd
 Checked: Imn
 Date: 7/21/20



**Figure 2**

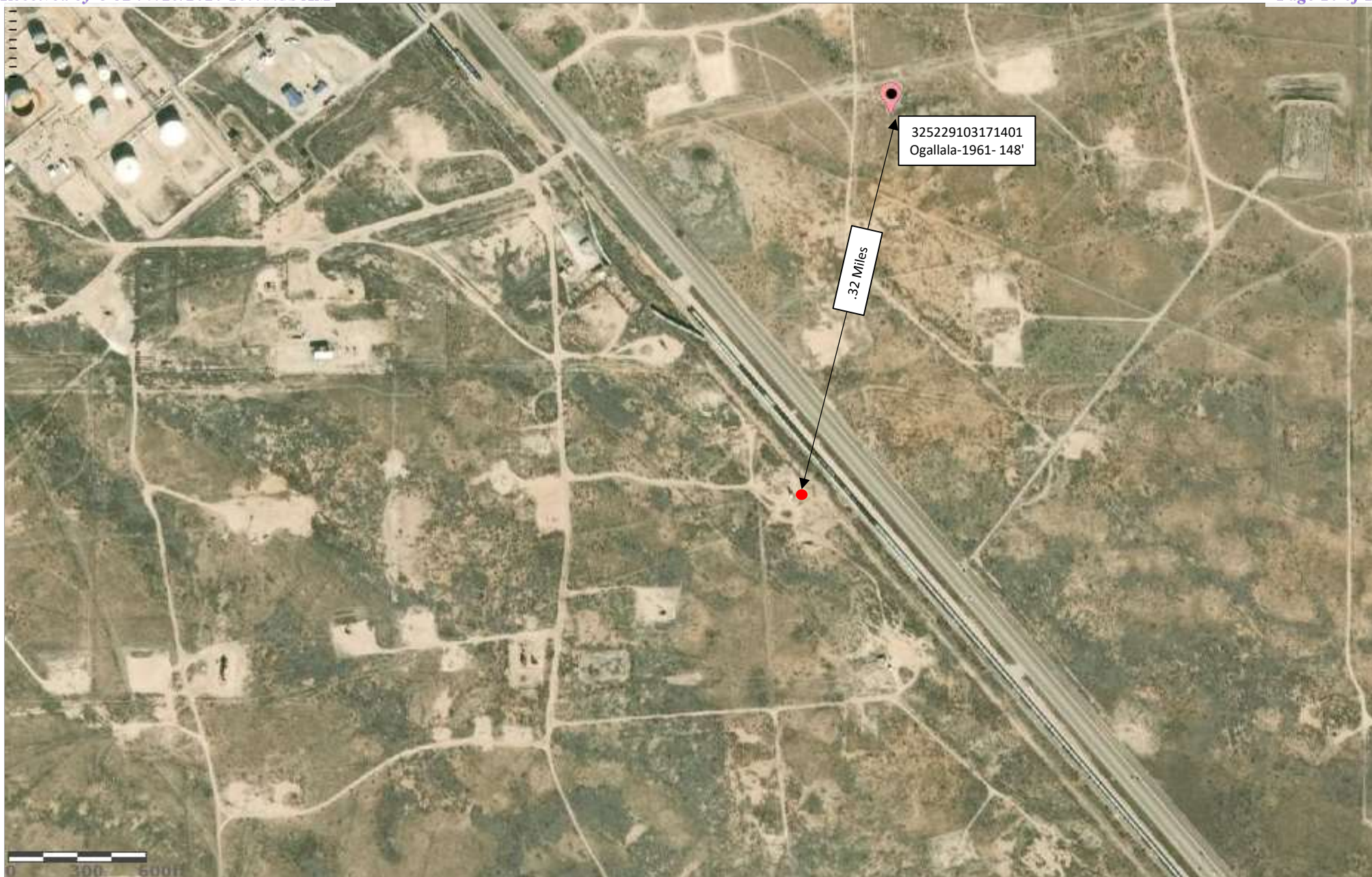
OSE POD Locations Map
 Grizzly Operating, LLC
 Abo Pump Station B-6
 GPS: 32.86986, -103.289134
 Lea County

Legend:

- Abo Pump Station B-6 Location
- OSE Pending Well
- OSE Active Well
- OSE Plugged Well

Drafted: dd
 Checked: Imn
 Date: 7/21/20



**Figure 3**

USGS Well Locations Map
Grizzly Operating, LLC
Abo Pump Station B-6
GPS: 32.86986, -103.289134
Lea County

Legend:

- Abo Pump Station B-6 Location
- USGS Well Location

Drafted: dd
Checked: Imn
Date: 7/21/20



**Figure 4**

Excavation Sample Location Map
 Grizzly Operating, LLC
 Abo Pump Station B-6
 GPS: 32.86986, -103.289134
 Lea County

Legend:

- BH1 Closure Sample Location
 Excavated Area

Drafted: lmn
 Checked: dd
 Date: 9/11/20



Tables

TABLE 1
Summary of Soil Sample Laboratory Analytical Results
Grizzly Operating, LLC
Abo Pump Station B-6
NMOCD Ref. #: nOY1814332779

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SP1	6/14/18	24	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SP2	5/30/18	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SP3	5/30/18	6	In-Situ	<0.050	<0.300	<10.0	91.7	91.7	28.9	120.6	352
SP4	5/30/18	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
SP5	6/14/18	14	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
SP6	5/30/18	28	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560
SP7	6/14/18	40	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
SP8	6/14/18	10	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
SP9	6/14/18	10	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
SP10	6/14/18	28	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608
SP11	6/14/18	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
SP12	6/14/18	8	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
SW1	6/14/18	10	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	528
SW2	5/30/18	4	In-Situ	<0.050	<0.300	<10.0	10	10	<10.0	10	256
SW3	5/30/18	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
SW4	5/30/18	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SW5	6/14/18	20	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
SW6	6/14/18	80	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	624
Comp Mix	12/4/19	Surf	In-Situ	ND	ND	ND	106	106	70.9	176.9	1,270
SW1	12/4/19	Surf	In-Situ	ND	ND	ND	30.4	30.4	ND	30.4	1,280
SW2	12/4/19	Surf	In-Situ	ND	ND	ND	62	62	50	110	1,970
SW3	12/4/19	Surf	In-Situ	ND	ND	ND	287	287	203	490	4,240
SW4	12/4/19	Surf	In-Situ	ND	ND	ND	253	253	172	425	2,050
BH1	9/11/20	2	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,020
BH2	9/11/20	2	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,160
BH3	9/11/20	2	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,140
BH4	9/11/20	2	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,120
BH5	9/11/20	2	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	982
BH6	9/11/20	2	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	782
BH7	9/11/20	2	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,130
BH8	9/11/20	2	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	4,880
BH9	9/11/20	2	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	93
BH10	9/11/20	2	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	769
BH11	9/11/20	2	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	1,040
BH12	9/11/20	2	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	903
SW1	9/11/20	2	In-Situ	<0.00201	<0.00201	<50.0	127	127	<50.0	127	542
SW2	9/11/20	2	In-Situ	<0.00200	<0.00200	<50.0	130	130	<50.0	130	500
SW3	9/11/20	2	In-Situ	<0.00199	<0.00199	<50.0	133	133	<50.0	133	462
SW4	9/11/20	2	In-Situ	<0.00198	<0.00198	<49.9	161	161	53.3	214	496
SW5	9/11/20	2	In-Situ	<0.00199	<0.00199	<49.8	98.1	98.1	<49.8	98.1	463
SW6	9/11/20	2	In-Situ	<0.00198	<0.00198	<49.9	74.7	74.7	<49.9	74.7	502
NMOCD Closure Criteria				10	50	-	-	-	-	2,500	10,000

NOTES:


- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Attachment I Site Photographs

Photographs

Photo 1	
Direction West	
Description Lease sign	

Photo 2	
Direction Northwest	
Description Remediation activities	

Photographs

Photo 3	
Direction Northwest	
Description Remediation activities	

Photo 4	
Direction North	
Description Remediation activities	


Photographs

Photo 5	
Direction Northwest	
Description Remediation activities	

Photo 6	
Direction South	
Description Remediation activities	

Photographs

Photo 7	
Direction North	
Description Backfilled - area had been sprayed for weed control	

Photo 8	
Direction Northwest	
Description Backfilled - area had been sprayed for weed control	

