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Lovington, NM 88260
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Final Closure Report

**Grand Banks Energy Co
Anderson Ranch Unit #14
Lea County, New Mexico
Unit Letter "Q", Lot 1, Section 2, Township 16 South, Range 32 East
Latitude 32.94858 North, Longitude 103.73068 West
NMOCD Incident # NAPP2035233416
API# 30-025-00365**

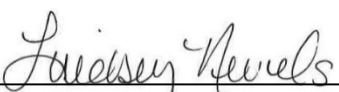
Prepared For:

Grand Banks Energy Co.
P.O. Box 272
Midland, TX 79702

Prepared By:

Hungry Horse, LLC
4024 Plains Hwy
Lovington, NM 88260

March 2021


Lindsey Nevels
Project Manager

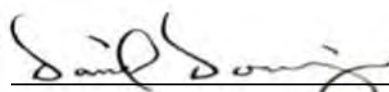

Daniel Dominguez
Sr. Project Manager

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HUNGRY HORSE, LLC

The following *Final Closure Report* serves as a condensed update on field activities undertaken at the afore referenced Site.

Background:

The site is located in Unit Letter Q (NE/SW), Lot 1, Section 2, Township 15 South, Range 32 East, approximately 28 miles northwest of Lovington, in Lea County, New Mexico. The property is owned by the State of New Mexico. 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 at an active tank battery; latitude 32.94858 North, Longitude 103.73068 West. The Initial NMOCD Form C-141 indicated that on December 15, 2020 approximately 100 bbls of oil were released when a 2 inch nipple broke on the power oil pump. Lined containment held the majority of the standing liquid but due to high gusts of wind there was some overspray onto the pasture. A vacuum truck was dispatched to the site and recovered approximately 97 bbls of oil from the containment area. The over spray area was immediately scraped up and contaminated soil hauled to an NMOCD approved disposal facility. Previously submitted pages of the NMOCD Form C-141 are available on the NMOCD Imaging System. NMOCD Form C-141 Remediation and Closure pages are included as Attachment V.

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. USGS well 325650103435601 was located .15 miles southwest of the Release Site. Well data indicates completion in Ogallala Aquifer. Gauging in 2006 indicated depth to water of approximately 213.20 feet bgs. 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
>100'	Chloride	EPA 300.0 or SM4500 CLB	20,000 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



Delineation and Remediation Activities:

On December 30 and 31, 2020, Hungry Horse conducted an initial site assessment and a series of sampling events. During the sampling events, sample test trenches were advanced throughout the affected area in an effort to determine the vertical extent of contamination. In addition, sample test trenches were advanced along the inferred edges of the affected area in an effort to determine the horizontal extent of contamination. During the advancement of the test trenches, soil samples were collected and field screened for the presence of volatile organic compounds via a photoionization detector (PID) and chloride concentrations utilizing a Hach Quantab[®] chloride test kit.

Based on field observations and field test data, sixteen (16) representative soil samples were selected for laboratory analysis. Delineation soil samples SP1 through SP5, and HZ1 through HZ3, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria with the exception of SP1 at surf, SP2 at surf, SP3 at surf, and HZ1 at 1', which exhibited TPH concentrations in excess of NMOCD Closure Criteria.

On January 18, 2021 Hungry Horse conducted additional sampling at the area characterized by sample location HZ1. A total of two (2) horizontal delineation soil samples, HZ1-B Surf and HZ1-B 1' were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria.

On February 8, 2021, Hungry Horse conducted an inspection of the tank battery liner; the integrity of the liner was verified. Photos of the liner inspection are included in Attachment I. On February 11, 2021, remediation activities commenced on location. The overspray area behind the tank battery was excavated to a depth of approximately three (3) feet bgs. The floor and sidewalls of the excavation were advanced until laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria. Excavated soil was hauled to a state approved facility for disposal.

On March 5, 2021, thirteen (13) composite confirmation soil samples were collected from the excavation floor and sidewalls. FL1 through FL9 and SW1 through SW4, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria in each of the submitted soil samples with the exception of SW1, which exhibited a TPH concentration of 1,430 mg/kg.

On March 17, 2021, Hungry Horse returned to the site for excavation activities. Impacted soil in the area characterized by sample location SW1 was excavated approximately one (1) foot



laterally. After removal of impacted soil, one confirmation soil sample, SW1a, was collected and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria.

A Delineation Sample Map and Excavation Sample Map are provided as Figure 4 and Figure 5, respectively. Field data is provided as Attachment III. A Summary of Soil Sample Laboratory Analytical Results is provided as Table 1 and Laboratory Analytical Reports are provided as Attachment IV.

The excavated area measured approximately 64 ft. in length and 37 ft. in width and 3 ft. in depth. During remediation activities approximately 558 cubic yards of impacted soil were hauled to an NMOCD approved disposal facility.

Restoration, Reclamation, and Re-Vegetation:

Based upon laboratory analytical results from confirmation soil samples, the excavated area was backfilled with locally sourced clean, non-impacted, topsoil. The area was contoured to achieve erosion control and preserve surface water flow. The affected area will be reseeded with an approved seed mixture, that is free of noxious weeds, during the first favorable growing season.

Closure Request:

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Soil affected above the NMOCD Closure Criteria was excavated and hauled to an NMOCD approved facility for disposal. Laboratory analytical results from confirmation 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 Grand Banks Energy provide copies of this *Final Closure Report* to the appropriate agencies and request closure be granted to the Anderson Ranch Unit #14.

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:

Grand Banks Energy Co.

P.O. Box 272

Midland, TX 79702

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

1625 N. French Drive

Hobbs, NM 88240

New Mexico State Land Office

914 N. Linam St.

Hobbs, NM 88240

Figures

**Figure 1**

Topographic Map
 Grand Banks Energy
 Anderson Ranch Unit #14
 GPS: 32.94858, -103.73068
 Lea County

Legend:

- Anderson Ranch Unit #14 Location

Drafted: lmn
 Checked: dd
 Date: 1/21/21



**Figure 2**

OSE POD Locations Map
 Grand Banks Energy
 Anderson Ranch Unit #14
 GPS: 32.94858, -103.73068
 Lea County

Legend:

- Anderson Ranch Unit #14 Location
- Active OSE Water Well
- ② Multiple OSE Water Wells

Drafted: Imn
 Checked: dd
 Date: 1/21/21



**Figure 3**

USGS Well Locations Map
Grand Banks Energy
Anderson Ranch Unit #14
GPS: 32.94858, -103.73068
Lea County

Legend:

- Anderson Ranch Unit #14 Location
- USGS Well Location

Drafted: lmn
Checked: dd
Date: 1/21/21



**Figure 4**

Delineation Sample Map
Grand Banks Energy
Anderson Ranch Unit #14
GPS: 32.94858, -103.73068
Lea County

Legend:

- Release Area
- Overspray Area
- SP1 Sample Location

Drafted: Imn
Checked: dd
Date: 1/21/21



**Figure 5**

Excavation Sample Map
 Grand Banks Energy
 Anderson Ranch Unit #14
 GPS: 32.94858, -103.73068
 Lea County

Legend:

-  Excavated Area
 Composite Sample Location

Drafted: dd
 Checked: Imn
 Date: 3/15/21



Tables

TABLE 1
Summary of Soil Sample Laboratory Analytical Results
Grand Banks Energy
Anderson Ranch Unit #14
NMOCD Ref. #: NAPP2035233416

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	12/30/20	Surf	Excavated	0.03	118	2,070	17,000	19,070	1,400	20,500	13.3
	12/30/20	3	Excavated	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	13.8
SP2	12/30/20	Surf	Excavated	<0.00200	1.13	1,070	8,740	9,810	653	10,500	10.7
	12/30/20	3	Excavated	<0.00199	0.0246	<50.0	<50.0	<50.0	<50.0	<50.0	16.1
SP3	12/30/20	Surf	Excavated	<0.00202	0.427	129	6,160	6,289	480	6,770	9.64
	12/30/20	3	Excavated	<0.00200	0.00249	<50.0	<50.0	<50.0	<50.0	<50.0	12.0
SP4	12/30/20	Surf	Excavated	<0.00201	0.0069	<49.9	81.9	81.9	<49.9	81.9	9.09
	12/30/20	1	Excavated	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	10.0
SP5	12/30/20	Surf	Excavated	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	7.91
	12/30/20	1	Excavated	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	20.5
HZ1	12/31/20	Surf	Excavated	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	16.6
	12/31/20	1	Excavated	<0.00201	<0.00201	<49.8	115	115	<49.9	115	46.4
HZ2	12/31/20	Surf	In-Situ	<0.00202	<0.00202	<49.9	81.3	81.3	<49.9	81.3	10.0
	12/31/20	1	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	9.15
HZ3	12/31/20	Surf	In-Situ	<0.00199	<0.00199	<49.8	52.1	52.1	<49.8	52.1	9.71
	12/31/20	1	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	21.8
HZ1B	1/18/21	Surf	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	8.84
	1/18/21	1	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	7.93
FL1	3/5/21	3	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	13.5
FL2	3/5/21	3	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
FL3	3/5/21	3	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	12.4
FL4	3/5/21	3	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	15.1
FL5	3/5/21	3	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	16.7
FL6	3/5/21	3	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	18.4
FL7	3/5/21	3	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
FL8	3/5/21	3	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	13.9
FL9	3/5/21	3	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	16.2
SW1	3/5/21	1.5	Excavated	<0.00199	<0.00199	236	1,110	1,346	86.1	1,430	13.8
SW2	3/5/21	1.5	In-Situ	<0.00200	<0.00200	<50.0	95.1	95.1	<50.0	95.1	19.0
SW3	3/5/21	1.5	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	16.5
SW4	3/5/21	1.5	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	26.0
SW1a	3/17/21	1.5	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	29.9
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000

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: South	
Description: Release within containment.	

Photo: 2	
Direction: South	
Description: Release within containment.	

Photographs



Photographs



Photographs

Photo: 7	
Direction: South	
Description: Liner inspection.	

Photo: 8	
Direction: West	
Description: Liner inspection.	

Photographs

Photo: 9	
Direction: West	
Description: Liner inspection.	

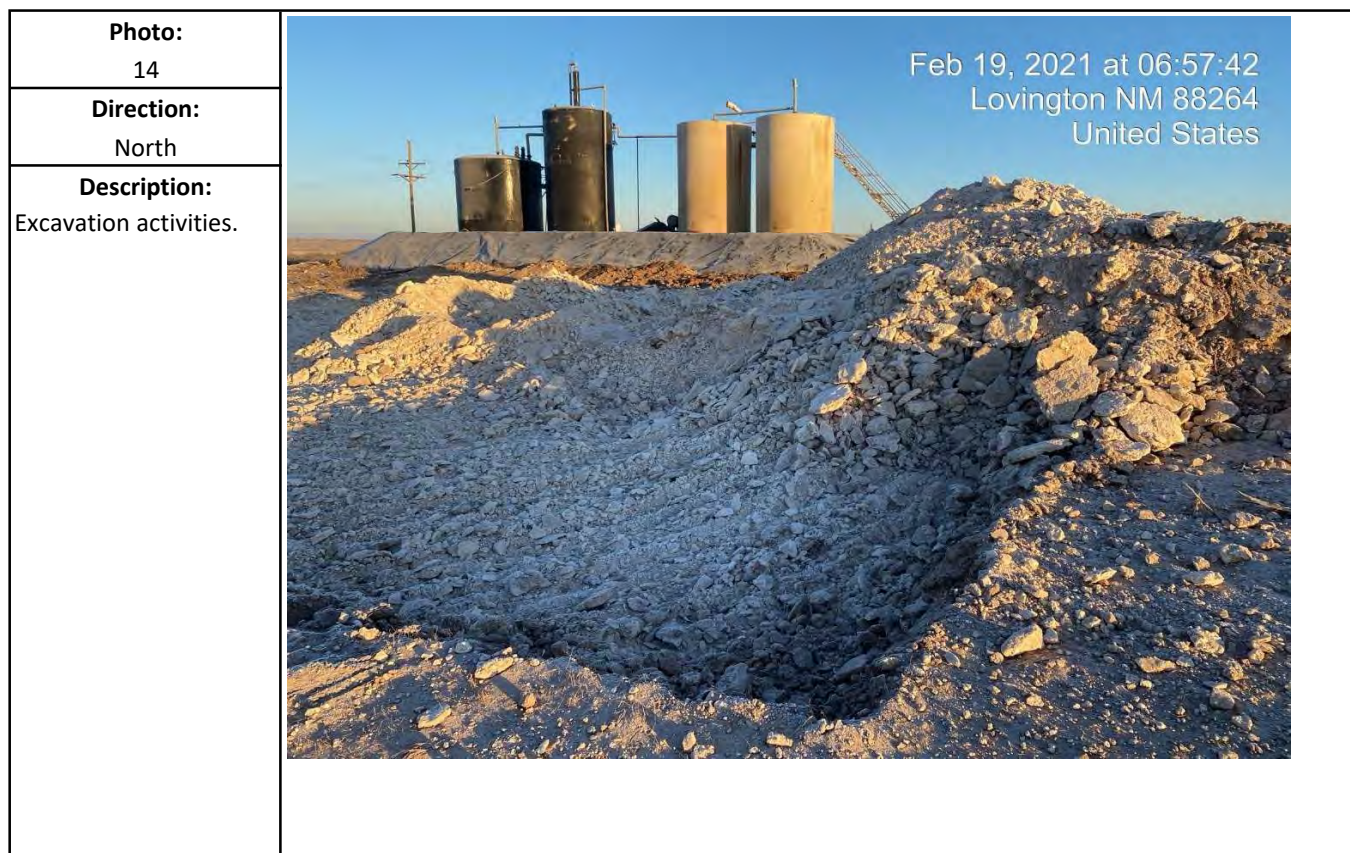
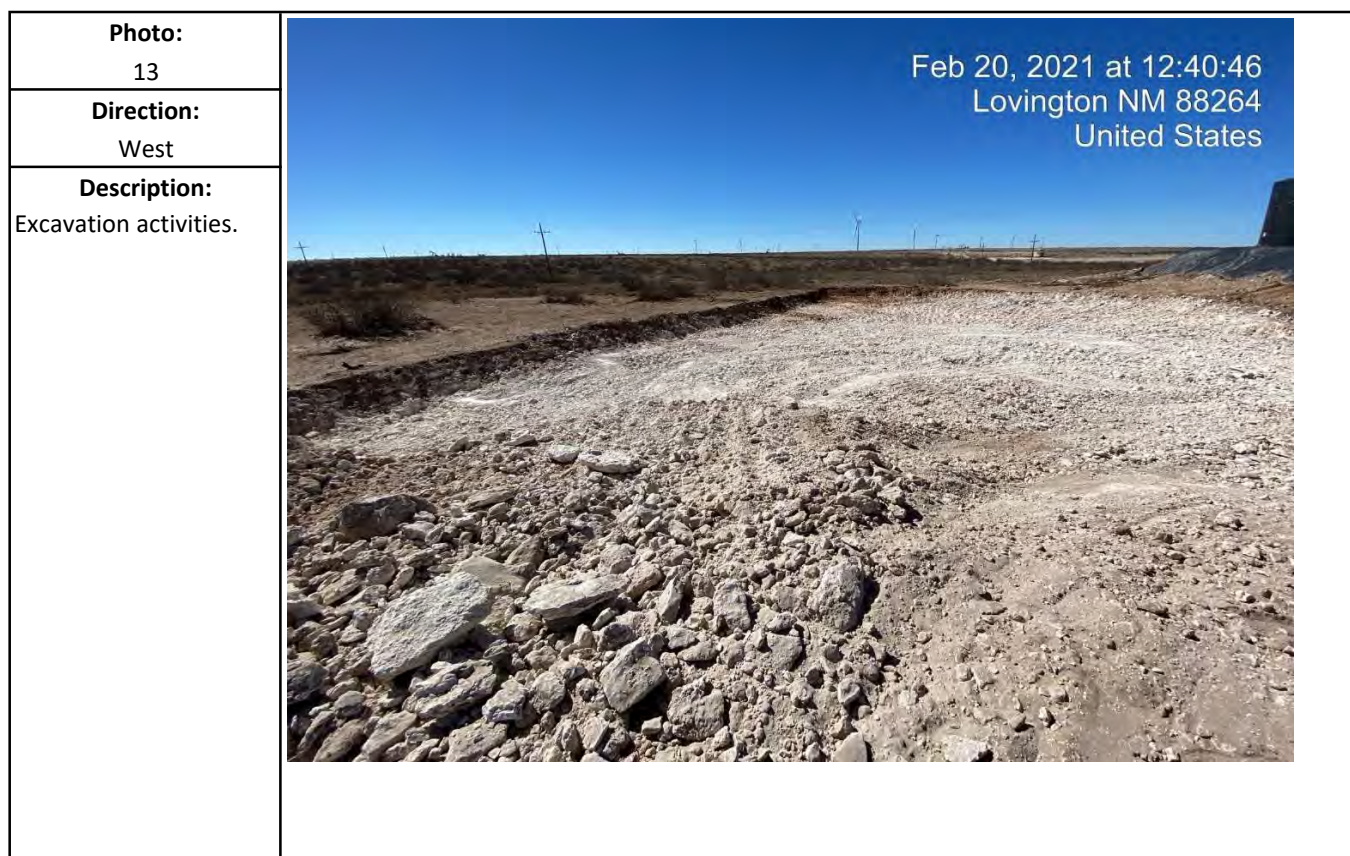
Photo: 10	
Direction: East	
Description: Liner inspection.	