Attachment II

Depth to Groundwater Information



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
L_13414 POD5		L	LE	4	1	2	06	17S	37E	660218	3637979	233	110	93	17
L_01435		L	LE	3	3	4	31	16S	37E	660110	3638415*	261	120	50	70
L_13414 POD1		L	LE	4	1	2	06	17S	37E	660176	3637917	263	110	93	17
L_13038 POD1		L	LE	4	1	2	06	17S	37E	660223	3637928	276	115		
L_13414 POD3		L	LE	2	3	2	06	17S	37E	660143	3637890	277	110	93	17
L_13414 POD2		L	LE	4	1	2	06	17S	37E	660194	3637900	286	102	93	9
L_13038 POD4		L	LE	2	3	2	06	17S	37E	660120	3637865	296	120		
L_13038 POD2		L	LE	2	3	2	06	17S	37E	660146	3637865	301	115		
L_13038 POD3		L	LE	2	3	2	06	17S	37E	660146	3637865	301	115		
L_01604 POD1		L	LE	1	2	2	06	17S	37E	660397	3638214*	335	105		
L_13414 POD4		L	LE	2	3	2	06	17S	37E	660248	3637870	339	110	93	17
L_10652		L	LE		4	3	31	16S	37E	659808	3638511*	438	248	72	176
L_05458		L	LE	1	4	4	31	16S	37E	660512	3638620*	642	240	50	190
L_02078		L	LE		4	4	31	16S	37E	660613	3638521*	657	112	50	62
L_14377 POD4		L	LE	2	3	3	31	16S	37E	659492	3638571	708	120		
L_14377 POD2		L	LE	2	3	3	31	16S	37E	659504	3638600	715	120		
L_01107 POD1		L	LE	1	1	1	05	17S	37E	660800	3638218*	736	92	38	54
L_14377 POD1		L	LE	2	3	3	31	16S	37E	659484	3638621	744	118		
L_00449		L	LE	1	1	4	06	17S	37E	660008	3637404*	755	100	70	30
L_00449 POD5		L	LE	1	1	4	06	17S	37E	660008	3637404*	755	247	101	146
L_00449 POD5	R	L	LE	1	1	4	06	17S	37E	660008	3637404*	755	247	101	146
L_14377 POD3		L	LE	2	3	3	31	16S	37E	659423	3638586	773	115		
L_01220 POD1		L	LE		3	3	31	16S	37E	659311	3638504*	830	120	55	65
L_01398		L	LE		1	1	05	17S	37E	660901	3638119*	835	115	50	65
L_01719		L	LE	2	2	3	31	16S	37E	659901	3639011*	869	148	104	44
L_01719	R	L	LE	2	2	3	31	16S	37E	659901	3639011*	869	148	104	44

Average Depth to Water: 77 feet

Minimum Depth: 38 feet

Maximum Depth: 104 feet

Record Count: 26

UTM NAD83 Radius Search (in meters):

Easting (X): 660066

Northing (Y): 3638157

Radius: 880

*UTM location was derived from PLSS - see Help

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

9/11/20 10:17 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	L 01435	3	3	4	31	16S	37E	660110	3638415*
<hr/>									
Driller License: 46		Driller Company: ABBOTT BROTHERS COMPANY							
Driller Name:									
Drill Start Date: 04/26/1952		Drill Finish Date:		04/27/1952		Plug Date:		04/20/1953	
Log File Date: 05/01/1952		PCW Rev Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size: 7.00		Depth Well:		120 feet		Depth Water:		50 feet	
<hr/>									
Water Bearing Stratifications:		Top	Bottom	Description					
		50	120	Sandstone/Gravel/Conglomerate					
<hr/>									
Casing Perforations:		Top	Bottom						
		90	120						
<hr/>									

*UTM location was derived from PLSS - see Help

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


9/11/20 1:35 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)			
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
L	01604	POD1	1	2	2	06	17S	37E	660397 3638214* 

X

Driller License:	111	Driller Company:	BURKE, EDWARD B.						
Driller Name:	BURKE, EDWARD B.								
Drill Start Date:	10/27/1952	Drill Finish Date:	10/27/1952			Plug Date:	10/20/1954		
Log File Date:	10/22/1953	PCW Rev Date:	10/22/1953			Source:	Shallow		
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:	7.00	Depth Well:	105 feet			Depth Water:			

X

Water Bearing Stratifications:		Top	Bottom	Description
		54	105	Sandstone/Gravel/Conglomerate

*UTM location was derived from PLSS - see Help

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

9/11/20 1:35 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: L 02478 **Subbasin:** L **Cross Reference:** -
Primary Purpose: IRR IRRIGATION
Primary Status: CAN CANCELLED
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: JACK CAYTON

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
508153	APPRO	1954-04-21	CAN	FIN	L 02478	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q		X	Y	Other Location Desc
			64Q16Q4Sec	Tws Rng			
L 02478			2 06 17S 37E	660303 3637909*			

(NAD83 UTM in meters)

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number
02/03/1954	CAN	0	0	L 02478

Place of Use

Q Q		Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256 64 Q16 Q4Sec	Tws Rng							
2 06 17S 37E		0	0		IRR	02/03/1954	CAN	

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	0		IRR	02/03/1954	GW

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

9/11/20 1:39 PM

WATER RIGHT
SUMMARY



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: L 13038 **Subbasin:** L **Cross Reference:** -
Primary Purpose: MON MONITORING WELL
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Agent: STRAUB CORPORATION
Contact: RAYMOND L. STRAUB JR., P.G.
Owner: PLAINS ALL AMERICAN PIPELINE
Contact: JEFFREY DAN

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
	505407	EXPL	2012-06-11	PMT	LOG	L 13038 PODS1-4	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q					(NAD83 UTM in meters)		Other Location Desc
			64Q	16Q	4Sec	Tws	Rng	X	Y	
L 13038 POD1		Shallow	4	1	2	06	17S 37E	660223	3637928	UNIT LETTER G - MW-9A
L 13038 POD2		Shallow	2	3	2	06	17S 37E	660146	3637865	UNIT LETTER G - MW-10A
L 13038 POD3		Shallow	2	3	2	06	17S 37E	660146	3637865	UNIT LETTER G - MW-13A
L 13038 POD4		Shallow	2	3	2	06	17S 37E	660120	3637865	UNIT LETTER G - MW-14A

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

9/11/20 1:38 PM

WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)					
		(quarters are smallest to largest)		(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec Tws Rng	X	Y
L	13414 POD5	4	1	2	06 17S 37E	660218	3637979
<hr/>							
Driller License: 1575		Driller Company: CURRIE DRILLING COMPANY, INC					
Driller Name: CURRIE, SHANE							
Drill Start Date: 12/03/2013		Drill Finish Date: 12/03/2013		Plug Date:			
Log File Date: 03/21/2014		PCW Rev Date:		Source: Shallow			
Pump Type:		Pipe Discharge Size:		Estimated Yield:			
Casing Size: 2.00		Depth Well: 110 feet		Depth Water: 93 feet			
<hr/>							
Water Bearing Stratifications:		Top	Bottom	Description			
		93	110	Other/Unknown			
<hr/>							
Casing Perforations:		Top	Bottom				
		83	110				
<hr/>							

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9/18/20 1:53 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)








WR File Number: L 14121 **Subbasin:** L **Cross Reference:** -
Primary Purpose: MON MONITORING WELL
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Agent: PLAINS PIPELINE LP
Contact: ALAN IZARD

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
get images	587501	EXPL 2016-05-19	PMT	APR	L 14121 POD1-7	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q					X	Y	Other Location Desc	
			64	Q16	Q4	Sec	Tws				Rng
L 14121 POD1			4	1	2	06	17S	37E	660116	3637923	 MW-15A
L 14121 POD2			4	1	2	06	17S	37E	660116	3637951	 MW-16A
L 14121 POD3			4	1	2	06	17S	37E	660126	3637979	 MW-17A
L 14121 POD4			4	1	2	06	17S	37E	660196	3637999	 MW-20
L 14121 POD5			4	1	2	06	17S	37E	660254	3637916	 MW-21
L 14121 POD6			2	3	2	06	17S	37E	660179	3637881	 MW-5A
L 14121 POD7			2	3	2	06	17S	37E	660181	3637912	 MW-19

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9/11/20 1:36 PM

WATER RIGHT SUMMARY



National Water Information System: Web Interface

USGS Water Resources

[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)Data Category: Groundwater Geographic Area: United States

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- **NOTICE 09-08-2020: The [NWIS Mapper](#) is experiencing intermittent issues. Developers are looking into the problem. Thank you for your patience.**
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 325229103171401

Minimum number of levels = 1

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

USGS 325229103171401 16S.37E.31.322244

Lea County, New Mexico

Latitude 32°52'29", Longitude 103°17'14" NAD27

Land-surface elevation 3,811 feet above NAVD88

The depth of the well is 148 feet below land surface.