Photographs

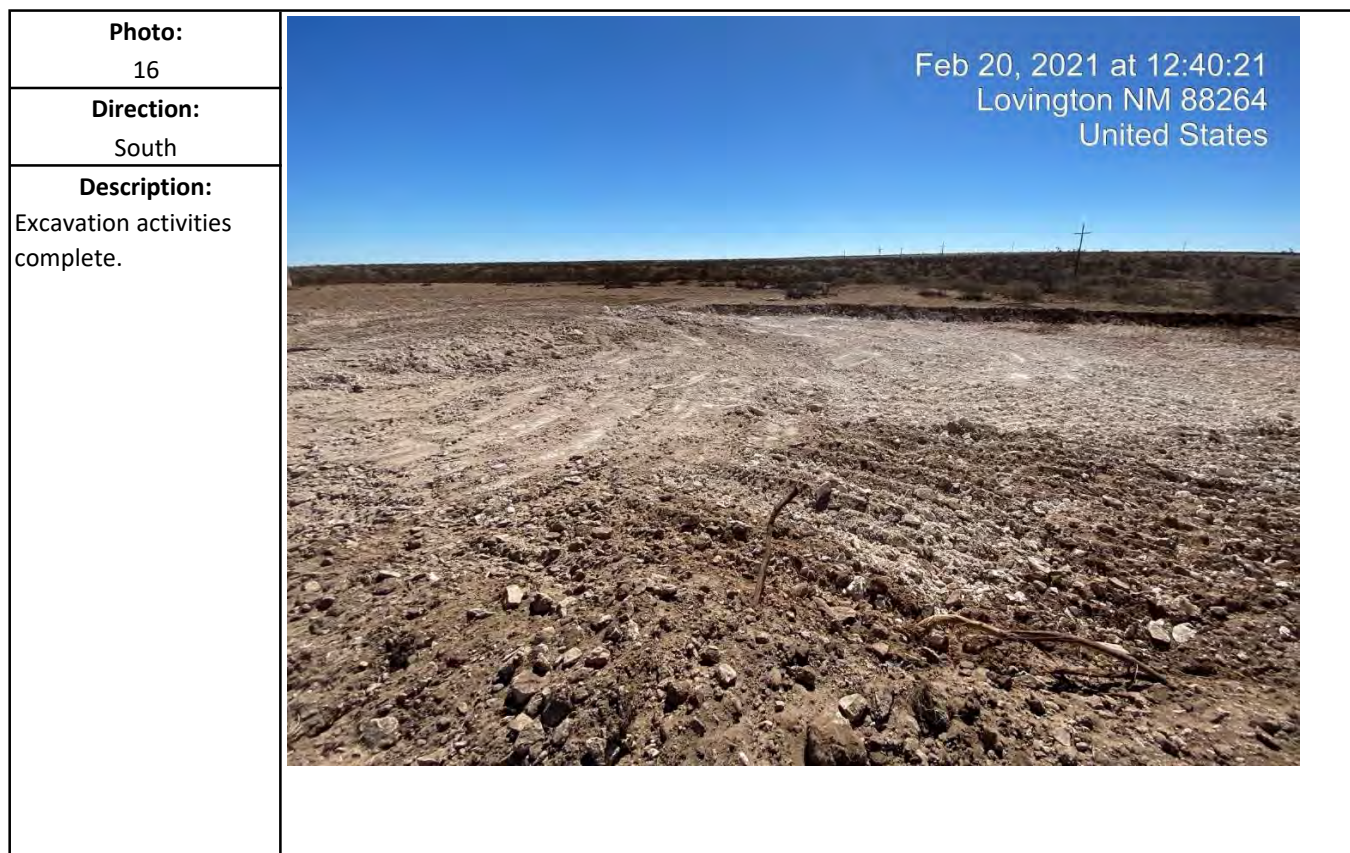
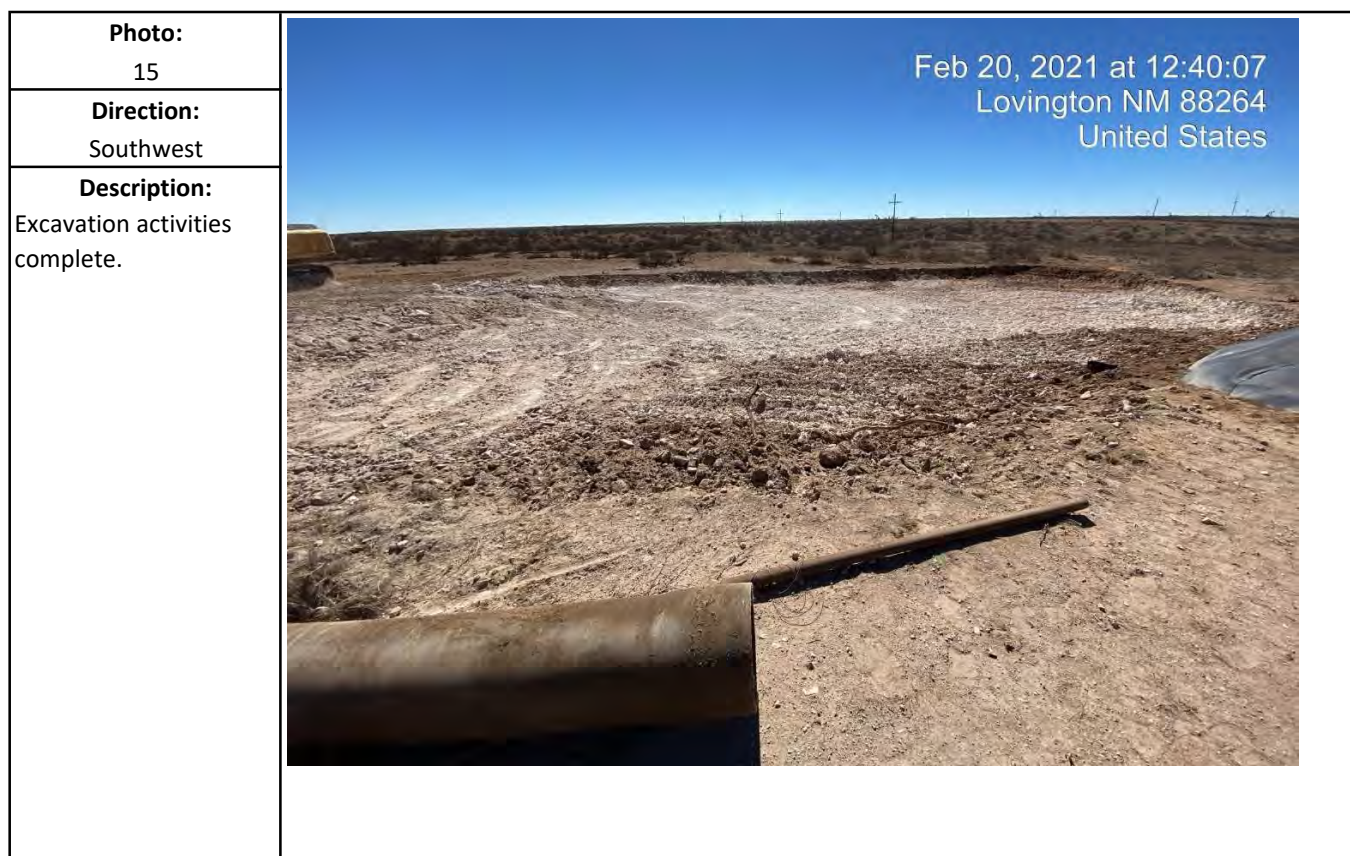
Photo: 11	 Feb 11, 2021 at 08:58:37 Lovington NM 88264 United States	
Direction: Southwest		
Description: Excavation activities.		

Photo: 12	 Feb 11, 2021 at 08:58:39 Lovington NM 88264 United States	
Direction: South		
Description: Excavation activities.		

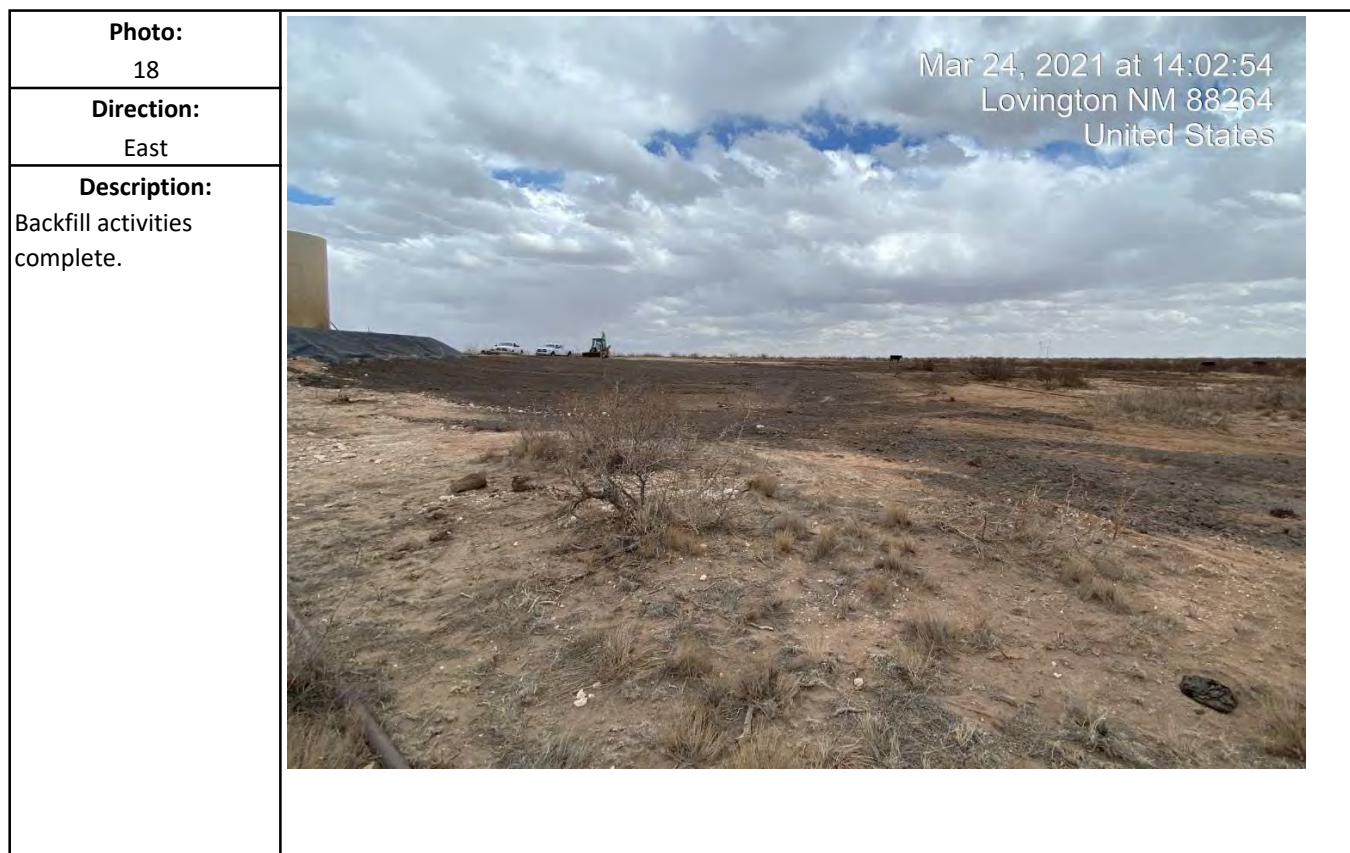
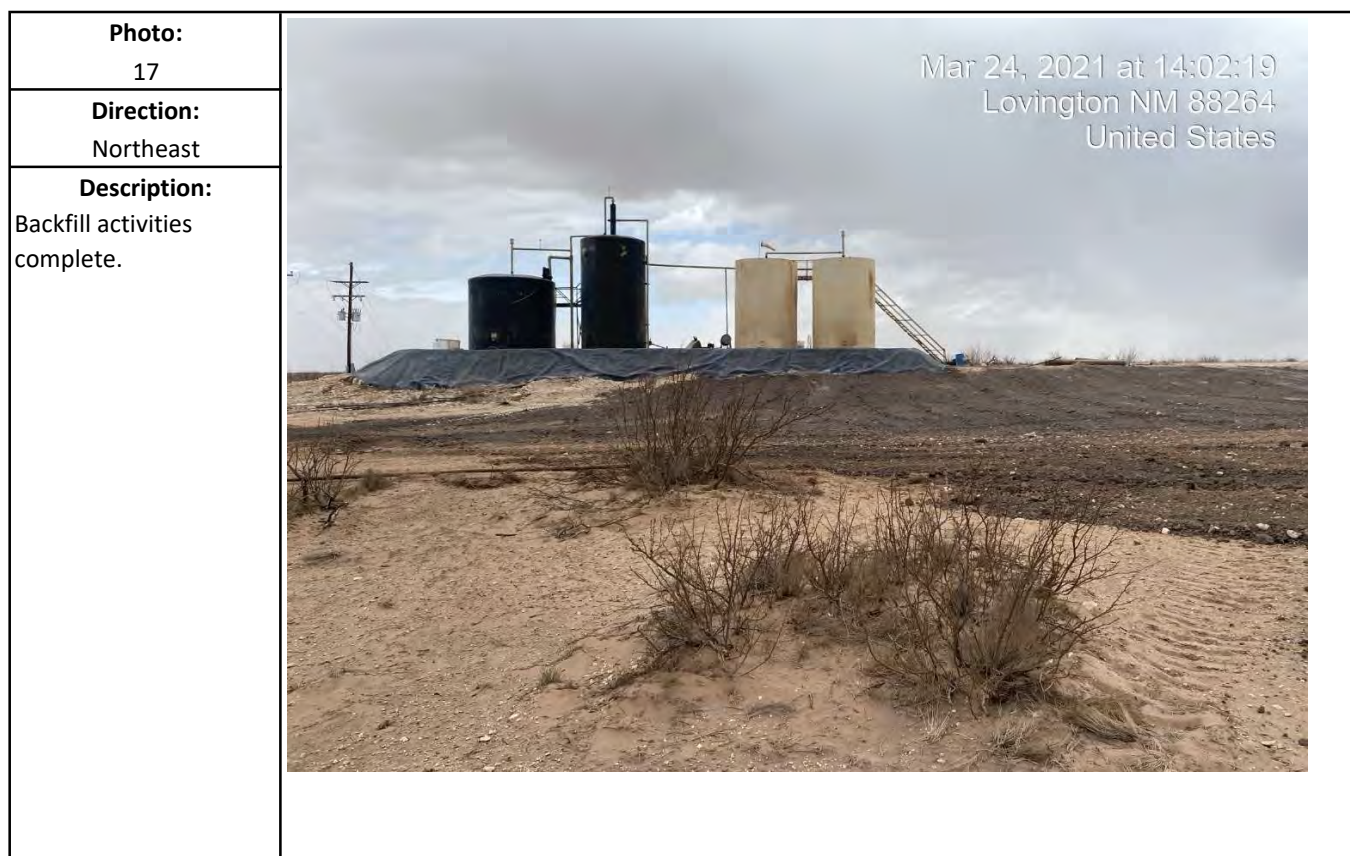
Photographs