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

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1961-02-17		D	41.41			2		U			A
1966-02-24		D	46.23			2		U			A
1971-02-17		D	55.88			2		U			A
1976-03-17		D	61.93			2		U			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: [https://nwis.waterdata.usgs.gov/nwis/gwlevels?](https://nwis.waterdata.usgs.gov/nwis/gwlevels?site_no=325229103171401&agency_cd=USGS&format=html)Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-09-11 14:56:20 EDT

0.26 0.24 nadww01



Attachment III

Laboratory Analytical Reports



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

June 11, 2018

NATALIE GLADDEN

WHITE BUFFALO

8908 YALE AVE #210

TULSA, OK 74137

RE: ABO PUMP STATION

Enclosed are the results of analyses for samples received by the laboratory on 06/05/18 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW2 - 4' (H801526-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2018	ND	2.06	103	2.00	0.251	
Toluene*	<0.050	0.050	06/06/2018	ND	2.06	103	2.00	0.602	
Ethylbenzene*	<0.050	0.050	06/06/2018	ND	2.09	104	2.00	0.846	
Total Xylenes*	<0.150	0.150	06/06/2018	ND	6.49	108	6.00	0.729	
Total BTX	<0.300	0.300	06/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/06/2018	ND	464	116	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	209	105	200	0.669	
DRO >C10-C28*	10.0	10.0	06/05/2018	ND	226	113	200	0.0120	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					

Surrogate: 1-Chlorooctane 86.3 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW3 - 2' (H801526-02)

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	06/06/2018	ND	2.06	103	2.00	0.251		
Toluene*	<0.050	0.050	06/06/2018	ND	2.06	103	2.00	0.602		
Ethylbenzene*	<0.050	0.050	06/06/2018	ND	2.09	104	2.00	0.846		
Total Xylenes*	<0.150	0.150	06/06/2018	ND	6.49	108	6.00	0.729		
Total BTEx	<0.300	0.300	06/06/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	06/06/2018	ND	464	116	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	209	105	200	0.669	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	226	113	200	0.0120	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW4 - 6' (H801526-03)

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	06/07/2018	ND	2.03	101	2.00	2.79	
Toluene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	1.82	
Ethylbenzene*	<0.050	0.050	06/07/2018	ND	2.05	103	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/07/2018	ND	6.40	107	6.00	1.86	
Total BTEx	<0.300	0.300	06/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	06/06/2018	ND	464	116	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	209	105	200	0.669	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	226	113	200	0.0120	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					

Surrogate: 1-Chlorooctane 91.3 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP2 - 6' (H801526-04)

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	06/07/2018	ND	2.03	101	2.00	2.79	
Toluene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	1.82	
Ethylbenzene*	<0.050	0.050	06/07/2018	ND	2.05	103	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/07/2018	ND	6.40	107	6.00	1.86	
Total BTEx	<0.300	0.300	06/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/06/2018	ND	464	116	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2018	ND	209	105	200	0.669	
DRO >C10-C28*	<10.0	10.0	06/05/2018	ND	226	113	200	0.0120	
EXT DRO >C28-C36	<10.0	10.0	06/05/2018	ND					

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP3 - 6' (H801526-05)

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	06/07/2018	ND	2.03	101	2.00	2.79	
Toluene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	1.82	
Ethylbenzene*	<0.050	0.050	06/07/2018	ND	2.05	103	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/07/2018	ND	6.40	107	6.00	1.86	
Total BTEx	<0.300	0.300	06/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/06/2018	ND	464	116	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2018	ND	160	80.0	200	13.9	
DRO >C10-C28*	91.7	10.0	06/06/2018	ND	166	83.0	200	14.0	
EXT DRO >C28-C36	28.9	10.0	06/06/2018	ND					

Surrogate: 1-Chlorooctane 87.3 % 41-142

Surrogate: 1-Chlorooctadecane 89.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/30/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP4 - 6' (H801526-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	2.79	
Toluene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	1.82	
Ethylbenzene*	<0.050	0.050	06/07/2018	ND	2.05	103	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/07/2018	ND	6.40	107	6.00	1.86	
Total BTX	<0.300	0.300	06/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	06/06/2018	ND	464	116	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2018	ND	160	80.0	200	13.9	
DRO >C10-C28*	<10.0	10.0	06/06/2018	ND	166	83.0	200	14.0	
EXT DRO >C28-C36	<10.0	10.0	06/06/2018	ND					

Surrogate: 1-Chlorooctane 90.0 % 41-142

Surrogate: 1-Chlorooctadecane 86.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/05/2018
 Reported: 06/11/2018
 Project Name: ABO PUMP STATION
 Project Number: B-6
 Project Location: NONE GIVEN

Sampling Date: 05/31/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP6 - 28' (H801526-07)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	2.79	
Toluene*	<0.050	0.050	06/07/2018	ND	2.03	101	2.00	1.82	
Ethylbenzene*	<0.050	0.050	06/07/2018	ND	2.05	103	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/07/2018	ND	6.40	107	6.00	1.86	
Total BTX	<0.300	0.300	06/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	06/06/2018	ND	464	116	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2018	ND	160	80.0	200	13.9	
DRO >C10-C28*	<10.0	10.0	06/06/2018	ND	166	83.0	200	14.0	
EXT DRO >C28-C36	<10.0	10.0	06/06/2018	ND					

Surrogate: 1-Chlorooctane 97.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

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

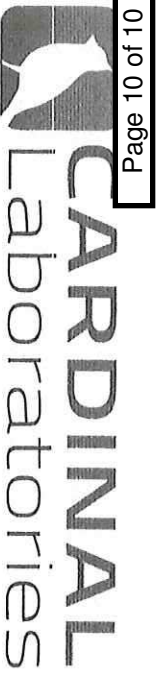
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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Waguard Operating</u>		P.O. # <u>White Buffalo</u>	
Project Manager: <u>John Terry</u>		Company: <u>White Buffalo</u>	
Address: <u>Univis</u>		Attn: <u>Steven Metcalfe</u>	
City: <u>Univis</u> State: <u>UM</u> Zip: <u>88231</u>		Address: <u>5908 Yale Ave #210</u>	
Phone #: _____ Fax #: _____		City: <u>Univis</u>	
Project #: _____ Project Owner: _____		State: <u>OK</u> Zip: <u>74157</u>	
Project Location: <u>ABO Pump Station B-16</u>		Phone #: <u>918-1460-0999</u>	
Sampler Name: <u>Margie Nieto</u>		Fax #: _____	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chloride	B-Tex	TPH (GRO, PRO, MRO)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
4801526	SW2-4'	G	1	X						5-30	14:28	X	X	X
	SW3-2'	G	1	X						5-30	14:20	X	X	X
	SW4-6'	G	1	X						5-30	11:54	X	X	X
	SP2-6'	G	1	X						5-30	08:22	X	X	X
	SP3-6'	G	1	X						5-30	15:35	X	X	X
	SP4-6'	G	1	X						5-30	14:54	X	X	X
	SP6-28'	G	1	X						5-31	11:27	X	X	X

Relinquished By: _____	Date: <u>8-5-18</u>	Received By: _____	Date: <u>9-05</u>
Relinquished By: _____	Time: _____	Received By: _____	Time: _____

Delivered By: (Circle One) <u>0.88</u>	Sample Condition	CHECKED BY: _____
Sampler - UPS - Bus - Other: <u>Consented 0.155</u>	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Initials)
	Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>VE #15</u>

REMARKS:
Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:

Email: Cabatal-Montano@whitebuffalo.com
Natalie.Cabatal@whitebuffalo.com



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

June 27, 2018

NATALIE GLADDEN
WHITE BUFFALO
8908 YALE AVE #210
TULSA, OK 74137

RE: ABO PWS B-6

Enclosed are the results of analyses for samples received by the laboratory on 06/21/18 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP1 - 24' (H801704-01)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3		
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2		
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6		
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3		
Total BTX	<0.300	0.300	06/22/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	06/25/2018	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 81.6 % 41-142

Surrogate: 1-Chlorooctadecane 84.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP5 - 14' (H801704-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3	
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2	
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6	
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3	
Total BTX	<0.300	0.300	06/22/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 78.6 % 41-142

Surrogate: 1-Chlorooctadecane 81.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP7 - 40' (H801704-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3	
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2	
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6	
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3	
Total BTX	<0.300	0.300	06/22/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 74.9 % 41-142

Surrogate: 1-Chlorooctadecane 75.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP8 - 10' (H801704-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3	
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2	
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6	
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3	
Total BTX	<0.300	0.300	06/22/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 87.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP9 - 10' (H801704-05)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3		
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2		
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6		
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3		
Total BTX	<0.300	0.300	06/22/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 83.8 % 41-142

Surrogate: 1-Chlorooctadecane 85.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP10 - 28' (H801704-06)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3		
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2		
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6		
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3		
Total BTX	<0.300	0.300	06/22/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 84.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.5 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP11 - 6' (H801704-07)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	12.3	
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2	
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6	
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3	
Total BTX	<0.300	0.300	06/22/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 88.2 % 41-142