Photographs



Photographs



Photographs

Photo: 19	
Direction: Southeast	
Description: Backfill activities complete.	

Photo: 20	
Direction: West	
Description: Backfill activities complete.	

Attachment II

Depth to Groundwater



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 02467	L	LE		1	4	02	16S	32E		618250	3646322*	383	328	275	53
L 02617	L	LE		4	4	02	16S	32E		618656	3645924*	488	322	270	52
L 08241	L	LE		4	4	02	16S	32E		618656	3645924*	488	316		
L 03631	L	LE		1	2	02	16S	32E		618240	3647126*	811	315	250	65

Average Depth to Water: **265 feet**

Minimum Depth: **250 feet**

Maximum Depth: **275 feet**

Record Count: 4

UTMNA83 Radius Search (in meters):

Easting (X): 618622.62

Northing (Y): 3646410.89

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.

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Page 1 of 1

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)				(NAD83 UTM in meters)	
		(quarters are smallest to largest)				X	Y
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng
L	02467	1	4	02	16S	32E	618250 3646322*

Driller License:	46	Driller Company:	ABBOTT BROTHERS COMPANY		
Driller Name:	MURRILL ABBOTT				
Drill Start Date:	01/19/1954	Drill Finish Date:	01/21/1954	Plug Date:	
Log File Date:	01/29/1954	PCW Rev Date:	01/29/1954	Source:	Shallow
Pump Type:	TURBIN	Pipe Discharge Size:		Estimated Yield:	50 GPM
Casing Size:	7.00	Depth Well:	328 feet	Depth Water:	275 feet

Water Bearing Stratifications:		Top	Bottom	Description
		275	328	Sandstone/Gravel/Conglomerate
Casing Perforations:		Top	Bottom	
		270	328	

*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.

12/31/20 9:05 AM 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)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
L	02617	4	4	02	16S	32E	618656	3645924*	

Driller License: 111 **Driller Company:** BURKE, EDWARD B.
Driller Name: BURKE, EDWARD B.
Drill Start Date: 08/06/1954 **Drill Finish Date:** 08/07/1954 **Plug Date:** 09/10/1957
Log File Date: 08/23/1954 **PCW Rcv Date:** 09/27/1954 **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:**
Casing Size: 7.00 **Depth Well:** 322 feet **Depth Water:** 270 feet

Water Bearing Stratifications:		Top	Bottom	Description
		280	301	Sandstone/Gravel/Conglomerate
		304	316	Sandstone/Gravel/Conglomerate

Casing Perforations:		Top	Bottom
		273	322

*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.

2/2/21 2:46 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)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	L 03631	1	2	02	16S	32E		618240	3647126*

Driller License: 90

Driller Company: BETHEL & MATTHEWS

Driller Name: H R BETHEL

Drill Start Date: 07/24/1957

Drill Finish Date: 07/31/1957

Plug Date:

Log File Date: 08/07/1957

PCW Rev Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size: 7.00

Depth Well: 315 feet

Depth Water: 250 feet

Water Bearing Stratifications:

Top	Bottom	Description
280	315	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
271	315

*UTM location was derived from PLSS - see Help

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





New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)	
		(quarters are smallest to largest)				X	Y
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng
	L 08241	4	4	02	16S	32E	618656 3645924* 
Driller License: 421		Driller Company:		GLENN'S WATER WELL SERVICE			
Driller Name: CORKY GLENN							
Drill Start Date: 04/04/1980		Drill Finish Date:		04/12/1980		Plug Date:	
Log File Date: 04/24/1980		PCW Rcv Date:				Source: Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:	
Casing Size: 6.63		Depth Well:		316 feet		Depth Water:	
Casing Perforations:		Top		Bottom			
		296		316			

*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.





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Geographic Area:
United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 325650103435601

Minimum number of levels = 1

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

USGS 325650103435601 16S.32E.02.41341

Lea County, New Mexico
Latitude 32°56'50", Longitude 103°43'56" NAD27
Land-surface elevation 4,277 feet above NAVD88
The depth of the well is 328 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
1961-03-15		D	206.99			2			U	
1976-05-06		D	209.90			2			U	
1981-03-27		D	211.34			2			U	
1986-01-10		D	211.28			2			U	
1990-11-30		D	212.54			2			U	
2001-02-16		D	214.12			2			S	
2006-02-16	12:18 MST	m	213.20			2			S	USGS

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
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	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey

Section	Code	Description
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
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0.29 0.26 nadww01



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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 325707103430901

Minimum number of levels = 1

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

USGS 325707103430901 16S.32E.01.14143

Lea County, New Mexico

Latitude 32°57'07", Longitude 103°43'09" NAD27

Land-surface elevation 4,274 feet above NAVD88

The depth of the well is 330 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 measure
1961-03-15		D	200.74			2			U	
1966-02-15		D	200.03			2			U	
1971-03-23		D	200.55			2			U	
1976-05-06		D	201.22			2			U	
1981-03-27		D	202.80			2			U	
1986-01-10		D	203.27			2			U	
1990-12-04		D	204.90			2			U	

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.

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



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0.26 0.24 nadww01



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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 325715103435101

Minimum number of levels = 1

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

USGS 325715103435101 16S.32E.02.21431

Lea County, New Mexico

Latitude 32°57'15", Longitude 103°43'51" NAD27

Land-surface elevation 4,298 feet above NAVD88

The depth of the well is 315 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 measure
1961-03-31		D	207.52			2			U	
1966-02-14		D	203.38			2			U	
1971-03-23		D	207.66			2			U	

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.

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Title: Groundwater for USA: Water Levels

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



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

Page Last Modified: 2020-12-31 12:14:28 EST

0.27 0.25 nadww01

Attachment III Field Data

Hungry Horse, LLC

Date: 12-30-2020

Project: Anderson Ranch Unit #14

Latitude: 32.94858

Longitude: -103.73068

Sampler: Ashton Rich

[illegible]

Sample Point = SP1 @ ## etc

Floor = FL1 etc

Sidewall = SW1 etc

Horizontal = HZ1 etc

Refusal = SP1 @ 4'-R

GPS Sample Points, Center of Comp Areas

Test Trench = TT1 @ ##

Resamples= SP1b @ 5' or SW #1b

Stockpile = Stockpile #1

Hungry Horse, LLC

Date: 3-5-21

Project: Anderson Ranch Unit #14

Latitude: 32.94858

Longitude: -103.73068

Sampler: Bradley

[illegible]

Sample Point = SP1 @ ## etc

Floor = FL1 etc

Sidewall = SW1 etc

Horizontal = HZ1 etc

Refusal = SP1 @ 4'-R

GPS Sample Points, Center of Comp Areas

Test Trench = TT1 @ ##

Resamples= SP1b @ 5' or SW #1b

Stockpile = Stockpile #1

Attachment IV

Laboratory Analytical Reports

Attachment V
NMOCD Form C-141 Remediation and Closure Pages

Certificate of Analysis Summary 683559



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14

Project Id: ARU #14
Contact: Daniel Dominquez
Project Location: Grandbanks

Date Received in Lab: Wed 01.06.2021 12:42**Report Date:** 01.13.2021 13:31**Project Manager:** Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	683559-001	683559-002	683559-003	683559-004	683559-005	683559-006
	<i>Field Id:</i>	SP1	SP1	SP2	SP2	SP3	SP3
	<i>Depth:</i>		3- ft		3- ft		3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	01.06.2021 13:00	01.06.2021 14:15	01.06.2021 13:00	01.06.2021 13:00	01.06.2021 13:00	01.06.2021 13:00
	<i>Analyzed:</i>	01.06.2021 19:59	01.07.2021 09:45	01.06.2021 20:40	01.06.2021 21:01	01.06.2021 21:22	01.06.2021 21:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.0343 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Toluene		12.0 D 0.200	<0.00198 0.00198	0.0602 0.00200	<0.00199 0.00199	0.0384 0.00202	<0.00200 0.00200
Ethylbenzene		7.58 D 0.200	<0.00198 0.00198	0.0639 0.00200	<0.00199 0.00199	0.0249 0.00202	<0.00200 0.00200
m,p-Xylenes		71.8 D 0.401	<0.00396 0.00396	0.672 0.00399	0.0209 0.00398	0.236 0.00404	<0.00401 0.00401
o-Xylene		26.7 D 0.200	<0.00198 0.00198	0.331 0.00200	0.00366 0.00199	0.128 0.00202	0.00249 0.00200
Total Xylenes		98.5 0.200	<0.00198 0.00198	1.00 0.00200	0.0246 0.00199	0.364 0.00202	0.00249 0.00200
Total BTEX		118 0.00200	<0.00198 0.00198	1.13 0.00200	0.0246 0.00199	0.427 0.00202	0.00249 0.00200
Chloride by EPA 300	<i>Extracted:</i>	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25
	<i>Analyzed:</i>	01.08.2021 19:56	01.08.2021 20:01	01.08.2021 20:17	01.08.2021 20:22	01.08.2021 20:27	01.08.2021 20:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13.3 5.04	13.8 4.96	10.7 5.00	16.1 5.00	9.64 5.00	12.0 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00
	<i>Analyzed:</i>	01.09.2021 09:13	01.08.2021 15:03	01.09.2021 09:35	01.08.2021 16:50	01.08.2021 17:13	01.08.2021 17:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		2070 249	<50.0 50.0	1070 249	<50.0 50.0	129 49.9	<50.0 50.0
Diesel Range Organics (DRO)		17000 249	<50.0 50.0	8740 249	<50.0 50.0	6160 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		1400 249	<50.0 50.0	653 249	<50.0 50.0	480 49.9	<50.0 50.0
Total TPH		20500 249	<50.0 50.0	10500 249	<50.0 50.0	6770 49.9	<50.0 50.0

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 683559

Hungry Horse LLC, Hobbs, NM

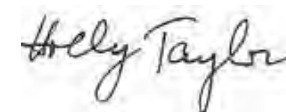
Project Name: ARU #14

Project Id: ARU #14
 Contact: Daniel Dominquez
 Project Location: Grandbanks

Date Received in Lab: Wed 01.06.2021 12:42
 Report Date: 01.13.2021 13:31
 Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	683559-007	683559-008	683559-009	683559-010		
	<i>Field Id:</i>	SP4	SP4	SP5	SP5		
	<i>Depth:</i>		1- ft		1- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00	12.30.2020 00:00		
BTEX by EPA 8021B	<i>Extracted:</i>	01.06.2021 13:00	01.06.2021 13:00	01.06.2021 13:00	01.06.2021 13:00		
	<i>Analyzed:</i>	01.06.2021 22:03	01.06.2021 22:24	01.06.2021 22:44	01.06.2021 23:05		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
Toluene		<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
Ethylbenzene		<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
m,p-Xylenes		0.00430 0.00402	<0.00396 0.00396	<0.00398 0.00398	<0.00399 0.00399		
o-Xylene		0.00260 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
Total Xylenes		0.00690 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
Total BTEX		0.00690 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25		
	<i>Analyzed:</i>	01.08.2021 20:38	01.08.2021 20:43	01.08.2021 20:58	01.08.2021 21:04		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		9.09 4.95	10.4 4.99	7.91 4.99	20.5 4.97		
TPH By SW8015 Mod	<i>Extracted:</i>	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00		
	<i>Analyzed:</i>	01.08.2021 17:56	01.08.2021 18:18	01.08.2021 18:39	01.08.2021 19:01		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0		
Diesel Range Organics (DRO)		81.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0		
Total TPH		81.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0		

BRL - Below Reporting Limit



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

Analytical Report 683559

for

Hungry Horse LLC

Project Manager: Daniel Dominquez

ARU #14

ARU #14

01.13.2021

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 (2020-014), 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 (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.13.2021

Project Manager: **Daniel Dominquez**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **683559**

ARU #14

Project Address: Grandbanks

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) 683559. 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. 683559 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 "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 683559****Hungry Horse LLC, Hobbs, NM**

ARU #14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP1	S	12.30.2020 00:00		683559-001
SP1	S	12.30.2020 00:00	3 ft	683559-002
SP2	S	12.30.2020 00:00		683559-003
SP2	S	12.30.2020 00:00	3 ft	683559-004
SP3	S	12.30.2020 00:00		683559-005
SP3	S	12.30.2020 00:00	3 ft	683559-006
SP4	S	12.30.2020 00:00		683559-007
SP4	S	12.30.2020 00:00	1 ft	683559-008
SP5	S	12.30.2020 00:00		683559-009
SP5	S	12.30.2020 00:00	1 ft	683559-010



CASE NARRATIVE

Client Name: Hungry Horse LLC

Project Name: ARU #14

Project ID: ARU #14
Work Order Number(s): 683559

Report Date: 01.13.2021
Date Received: 01.06.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3146951 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 683559-009.