Surrogate: 1-Chlorooctadecane 90.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP12 - 8' (H801704-08)

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	06/22/2018	ND	1.79	89.4	2.00	12.3	
Toluene*	<0.050	0.050	06/22/2018	ND	1.80	89.8	2.00	13.2	
Ethylbenzene*	<0.050	0.050	06/22/2018	ND	1.79	89.4	2.00	13.6	
Total Xylenes*	<0.150	0.150	06/22/2018	ND	5.21	86.8	6.00	13.3	
Total BTEX	<0.300	0.300	06/22/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/21/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/21/2018	ND					

Surrogate: 1-Chlorooctane 82.2 % 41-142

Surrogate: 1-Chlorooctadecane 86.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW1 - 10' (H801704-09)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2018	ND	1.62	81.1	2.00	0.0677	
Toluene*	<0.050	0.050	06/23/2018	ND	1.62	80.8	2.00	0.921	
Ethylbenzene*	<0.050	0.050	06/23/2018	ND	1.59	79.3	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/23/2018	ND	4.94	82.3	6.00	1.07	
Total BTX	<0.300	0.300	06/23/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/22/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/22/2018	ND					

Surrogate: 1-Chlorooctane 88.5 % 41-142

Surrogate: 1-Chlorooctadecane 88.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW5 - 20' (H801704-10)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2018	ND	1.62	81.1	2.00	0.0677	
Toluene*	<0.050	0.050	06/23/2018	ND	1.62	80.8	2.00	0.921	
Ethylbenzene*	<0.050	0.050	06/23/2018	ND	1.59	79.3	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/23/2018	ND	4.94	82.3	6.00	1.07	
Total BTX	<0.300	0.300	06/23/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2018	ND	187	93.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/22/2018	ND	206	103	200	1.68	
EXT DRO >C28-C36	<10.0	10.0	06/22/2018	ND					

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 87.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

WHITE BUFFALO
 NATALIE GLADDEN
 8908 YALE AVE #210
 TULSA OK, 74137
 Fax To:

Received: 06/21/2018
 Reported: 06/27/2018
 Project Name: ABO PWS B-6
 Project Number: NOT GIVEN
 Project Location: NONE GIVEN

Sampling Date: 06/14/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW6 - 8' (H801704-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2018	ND	1.62	81.1	2.00	0.0677	
Toluene*	<0.050	0.050	06/23/2018	ND	1.62	80.8	2.00	0.921	
Ethylbenzene*	<0.050	0.050	06/23/2018	ND	1.59	79.3	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/23/2018	ND	4.94	82.3	6.00	1.07	
Total BTX	<0.300	0.300	06/23/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	06/25/2018	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2018	ND	160	80.1	200	17.9	
DRO >C10-C28*	<10.0	10.0	06/22/2018	ND	182	90.9	200	14.9	
EXT DRO >C28-C36	<10.0	10.0	06/22/2018	ND					

Surrogate: 1-Chlorooctane 77.4 % 41-142

Surrogate: 1-Chlorooctadecane 76.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

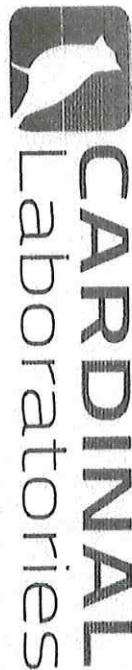
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Vanguard		P.O. #:	BILL TO								
Project Manager: John Jerry		Company: White Buffalo		ANALYSIS REQUEST							
Address:		Attn: Steve McFarlin									
City: Lurica	State: NM Zip: 88231	Address: 8908 Yale Ave #210									
Phone #:	Fax #:	City: Julia									
Project #:		State: OK Zip: 74137									
Project Location: Doo Puss B-6		Phone #: 918-660-0999									
Sample Name: Monique Cueto		Fax #:									
<small>FOR LAB USE ONLY</small>											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	Chlorides	B-Jex	TPH (GRO, PRO, MRO)
A801704	SP1-24'	G	X	GROUNDWATER			6/14/18	1:03	X	X	X
	SP5-14'	G	X	WASTEWATER				1:32	X	X	X
	SP7-40'	G	X	SOIL				8:12	X	X	X
	SP8-10'	G	X	OIL				9:13	X	X	X
	SP9-10'	G	X	SLUDGE				9:45	X	X	X
	SP10-28'	G	X	OTHER :				10:11	X	X	X
	SP11-6'	G	X	ACID/BASE:				2:08	X	X	X
	SP12-8'	G	X	ICE / COOL				3:41	X	X	X
	SW1-10'	G	X	OTHER :				4:08	X	X	X
	SW5-20'	G	X					4:39	X	X	X

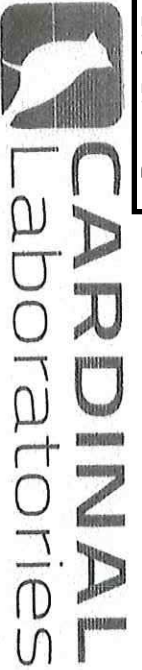
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Relinquished By:	Date: 6-21-18	Received By:	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: 3:15	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:

REMARKS:

Email: Jmariel.Montanez@whitebuffalo.com
Dakotah.Montanez@whitebuffalo.com
Metallic.Gladden@whitebuffalo.com

Delivered By: (Circle One) -14.5e **Sample Condition:** Cool ☒ Intact ☐
Sampler - UPS - Bus - Other: Estimated -14.5Se **CHECKED BY:** (Initials) TP#75



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



Analytical Report

Report Summary

Client: Grizzly Energy

Samples Received: 12/6/2019

Job Number: 19054-0003

Work Order: P912013

Project Name/Location: Abo B-6

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light blue rectangular background.

Date: 12/9/19

Walter Hinchman, Laboratory Director



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Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



Grizzly Energy
4001 Penbrook Suite 201
Odessa TX, 79762

Project Name: Abo B-6
Project Number: 19054-0003
Project Manager: Lindsey Salgado

Reported:
12/09/19 13:43

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Comp. Mix	P912013-01A	Soil	12/04/19	12/06/19	Glass Jar, 4 oz.
SW1	P912013-02A	Soil	12/04/19	12/06/19	Glass Jar, 4 oz.
SW2	P912013-03A	Soil	12/04/19	12/06/19	Glass Jar, 4 oz.
SW3	P912013-04A	Soil	12/04/19	12/06/19	Glass Jar, 4 oz.
SW4	P912013-05A	Soil	12/04/19	12/06/19	Glass Jar, 4 oz.

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Grizzly Energy	Project Name:	Abo B-6	
4001 Penbrook Suite 201	Project Number:	19054-0003	Reported:
Odessa TX, 79762	Project Manager:	Lindsey Salgado	12/09/19 13:43

**Comp. Mix
P912013-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.2 %		50-150	1949032	12/06/19	12/06/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	106	25.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
Oil Range Organics (C28-C40)	70.9	50.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		117 %		50-200	1949029	12/06/19	12/06/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.6 %		50-150	1949032	12/06/19	12/06/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	1270	40.0	mg/kg	2	1949034	12/06/19	12/06/19	EPA 300.0/9056A	
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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

SW1**P912013-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.0 %		50-150	1949032	12/06/19	12/06/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	30.4	25.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		114 %		50-200	1949029	12/06/19	12/06/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.0 %		50-150	1949032	12/06/19	12/06/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	1280	40.0	mg/kg	2	1949034	12/06/19	12/06/19	EPA 300.0/9056A	
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Grizzly Energy	Project Name:	Abo B-6	
4001 Penbrook Suite 201	Project Number:	19054-0003	Reported:
Odessa TX, 79762	Project Manager:	Lindsey Salgado	12/09/19 13:43

SW2**P912013-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.3 %		50-150	1949032	12/06/19	12/06/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	62.0	25.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
Oil Range Organics (C28-C40)	50.0	50.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		113 %		50-200	1949029	12/06/19	12/06/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.3 %		50-150	1949032	12/06/19	12/06/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	1970	100	mg/kg	5	1949034	12/06/19	12/06/19	EPA 300.0/9056A	
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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

SW3**P912013-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.2 %		50-150	1949032	12/06/19	12/06/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	287	25.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
Oil Range Organics (C28-C40)	203	50.0	mg/kg	1	1949029	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		108 %		50-200	1949029	12/06/19	12/06/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.3 %		50-150	1949032	12/06/19	12/06/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	4240	100	mg/kg	5	1949034	12/06/19	12/06/19	EPA 300.0/9056A	
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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