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP1**
Lab Sample Id: 683559-001

Matrix: Soil
Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.3	5.04	mg/kg	01.08.2021 19:56		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2070	249	mg/kg	01.09.2021 09:13		5
Diesel Range Organics (DRO)	C10C28DRO	17000	249	mg/kg	01.09.2021 09:13		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1400	249	mg/kg	01.09.2021 09:13		5
Total TPH	PHC635	20500	249	mg/kg	01.09.2021 09:13		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	01.09.2021 09:13	
o-Terphenyl	84-15-1	113	%	70-130	01.09.2021 09:13	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP1**
 Lab Sample Id: 683559-001

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0343	0.00200	mg/kg	01.06.2021 19:59		1
Toluene	108-88-3	12.0	0.200	mg/kg	01.07.2021 10:06	D	100
Ethylbenzene	100-41-4	7.58	0.200	mg/kg	01.07.2021 10:06	D	100
m,p-Xylenes	179601-23-1	71.8	0.401	mg/kg	01.07.2021 10:06	D	100
o-Xylene	95-47-6	26.7	0.200	mg/kg	01.07.2021 10:06	D	100
Total Xylenes	1330-20-7	98.5	0.200	mg/kg	01.07.2021 10:06		100
Total BTEX		118	0.00200	mg/kg	01.07.2021 10:06		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.06.2021 19:59		
4-Bromofluorobenzene	460-00-4	343	%	70-130	01.06.2021 19:59	**	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP1** Matrix: Soil Date Received: 01.06.2021 12:42
 Lab Sample Id: 683559-002 Date Collected: 12.30.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 01.08.2021 11:25 % Moisture:
 Seq Number: 3147240 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	4.96	mg/kg	01.08.2021 20:01		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: MNR
 Analyst: ARM Date Prep: 01.08.2021 11:00 % Moisture:
 Seq Number: 3147377 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 15:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 15:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 15:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 15:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	01.08.2021 15:03	
o-Terphenyl	84-15-1	98	%	70-130	01.08.2021 15:03	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP1**
 Lab Sample Id: 683559-002

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 14:15

% Moisture:
 Basis: Wet Weight

Seq Number: 3146957

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.07.2021 09:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.07.2021 09:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.07.2021 09:45		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.07.2021 09:45		



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP2**
 Lab Sample Id: 683559-003

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
 Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.7	5.00	mg/kg	01.08.2021 20:17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1070	249	mg/kg	01.09.2021 09:35		5
Diesel Range Organics (DRO)	C10C28DRO	8740	249	mg/kg	01.09.2021 09:35		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	653	249	mg/kg	01.09.2021 09:35		5
Total TPH	PHC635	10500	249	mg/kg	01.09.2021 09:35		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	01.09.2021 09:35	
o-Terphenyl	84-15-1	114	%	70-130	01.09.2021 09:35	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP2**
 Lab Sample Id: 683559-003

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 20:40	U	1
Toluene	108-88-3	0.0602	0.00200	mg/kg	01.06.2021 20:40		1
Ethylbenzene	100-41-4	0.0639	0.00200	mg/kg	01.06.2021 20:40		1
m,p-Xylenes	179601-23-1	0.672	0.00399	mg/kg	01.06.2021 20:40		1
o-Xylene	95-47-6	0.331	0.00200	mg/kg	01.06.2021 20:40		1
Total Xylenes	1330-20-7	1.00	0.00200	mg/kg	01.06.2021 20:40		1
Total BTEX		1.13	0.00200	mg/kg	01.06.2021 20:40		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	171	%	70-130	01.06.2021 20:40	**	
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.06.2021 20:40		



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP2**
 Lab Sample Id: 683559-004

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
 Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	5.00	mg/kg	01.08.2021 20:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 16:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 16:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 16:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 16:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	01.08.2021 16:50	
o-Terphenyl	84-15-1	90	%	70-130	01.08.2021 16:50	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP2**
 Lab Sample Id: 683559-004

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.06.2021 21:01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.06.2021 21:01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.06.2021 21:01	U	1
m,p-Xylenes	179601-23-1	0.0209	0.00398	mg/kg	01.06.2021 21:01		1
o-Xylene	95-47-6	0.00366	0.00199	mg/kg	01.06.2021 21:01		1
Total Xylenes	1330-20-7	0.0246	0.00199	mg/kg	01.06.2021 21:01		1
Total BTEX		0.0246	0.00199	mg/kg	01.06.2021 21:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.06.2021 21:01	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.06.2021 21:01	



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP3**
Lab Sample Id: 683559-005

Matrix: Soil
Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.64	5.00	mg/kg	01.08.2021 20:27		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	129	49.9	mg/kg	01.08.2021 17:13		1
Diesel Range Organics (DRO)	C10C28DRO	6160	49.9	mg/kg	01.08.2021 17:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	480	49.9	mg/kg	01.08.2021 17:13		1
Total TPH	PHC635	6770	49.9	mg/kg	01.08.2021 17:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	01.08.2021 17:13	
o-Terphenyl	84-15-1	107	%	70-130	01.08.2021 17:13	



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP3**
 Lab Sample Id: 683559-005

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.06.2021 21:22	U	1
Toluene	108-88-3	0.0384	0.00202	mg/kg	01.06.2021 21:22		1
Ethylbenzene	100-41-4	0.0249	0.00202	mg/kg	01.06.2021 21:22		1
m,p-Xylenes	179601-23-1	0.236	0.00404	mg/kg	01.06.2021 21:22		1
o-Xylene	95-47-6	0.128	0.00202	mg/kg	01.06.2021 21:22		1
Total Xylenes	1330-20-7	0.364	0.00202	mg/kg	01.06.2021 21:22		1
Total BTEX		0.427	0.00202	mg/kg	01.06.2021 21:22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.06.2021 21:22		
4-Bromofluorobenzene	460-00-4	122	%	70-130	01.06.2021 21:22		



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP3**
 Lab Sample Id: 683559-006

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
 Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	5.03	mg/kg	01.08.2021 20:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 17:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 17:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 17:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	01.08.2021 17:35	
o-Terphenyl	84-15-1	92	%	70-130	01.08.2021 17:35	



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP3**
 Lab Sample Id: 683559-006

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 21:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.06.2021 21:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.06.2021 21:42	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.06.2021 21:42	U	1
o-Xylene	95-47-6	0.00249	0.00200	mg/kg	01.06.2021 21:42		1
Total Xylenes	1330-20-7	0.00249	0.00200	mg/kg	01.06.2021 21:42		1
Total BTEX		0.00249	0.00200	mg/kg	01.06.2021 21:42		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.06.2021 21:42		
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.06.2021 21:42		



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP4**
Lab Sample Id: 683559-007

Matrix: Soil
Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.09	4.95	mg/kg	01.08.2021 20:38		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.08.2021 17:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.9	49.9	mg/kg	01.08.2021 17:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.08.2021 17:56	U	1
Total TPH	PHC635	81.9	49.9	mg/kg	01.08.2021 17:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.08.2021 17:56	
o-Terphenyl	84-15-1	88	%	70-130	01.08.2021 17:56	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP4**
 Lab Sample Id: 683559-007

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.06.2021 22:03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.06.2021 22:03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.06.2021 22:03	U	1
m,p-Xylenes	179601-23-1	0.00430	0.00402	mg/kg	01.06.2021 22:03		1
o-Xylene	95-47-6	0.00260	0.00201	mg/kg	01.06.2021 22:03		1
Total Xylenes	1330-20-7	0.00690	0.00201	mg/kg	01.06.2021 22:03		1
Total BTEX		0.00690	0.00201	mg/kg	01.06.2021 22:03		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.06.2021 22:03		
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.06.2021 22:03		