SW4**P912013-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.9 %		50-150	1949032	12/06/19	12/06/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	253	25.0	mg/kg	1	1949029	12/06/19	12/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	172	50.0	mg/kg	1	1949029	12/06/19	12/07/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		109 %		50-200	1949029	12/06/19	12/07/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949032	12/06/19	12/06/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.1 %		50-150	1949032	12/06/19	12/06/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	2050	100	mg/kg	5	1949034	12/06/19	12/06/19	EPA 300.0/9056A	
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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1949032 - Purge and Trap EPA 5030A**Blank (1949032-BLK1)**

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID	7.85		"	8.00		98.1	50-150			
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LCS (1949032-BS1)

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Benzene	5.03	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.12	0.0250	"	5.00		102	70-130			
Ethylbenzene	5.04	0.0250	"	5.00		101	70-130			
p,m-Xylene	10.0	0.0500	"	10.0		100	70-130			
o-Xylene	5.01	0.0250	"	5.00		100	70-130			
Total Xylenes	15.0	0.0250	"	15.0		100	70-130			

Surrogate: 4-Bromochlorobenzene-PID	7.99		"	8.00		99.9	50-150			
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Matrix Spike (1949032-MS1)

Source: P912010-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Benzene	5.12	0.0250	mg/kg	5.00	ND	102	54.3-133			
Toluene	5.19	0.0250	"	5.00	ND	104	61.4-130			
Ethylbenzene	5.14	0.0250	"	5.00	ND	103	61.4-133			
p,m-Xylene	10.2	0.0500	"	10.0	ND	102	63.3-131			
o-Xylene	5.09	0.0250	"	5.00	ND	102	63.3-131			
Total Xylenes	15.3	0.0250	"	15.0	ND	102	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID	8.10		"	8.00		101	50-150			
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Matrix Spike Dup (1949032-MSD1)

Source: P912010-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Benzene	4.94	0.0250	mg/kg	5.00	ND	98.7	54.3-133	3.71	20	
Toluene	5.06	0.0250	"	5.00	ND	101	61.4-130	2.71	20	
Ethylbenzene	4.94	0.0250	"	5.00	ND	98.9	61.4-133	3.85	20	
p,m-Xylene	9.81	0.0500	"	10.0	ND	98.1	63.3-131	4.06	20	
o-Xylene	4.89	0.0250	"	5.00	ND	97.8	63.3-131	4.02	20	
Total Xylenes	14.7	0.0250	"	15.0	ND	98.0	63.3-131	4.05	20	

Surrogate: 4-Bromochlorobenzene-PID	8.07		"	8.00		101	50-150			
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Grizzly Energy	Project Name:	Abo B-6	
4001 Penbrook Suite 201	Project Number:	19054-0003	Reported:
Odessa TX, 79762	Project Manager:	Lindsey Salgado	12/09/19 13:43

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1949029 - DRO Extraction EPA 3570

Blank (1949029-BLK1)

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	48.7		"	50.0		97.3	50-200			

LCS (1949029-BS1)

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Diesel Range Organics (C10-C28)	488	25.0	mg/kg	500		97.6	38-132			
Surrogate: n-Nonane	49.6		"	50.0		99.2	50-200			

Matrix Spike (1949029-MS1)

Source: P912013-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Diesel Range Organics (C10-C28)	720	25.0	mg/kg	500	106	123	38-132			
Surrogate: n-Nonane	61.5		"	50.0		123	50-200			

Matrix Spike Dup (1949029-MSD1)

Source: P912013-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Diesel Range Organics (C10-C28)	711	25.0	mg/kg	500	106	121	38-132	1.20	20	
Surrogate: n-Nonane	60.8		"	50.0		122	50-200			

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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1949032 - Purge and Trap EPA 5030A

Blank (1949032-BLK1)

Prepared: 12/06/19 0 Analyzed: 12/06/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.11		"	8.00		88.9	50-150			

LCS (1949032-BS2)

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Gasoline Range Organics (C6-C10)	47.6	20.0	mg/kg	50.0		95.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.19		"	8.00		89.9	50-150			

Matrix Spike (1949032-MS2)

Source: P912010-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Gasoline Range Organics (C6-C10)	46.3	20.0	mg/kg	50.0	ND	92.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.24		"	8.00		90.5	50-150			

Matrix Spike Dup (1949032-MSD2)

Source: P912010-01

Prepared: 12/06/19 0 Analyzed: 12/06/19 2

Gasoline Range Organics (C6-C10)	46.1	20.0	mg/kg	50.0	ND	92.2	70-130	0.538	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.10		"	8.00		88.7	50-150			

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Grizzly Energy	Project Name:	Abo B-6	
4001 Penbrook Suite 201	Project Number:	19054-0003	Reported:
Odessa TX, 79762	Project Manager:	Lindsey Salgado	12/09/19 13:43

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1949034 - Anion Extraction EPA 300.0/9056A**Blank (1949034-BLK1)**

Prepared & Analyzed: 12/06/19 1

Chloride ND 20.0 mg/kg

LCS (1949034-BS1)

Prepared & Analyzed: 12/06/19 1

Chloride 252 20.0 mg/kg 250 101 90-110

Matrix Spike (1949034-MS1)**Source: P912010-01**

Prepared & Analyzed: 12/06/19 1

Chloride 252 20.0 mg/kg 250 ND 101 80-120

Matrix Spike Dup (1949034-MSD1)**Source: P912010-01**

Prepared & Analyzed: 12/06/19 1

Chloride 260 20.0 mg/kg 250 ND 104 80-120 3.09 20

QC Summary Report**Comment:**

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Grizzly Energy	Project Name:	Abo B-6	Reported: 12/09/19 13:43
4001 Penbrook Suite 201	Project Number:	19054-0003	
Odessa TX, 79762	Project Manager:	Lindsey Salgado	

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Project Information

Chain of Custody

Page 1 of 13

2D

Client: Grizzly
 Project: Abd B-6
 Project Manager: Lindsey Salgado
 Address: PO Box 1058
 City, State, Zip: Hobbs NM 88241
 Phone: 505 241 2480
 Email: lsalgado@hungry-horse.com

Report Attention

Report due by: 12/9
 Attention: Natalie Chaddell
 Address:
 City, State, Zip
 Phone:
 Email: nchaddell@hungry-horse.com

Lab Use Only

Lab WO#

P912013

Job Number

19054-0003

TAT

1D

3D

EPA Program

RCRA

CWA

SDV

Analysis and Method

State

NM

CO

UT

A

Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005	BGDOC - NM	BGDOC - TX						
8:00	12/4/19	S	1	Comp. mix	1	X	X	X		X									
8:31	12/4/19	I	1	SW1	2	X	X	X		X									
8:17	12/4/19	I	1	SW2	3	X	X	X		X									
8:21	12/4/19	I	1	SW3	4	X	X	X		X									
9:30	12/4/19	I	1	SW4	5	X	X	X		X									

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<u>[Signature]</u>	<u>12/4/19</u>	<u>10:37</u>	<u>[Signature]</u>	<u>12-5-19</u>	<u>1355</u>	Received on ice: <u>Y</u> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3
<u>[Signature]</u>	<u>12-5-19</u>	<u>1505</u>	<u>Rainey Lopez</u>	<u>12/6/19</u>	<u>9:30</u>	AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Certificate of Analysis Summary 672410



Hungry Horse LLC, Hobbs, NM

Project Name: Abo B6 Pump Station

Project Id:

Date Received in Lab: Mon 09.14.2020 10:30

Contact: Daniel Dominquez

Report Date: 09.22.2020 08:44

Project Location: Grizzly Energy

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	672410-001	672410-002	672410-003	672410-004	672410-005	672410-006
	<i>Field Id:</i>	BH 1	BH 2	BH 3	BH 4	BH 5	BH 6
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45
	<i>Analyzed:</i>	09.14.2020 14:35	09.14.2020 18:21	09.14.2020 18:42	09.14.2020 19:03	09.14.2020 19:24	09.14.2020 19:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00397 0.00397	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00401 0.00401
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00
	<i>Analyzed:</i>	09.14.2020 21:22	09.14.2020 21:29	09.14.2020 21:35	09.14.2020 21:54	09.14.2020 22:00	09.14.2020 22:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1020 5.00	1160 4.97	1140 4.99	1120 5.05	982 5.05	782 25.3
TPH By SW8015 Mod	<i>Extracted:</i>	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	<i>Analyzed:</i>	09.14.2020 17:43	09.14.2020 18:41	09.14.2020 19:01	09.14.2020 19:21	09.14.2020 19:40	09.14.2020 20:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 672410



Hungry Horse LLC, Hobbs, NM

Project Name: Abo B6 Pump Station

Project Id:

Date Received in Lab: Mon 09.14.2020 10:30

Contact: Daniel Dominquez

Report Date: 09.22.2020 08:44

Project Location: Grizzly Energy

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	672410-007	672410-008	672410-009	672410-010	672410-011	672410-012
	<i>Field Id:</i>	BH 7	BH 8	BH 9	BH 10	BH 11	BH 12
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45
	<i>Analyzed:</i>	09.14.2020 20:05	09.14.2020 20:26	09.14.2020 20:47	09.14.2020 21:07	09.14.2020 16:07	09.14.2020 16:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.15.2020 15:20	09.15.2020 15:20
	<i>Analyzed:</i>	09.14.2020 22:13	09.14.2020 22:19	09.14.2020 22:26	09.14.2020 22:45	09.15.2020 20:09	09.15.2020 20:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1130 4.98	4880 49.5	93.0 5.02	769 4.99	1040 4.98	903 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	<i>Analyzed:</i>	09.14.2020 20:19	09.14.2020 20:39	09.14.2020 20:58	09.14.2020 21:18	09.14.2020 21:56	09.14.2020 22:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 672410



Hungry Horse LLC, Hobbs, NM

Project Name: Abo B6 Pump Station

Project Id:

Date Received in Lab: Mon 09.14.2020 10:30

Contact: Daniel Dominquez

Report Date: 09.22.2020 08:44

Project Location: Grizzly Energy

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	672410-013	672410-014	672410-015	672410-016	672410-017	672410-018
	<i>Field Id:</i>	SW1	SW2	SW3	SW4	SW5	SW6
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00	09.11.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45	09.14.2020 10:45
	<i>Analyzed:</i>	09.14.2020 16:49	09.14.2020 17:09	09.14.2020 17:30	09.14.2020 17:50	09.14.2020 18:11	09.14.2020 18:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00397 0.00397	<0.00398 0.00398	<0.00397 0.00397
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	09.15.2020 15:20	09.15.2020 15:20	09.15.2020 15:20	09.15.2020 15:20	09.15.2020 15:20	09.15.2020 15:20
	<i>Analyzed:</i>	09.15.2020 20:30	09.15.2020 20:35	09.15.2020 20:40	09.15.2020 20:46	09.15.2020 20:51	09.15.2020 20:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		542 5.04	500 4.98	462 4.95	496 4.95	463 4.95	502 5.04
TPH By SW8015 Mod	<i>Extracted:</i>	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	<i>Analyzed:</i>	09.14.2020 22:35	09.14.2020 22:55	09.14.2020 23:14	09.14.2020 23:33	09.14.2020 23:53	09.15.2020 00:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		127 50.0	130 50.0	133 50.0	161 49.9	98.1 49.8	74.7 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	53.3 49.9	<49.8 49.8	<49.9 49.9
Total TPH		127 50.0	130 50.0	133 50.0	214 49.9	98.1 49.8	74.7 49.9

BRL - Below Reporting Limit

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

Analytical Report 672410

for

Hungry Horse LLC

Project Manager: Daniel Dominquez

Abo B6 Pump Station

09.22.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.22.2020

Project Manager: **Daniel Dominquez**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **672410**

Abo B6 Pump Station

Project Address: Grizzly Energy

Daniel Dominquez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672410. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672410 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Chad A. Bechtold".

Chad Bechtold

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 672410****Hungry Horse LLC, Hobbs, NM**

Abo B6 Pump Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH 1	S	09.11.2020 00:00		672410-001
BH 2	S	09.11.2020 00:00		672410-002
BH 3	S	09.11.2020 00:00		672410-003
BH 4	S	09.11.2020 00:00		672410-004
BH 5	S	09.11.2020 00:00		672410-005
BH 6	S	09.11.2020 00:00		672410-006
BH 7	S	09.11.2020 00:00		672410-007
BH 8	S	09.11.2020 00:00		672410-008
BH 9	S	09.11.2020 00:00		672410-009
BH 10	S	09.11.2020 00:00		672410-010
BH 11	S	09.11.2020 00:00		672410-011
BH 12	S	09.11.2020 00:00		672410-012
SW1	S	09.11.2020 00:00		672410-013
SW2	S	09.11.2020 00:00		672410-014
SW3	S	09.11.2020 00:00		672410-015
SW4	S	09.11.2020 00:00		672410-016
SW5	S	09.11.2020 00:00		672410-017
SW6	S	09.11.2020 00:00		672410-018



CASE NARRATIVE

Client Name: Hungry Horse LLC

Project Name: Abo B6 Pump Station

Project ID:

Work Order Number(s): 672410

Report Date: 09.22.2020

Date Received: 09.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3137071 BTEX by EPA 8021B

One of the surrogates, 4-Bromofluorobenzene, was recovered above control limits due to suspected matrix interference for the sample 672410-001.



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 1**
Lab Sample Id: 672410-001

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1020	5.00	mg/kg	09.14.2020 21:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 17:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 17:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 17:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 17:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	09.14.2020 17:43	
o-Terphenyl	84-15-1	88	%	70-130	09.14.2020 17:43	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 1**
Lab Sample Id: 672410-001

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.14.2020 14:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.14.2020 14:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	132	%	70-130	09.14.2020 14:35	**	
1,4-Difluorobenzene	540-36-3	91	%	70-130	09.14.2020 14:35		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 2**
Lab Sample Id: 672410-002

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	4.97	mg/kg	09.14.2020 21:29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.14.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.14.2020 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.14.2020 18:41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.14.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 18:41	
o-Terphenyl	84-15-1	89	%	70-130	09.14.2020 18:41	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 2**
Lab Sample Id: 672410-002

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 18:21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 18:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.14.2020 18:21		
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.14.2020 18:21		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 3**
Lab Sample Id: 672410-003

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1140	4.99	mg/kg	09.14.2020 21:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 19:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 19:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 19:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 19:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 19:01	
o-Terphenyl	84-15-1	89	%	70-130	09.14.2020 19:01	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 3**
Lab Sample Id: 672410-003

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.2020 18:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 18:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.14.2020 18:42		
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.14.2020 18:42		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 4**
Lab Sample Id: 672410-004

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1120	5.05	mg/kg	09.14.2020 21:54		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 19:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 19:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 19:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 19:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 19:21	
o-Terphenyl	84-15-1	89	%	70-130	09.14.2020 19:21	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 4**
Lab Sample Id: 672410-004

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 19:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 19:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.14.2020 19:03		
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.14.2020 19:03		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 5** Matrix: Soil Date Received: 09.14.2020 10:30
 Lab Sample Id: 672410-005 Date Collected: 09.11.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	982	5.05	mg/kg	09.14.2020 22:00		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 19:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 19:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 19:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 19:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 19:40	
o-Terphenyl	84-15-1	90	%	70-130	09.14.2020 19:40	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 5**
Lab Sample Id: 672410-005

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.14.2020 19:24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.14.2020 19:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.14.2020 19:24		
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.14.2020 19:24		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 6**
Lab Sample Id: 672410-006

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	782	25.3	mg/kg	09.14.2020 22:07		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 20:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 20:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 20:00	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 20:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	09.14.2020 20:00	
o-Terphenyl	84-15-1	108	%	70-130	09.14.2020 20:00	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 6**
Lab Sample Id: 672410-006

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.14.2020 19:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 19:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.14.2020 19:45		
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.14.2020 19:45		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 7**
Lab Sample Id: 672410-007

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1130	4.98	mg/kg	09.14.2020 22:13		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 20:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 20:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 20:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 20:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 20:19	
o-Terphenyl	84-15-1	90	%	70-130	09.14.2020 20:19	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 7**
Lab Sample Id: 672410-007

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.2020 20:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 20:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.14.2020 20:05		
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.14.2020 20:05		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 8**
Lab Sample Id: 672410-008

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4880	49.5	mg/kg	09.14.2020 22:19		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 20:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 20:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 20:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 20:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	09.14.2020 20:39	
o-Terphenyl	84-15-1	88	%	70-130	09.14.2020 20:39	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 8**
Lab Sample Id: 672410-008

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 20:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 20:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.14.2020 20:26		
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.14.2020 20:26		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 9**
Lab Sample Id: 672410-009

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.0	5.02	mg/kg	09.14.2020 22:26		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 20:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 20:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 20:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 20:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	09.14.2020 20:58	
o-Terphenyl	84-15-1	90	%	70-130	09.14.2020 20:58	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 9**
Lab Sample Id: 672410-009

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.2020 20:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 20:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	09.14.2020 20:47		
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.14.2020 20:47		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 10**
Lab Sample Id: 672410-010

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.14.2020 17:00

Basis: Wet Weight

Seq Number: 3137109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	769	4.99	mg/kg	09.14.2020 22:45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 21:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 21:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 21:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 21:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	09.14.2020 21:18	
o-Terphenyl	84-15-1	93	%	70-130	09.14.2020 21:18	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 10**
Lab Sample Id: 672410-010

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.14.2020 21:07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.14.2020 21:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.14.2020 21:07		
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.14.2020 21:07		



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 11**
Lab Sample Id: 672410-011

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1040	4.98	mg/kg	09.15.2020 20:09		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.14.2020 21:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.14.2020 21:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.14.2020 21:56	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.14.2020 21:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	09.14.2020 21:56	
o-Terphenyl	84-15-1	92	%	70-130	09.14.2020 21:56	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 11**
Lab Sample Id: 672410-011

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.2020 16:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 16:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.14.2020 16:07	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.14.2020 16:07	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 12**
Lab Sample Id: 672410-012

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	903	4.96	mg/kg	09.15.2020 20:14		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 22:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 22:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 22:16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 22:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	09.14.2020 22:16	
o-Terphenyl	84-15-1	93	%	70-130	09.14.2020 22:16	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **BH 12**
Lab Sample Id: 672410-012

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 16:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 16:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.14.2020 16:28		
4-Bromofluorobenzene	460-00-4	110	%	70-130	09.14.2020 16:28		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW1**
Lab Sample Id: 672410-013

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	542	5.04	mg/kg	09.15.2020 20:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	127	50.0	mg/kg	09.14.2020 22:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 22:35	U	1
Total TPH	PHC635	127	50.0	mg/kg	09.14.2020 22:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	09.14.2020 22:35	
o-Terphenyl	84-15-1	90	%	70-130	09.14.2020 22:35	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW1**
Lab Sample Id: 672410-013

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.14.2020 16:49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.14.2020 16:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.14.2020 16:49		
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.14.2020 16:49		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW2**
Lab Sample Id: 672410-014

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	500	4.98	mg/kg	09.15.2020 20:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 22:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	130	50.0	mg/kg	09.14.2020 22:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 22:55	U	1
Total TPH	PHC635	130	50.0	mg/kg	09.14.2020 22:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	09.14.2020 22:55	
o-Terphenyl	84-15-1	91	%	70-130	09.14.2020 22:55	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM Abo B6 Pump Station

Sample Id: **SW2**
Lab Sample Id: 672410-014

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.14.2020 17:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.2020 17:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.14.2020 17:09		
4-Bromofluorobenzene	460-00-4	102	%	70-130	09.14.2020 17:09		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW3**
Lab Sample Id: 672410-015

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	462	4.95	mg/kg	09.15.2020 20:40		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 23:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	133	50.0	mg/kg	09.14.2020 23:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 23:14	U	1
Total TPH	PHC635	133	50.0	mg/kg	09.14.2020 23:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	09.14.2020 23:14	
o-Terphenyl	84-15-1	93	%	70-130	09.14.2020 23:14	



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Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW3**

Matrix: Soil

Date Received: 09.14.2020 10:30

Lab Sample Id: 672410-015

Date Collected: 09.11.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 17:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 17:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.14.2020 17:30		
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.14.2020 17:30		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW4**
Lab Sample Id: 672410-016

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	496	4.95	mg/kg	09.15.2020 20:46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 23:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	161	49.9	mg/kg	09.14.2020 23:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	53.3	49.9	mg/kg	09.14.2020 23:33		1
Total TPH	PHC635	214	49.9	mg/kg	09.14.2020 23:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	09.14.2020 23:33	
o-Terphenyl	84-15-1	98	%	70-130	09.14.2020 23:33	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW4**
Lab Sample Id: 672410-016

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.14.2020 17:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.14.2020 17:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	70	%	70-130	09.14.2020 17:50	
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.14.2020 17:50	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW5** Matrix: Soil Date Received: 09.14.2020 10:30
 Lab Sample Id: 672410-017 Date Collected: 09.11.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 09.15.2020 15:20 Basis: Wet Weight
 Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	463	4.95	mg/kg	09.15.2020 20:51		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.14.2020 23:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	98.1	49.8	mg/kg	09.14.2020 23:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.14.2020 23:53	U	1
Total TPH	PHC635	98.1	49.8	mg/kg	09.14.2020 23:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	09.14.2020 23:53	
o-Terphenyl	84-15-1	89	%	70-130	09.14.2020 23:53	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW5**
Lab Sample Id: 672410-017

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.2020 18:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.2020 18:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.14.2020 18:11		
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.14.2020 18:11		



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW6**
Lab Sample Id: 672410-018

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 09.15.2020 15:20

Basis: Wet Weight

Seq Number: 3137210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	502	5.04	mg/kg	09.15.2020 20:56		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 09.14.2020 16:00

Basis: Wet Weight

Seq Number: 3137117

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.15.2020 00:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	74.7	49.9	mg/kg	09.15.2020 00:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.15.2020 00:12	U	1
Total TPH	PHC635	74.7	49.9	mg/kg	09.15.2020 00:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	09.15.2020 00:12	
o-Terphenyl	84-15-1	88	%	70-130	09.15.2020 00:12	



Certificate of Analytical Results 672410

Hungry Horse LLC, Hobbs, NM

Abo B6 Pump Station

Sample Id: **SW6**
Lab Sample Id: 672410-018

Matrix: Soil
Date Collected: 09.11.2020 00:00

Date Received: 09.14.2020 10:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 09.14.2020 10:45

Basis: Wet Weight

Seq Number: 3137096

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.14.2020 18:31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.14.2020 18:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	09.14.2020 18:31	
1,4-Difluorobenzene	540-36-3	92	%	70-130	09.14.2020 18:31	

Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



Hungry Horse LLC

Abo B6 Pump Station

Analytical Method: Chloride by EPA 300

Seq Number: 3137109

MB Sample Id: 7711287-1-BLK

Matrix: Solid

LCS Sample Id: 7711287-1-BKS

Prep Method: E300P

Date Prep: 09.14.2020

LCSD Sample Id: 7711287-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	270	108	270	108	90-110	0	20	mg/kg	09.14.2020 20:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3137210

MB Sample Id: 7711365-1-BLK

Matrix: Solid

LCS Sample Id: 7711365-1-BKS

Prep Method: E300P

Date Prep: 09.15.2020

LCSD Sample Id: 7711365-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	269	108	270	108	90-110	0	20	mg/kg	09.15.2020 18:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3137109

Parent Sample Id: 672406-021

Matrix: Soil

MS Sample Id: 672406-021 S

Prep Method: E300P

Date Prep: 09.14.2020

MSD Sample Id: 672406-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	882	249	1100	88	1100	88	90-110	0	20	mg/kg	09.14.2020 21:03	X

Analytical Method: Chloride by EPA 300

Seq Number: 3137109

Parent Sample Id: 672410-009

Matrix: Soil

MS Sample Id: 672410-009 S

Prep Method: E300P

Date Prep: 09.14.2020

MSD Sample Id: 672410-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	93.0	251	347	101	346	101	90-110	0	20	mg/kg	09.14.2020 22:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3137210

Parent Sample Id: 672532-020

Matrix: Soil

MS Sample Id: 672532-020 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672532-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	279	112	272	109	90-110	3	20	mg/kg	09.15.2020 18:45	X

Analytical Method: Chloride by EPA 300

Seq Number: 3137210

Parent Sample Id: 672532-030

Matrix: Soil

MS Sample Id: 672532-030 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672532-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	275	110	272	109	90-110	1	20	mg/kg	09.15.2020 19:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Hungry Horse LLC Abo B6 Pump Station

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137117

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.14.2020

MB Sample Id: 7711310-1-BLK

LCS Sample Id: 7711310-1-BKS

LCSD Sample Id: 7711310-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	952	95	863	86	70-130	10	20	mg/kg	09.14.2020 17:04	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	944	94	70-130	9	20	mg/kg	09.14.2020 17:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		105		94		70-130	%	09.14.2020 17:04
o-Terphenyl	99		104		94		70-130	%	09.14.2020 17:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137117

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.14.2020

MB Sample Id: 7711310-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.14.2020 16:44	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3137117

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.14.2020

Parent Sample Id: 672410-001

MS Sample Id: 672410-001 S

MSD Sample Id: 672410-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	854	86	842	84	70-130	1	20	mg/kg	09.15.2020 07:39	
Diesel Range Organics (DRO)	<49.9	998	918	92	915	92	70-130	0	20	mg/kg	09.15.2020 07:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		91		70-130	%	09.15.2020 07:39
o-Terphenyl	96		94		70-130	%	09.15.2020 07:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137071

Matrix: Solid

Prep Method: SW5035A

Date Prep: 09.14.2020

MB Sample Id: 7711273-1-BLK

LCS Sample Id: 7711273-1-BKS

LCSD Sample Id: 7711273-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0970	97	0.102	102	70-130	5	35	mg/kg	09.14.2020 10:19	
Toluene	<0.00200	0.100	0.0986	99	0.104	104	70-130	5	35	mg/kg	09.14.2020 10:19	
Ethylbenzene	<0.00200	0.100	0.0957	96	0.101	101	70-130	5	35	mg/kg	09.14.2020 10:19	
m,p-Xylenes	<0.00400	0.200	0.206	103	0.215	108	70-130	4	35	mg/kg	09.14.2020 10:19	
o-Xylene	<0.00200	0.100	0.102	102	0.106	106	70-130	4	35	mg/kg	09.14.2020 10:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		102		104		70-130	%	09.14.2020 10:19
4-Bromofluorobenzene	89		102		105		70-130	%	09.14.2020 10:19

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Hungry Horse LLC Abo B6 Pump Station

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137096

Matrix: Solid

Prep Method: SW5035A

Date Prep: 09.14.2020

MB Sample Id: 7711315-1-BLK

LCS Sample Id: 7711315-1-BKS

LCSD Sample Id: 7711315-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.102	102	70-130	10	35	mg/kg	09.14.2020 11:02	
Toluene	<0.00200	0.100	0.118	118	0.107	107	70-130	10	35	mg/kg	09.14.2020 11:02	
Ethylbenzene	<0.00200	0.100	0.127	127	0.114	114	70-130	11	35	mg/kg	09.14.2020 11:02	
m,p-Xylenes	<0.00400	0.200	0.254	127	0.226	113	70-130	12	35	mg/kg	09.14.2020 11:02	
o-Xylene	<0.00200	0.100	0.123	123	0.110	110	70-130	11	35	mg/kg	09.14.2020 11:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		101		100		70-130	%	09.14.2020 11:02
4-Bromofluorobenzene	72		119		115		70-130	%	09.14.2020 11:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137071

Matrix: Soil

Prep Method: SW5035A

Date Prep: 09.14.2020

Parent Sample Id: 672407-002

MS Sample Id: 672407-002 S

MSD Sample Id: 672407-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0667	67	0.0558	56	70-130	18	35	mg/kg	09.14.2020 11:01	X
Toluene	0.00206	0.100	0.0561	54	0.0482	46	70-130	15	35	mg/kg	09.14.2020 11:01	X
Ethylbenzene	0.00608	0.100	0.0487	43	0.0397	34	70-130	20	35	mg/kg	09.14.2020 11:01	X
m,p-Xylenes	0.0153	0.200	0.105	45	0.0786	32	70-130	29	35	mg/kg	09.14.2020 11:01	X
o-Xylene	0.0263	0.100	0.0727	46	0.0991	73	70-130	31	35	mg/kg	09.14.2020 11:01	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		92		70-130	%	09.14.2020 11:01
4-Bromofluorobenzene	116		114		70-130	%	09.14.2020 11:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137096

Matrix: Soil

Prep Method: SW5035A

Date Prep: 09.14.2020

Parent Sample Id: 672410-011

MS Sample Id: 672410-011 S

MSD Sample Id: 672410-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0990	100	0.0916	92	70-130	8	35	mg/kg	09.14.2020 14:21	
Toluene	<0.00198	0.0992	0.105	106	0.0973	98	70-130	8	35	mg/kg	09.14.2020 14:21	
Ethylbenzene	<0.00198	0.0992	0.114	115	0.104	105	70-130	9	35	mg/kg	09.14.2020 14:21	
m,p-Xylenes	<0.00397	0.198	0.226	114	0.207	104	70-130	9	35	mg/kg	09.14.2020 14:21	
o-Xylene	<0.00198	0.0992	0.107	108	0.101	102	70-130	6	35	mg/kg	09.14.2020 14:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.14.2020 14:21
4-Bromofluorobenzene	114		117		70-130	%	09.14.2020 14:21

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

1072410

www.xenco.com Page 1 of 1

Project Manager:	Lindsey Nevels	Bill to: (if different)	
Company Name:	Hungry Horse LLC	Company Name:	
Address:	P.O. Box 1058	Address:	
City, State ZIP:	Hobbs, NM 88241	City, State ZIP:	
Phone:	575 393-3386	Email:	pm@hungry-horse.com

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Abo B6 Pump station	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:		Due Date:			
Project Location:	Grizzly Energy	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Ashton Rich				
PO #:					
SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	12-8		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	0.0		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	0.0		
Total Containers:		Corrected Temperature:	0.0		
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp
BH 1		9/11/20			X
BH 2		9/11/20			X
BH 3		9/11/20			X
BH 4		9/11/20			X
BH 5		9/11/20			X
BH 6		9/11/20			X
BH 7		9/11/20			X
BH 8		9/11/20			X
BH 9		9/11/20			X
BH 10		9/11/20			X
Parameters					
Chloride					
TPH					
BTEX					
ANALYSIS REQUEST					
Preservative Codes					
None: NO DI Water: H ₂ O					
Cool: Cool MeOH: Me					
HCL: HC HNO ₃ : HN					
H ₂ SO ₄ : H ₂ NaOH: Na					
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
Sample Comments					

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	9/11/20	2 <i>[Signature]</i>	<i>[Signature]</i>	9/14/20
3			4		10/3/20
5			6		



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
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 Atlanta, GA (770) 449-8800

Work Order No:

1072410

www.xenco.com Page 2 of 2

Project Manager:	Lindsey Nevels	Bill to: (if different)	
Company Name:	Hungry Horse LLC	Company Name:	
Address:	P.O. Box 1058	Address:	
City, State ZIP:	Hobbs, NM 88241	City, State ZIP:	
Phone:	575 393-3386	Email:	pm@hungry-horse.com

Work Order Comments	
Program: <input type="checkbox"/> PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund	
State of Project:	
Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV	
Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:		Abo B6 Pump Station		Turn Around		Pres. Code		ANALYSIS REQUEST												Preservative Codes							
Project Number:				<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush																		None: NO <input type="checkbox"/> DI Water: H ₂ O					
Project Location:		Grizzly Energy		Due Date:																		Cool: Cool <input type="checkbox"/> MeOH: Me					
Sampler's Name:		Ahston Rich		TAT starts the day received by the lab, if received by 4:30pm																		HCL: HC <input type="checkbox"/> HNO ₃ : HN					
PO #:																						H ₂ SO ₄ : H ₂ <input type="checkbox"/> NaOH: Na					
SAMPLE RECEIPT		Temp Blank:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Wet Ice:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														H ₃ PO ₄ : HP					
Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Thermometer ID:																		NaHSO ₄ : NABIS					
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Correction Factor:																		Na ₂ S ₂ O ₃ : NaSO ₃					
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Temperature Reading:																		Zn Acetate+NaOH: Zn					
Total Containers:				Corrected Temperature:																		NaOH+Ascorbic Acid: SACP					
Sample Identification		Matrix		Date Sampled		Time Sampled		Depth		Grab/Comp		# of Cont														Sample Comments	
B11				9/11/20																							
B12																											
SW1																											
SW2																											
SW3																											
SW4																											
SW5																											
SW6																											

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA		Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471	

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>[Signature]</i>	2. <i>[Signature]</i>	9/11/20	3. <i>[Signature]</i>	4. <i>[Signature]</i>	9/14/20
5.	6.				10/6/20



41 MAFB

9061 5134 9164

TRK# 0201

TX-US LBB
MAFKI
HLD

SATURDAY HOLD
PRIORITY OVERNIGHT



REF: 151215082081

WILKINSON TX 75701
FEDEX OFFICE PRINT & SHIP CENTER
200 W. INTERSTATE 20

SHIP DATE: 11SEP20
ACTWGT: 34.00 LB MAN
DIM: 24x16x15 IN
BILL RECIPIENT

ORIGIN ID: H08A (5/15) 392-1500
MAIL SERVICES ETC
4008 N GRIMES
HOBBS, NM 88240
UNITED STATES US

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 09.14.2020 10.30.00 AM

Work Order #: 672410

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 09.14.2020

Checklist reviewed by:



Holly Taylor

Date: 09.14.2020

Attachment IV
NMOCD Form C-141 Closure Page

Incident ID	nOY1814332779
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Carmen E Pitt Title: Senior EHS Specialist

Signature: *Carmen E Pitt* Date: 9/25/2020

email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Incident ID	nOY1814332779
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Printed Name: Carmen E Pitt Title: Senior EHS Specialist

Signature: Carmen E Pitt Date: 9/25/2020

email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

OCD Only

Received by: Robert Hamlet Date: 3/8/2021

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

Closure Approved by: Robert Hamlet Date: 3/8/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 10358

CONDITIONS OF APPROVAL

Operator:	GRIZZLY OPERATING, LLC	5847 San Felipe, Suite 3000	Houston, TX77057	OGRID:	258350	Action Number:	10358	Action Type:	C-141
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OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NOY1814332779 VANGUARD ABO PUMP STATION UNLINED CONTAINMENT, thank you. This closure is approved.