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP4** Matrix: Soil Date Received: 01.06.2021 12:42
 Lab Sample Id: 683559-008 Date Collected: 12.30.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 01.08.2021 11:25 % Moisture:
 Seq Number: 3147240 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.4	4.99	mg/kg	01.08.2021 20:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: MNR
 Analyst: ARM Date Prep: 01.08.2021 11:00 % Moisture:
 Seq Number: 3147377 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.08.2021 18:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.08.2021 18:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.08.2021 18:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.08.2021 18:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	01.08.2021 18:18	
o-Terphenyl	84-15-1	88	%	70-130	01.08.2021 18:18	



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Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP4**
 Lab Sample Id: 683559-008

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.06.2021 22:24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.06.2021 22:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	01.06.2021 22:24		
1,4-Difluorobenzene	540-36-3	87	%	70-130	01.06.2021 22:24		



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP5**
Lab Sample Id: 683559-009

Matrix: Soil
Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.91	4.99	mg/kg	01.08.2021 20:58		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 18:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.08.2021 18:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 18:39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.08.2021 18:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	01.08.2021 18:39	
o-Terphenyl	84-15-1	85	%	70-130	01.08.2021 18:39	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP5**
 Lab Sample Id: 683559-009

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.06.2021 22:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.06.2021 22:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.06.2021 22:44		
4-Bromofluorobenzene	460-00-4	67	%	70-130	01.06.2021 22:44	**	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP5** Matrix: Soil Date Received: 01.06.2021 12:42
 Lab Sample Id: 683559-010 Date Collected: 12.30.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 01.08.2021 11:25 % Moisture:
 Seq Number: 3147240 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.5	4.97	mg/kg	01.08.2021 21:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: MNR
 Analyst: ARM Date Prep: 01.08.2021 11:00 % Moisture:
 Seq Number: 3147377 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 19:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 19:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 19:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 19:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	01.08.2021 19:01	
o-Terphenyl	84-15-1	96	%	70-130	01.08.2021 19:01	



Certificate of Analytical Results 683559

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **SP5**
 Lab Sample Id: 683559-010

Matrix: Soil
 Date Collected: 12.30.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.06.2021 13:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3146951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.06.2021 23:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.06.2021 23:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.06.2021 23:05		
1,4-Difluorobenzene	540-36-3	90	%	70-130	01.06.2021 23:05		

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

ARU #14

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

MB Sample Id: 7718726-1-BLK

Matrix: Solid

LCS Sample Id: 7718726-1-BKS

Prep Method: E300P

Date Prep: 01.08.2021

LCSD Sample Id: 7718726-1-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	256	102	256	102	90-110	0	20	mg/kg	01.08.2021 19:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

Parent Sample Id: 683555-016

Matrix: Soil

MS Sample Id: 683555-016 S

Prep Method: E300P

Date Prep: 01.08.2021

MSD Sample Id: 683555-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	317	248	570	102	570	102	90-110	0	20	mg/kg	01.08.2021 19:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

Parent Sample Id: 683559-008

Matrix: Soil

MS Sample Id: 683559-008 S

Prep Method: E300P

Date Prep: 01.08.2021

MSD Sample Id: 683559-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.4	250	273	105	272	105	90-110	0	20	mg/kg	01.08.2021 20:48	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

MB Sample Id: 7718850-1-BLK

Matrix: Solid

LCS Sample Id: 7718850-1-BKS

Prep Method: SW8015P

Date Prep: 01.08.2021

LCSD Sample Id: 7718850-1-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	944	94	873	87	70-130	8	20	mg/kg	01.08.2021 14:21	
Diesel Range Organics (DRO)	<50.0	1000	937	94	942	94	70-130	1	20	mg/kg	01.08.2021 14:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		96		96		70-130	%	01.08.2021 14:21
o-Terphenyl	101		95		96		70-130	%	01.08.2021 14:21

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

Matrix: Solid

MB Sample Id: 7718850-1-BLK

Prep Method: SW8015P

Date Prep: 01.08.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.08.2021 13:56	

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

ARU #14

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

Parent Sample Id: 683559-002

Matrix: Soil

MS Sample Id: 683559-002 S

Prep Method: SW8015P

Date Prep: 01.08.2021

MSD Sample Id: 683559-002 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	1070	107	1020	102	70-130	5	20	mg/kg	01.08.2021 15:24	
Diesel Range Organics (DRO)	<49.9	998	1080	108	1000	100	70-130	8	20	mg/kg	01.08.2021 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		91		70-130	%	01.08.2021 15:24
o-Terphenyl	103		88		70-130	%	01.08.2021 15:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146951

MB Sample Id: 7718602-1-BLK

Matrix: Solid

LCS Sample Id: 7718602-1-BKS

Prep Method: SW5035A

Date Prep: 01.06.2021

LCSD Sample Id: 7718602-1-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	0.0968	97	0.102	102	70-130	5	35	mg/kg	01.06.2021 13:06	
Toluene	<0.00200	0.100	0.107	107	0.113	113	70-130	5	35	mg/kg	01.06.2021 13:06	
Ethylbenzene	<0.00200	0.100	0.101	101	0.108	108	70-130	7	35	mg/kg	01.06.2021 13:06	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.218	109	70-130	9	35	mg/kg	01.06.2021 13:06	
o-Xylene	<0.00200	0.100	0.0957	96	0.105	105	70-130	9	35	mg/kg	01.06.2021 13:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		93		95		70-130	%	01.06.2021 13:06
4-Bromofluorobenzene	111		101		106		70-130	%	01.06.2021 13:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146957

MB Sample Id: 7718603-1-BLK

Matrix: Solid

LCS Sample Id: 7718603-1-BKS

Prep Method: SW5035A

Date Prep: 01.06.2021

LCSD Sample Id: 7718603-1-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	0.101	101	0.100	100	70-130	1	35	mg/kg	01.07.2021 00:08	
Toluene	<0.00200	0.100	0.107	107	0.109	109	70-130	2	35	mg/kg	01.07.2021 00:08	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.0990	99	70-130	1	35	mg/kg	01.07.2021 00:08	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.196	98	70-130	2	35	mg/kg	01.07.2021 00:08	
o-Xylene	<0.00200	0.100	0.0954	95	0.0960	96	70-130	1	35	mg/kg	01.07.2021 00:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		96		95		70-130	%	01.07.2021 00:08
4-Bromofluorobenzene	111		103		104		70-130	%	01.07.2021 00:08

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

ARU #14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146951

Parent Sample Id: 683472-016

Matrix: Solid

MS Sample Id: 683472-016 S

Prep Method: SW5035A

Date Prep: 01.06.2021

MSD Sample Id: 683472-016 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	0.0639	64	0.0609	60	70-130	5	35	mg/kg	01.06.2021 13:48	X
Toluene	<0.00200	0.100	0.0807	81	0.0838	83	70-130	4	35	mg/kg	01.06.2021 13:48	
Ethylbenzene	<0.00200	0.100	0.0804	80	0.0887	88	70-130	10	35	mg/kg	01.06.2021 13:48	
m,p-Xylenes	<0.00401	0.200	0.156	78	0.176	87	70-130	12	35	mg/kg	01.06.2021 13:48	
o-Xylene	<0.00200	0.100	0.0757	76	0.0851	84	70-130	12	35	mg/kg	01.06.2021 13:48	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		91		70-130	%	01.06.2021 13:48
4-Bromofluorobenzene	110		121		70-130	%	01.06.2021 13:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146957

Parent Sample Id: 683555-001

Matrix: Soil

MS Sample Id: 683555-001 S

Prep Method: SW5035A

Date Prep: 01.06.2021

MSD Sample Id: 683555-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0827	84	0.0743	75	70-130	11	35	mg/kg	01.07.2021 00:49	
Toluene	<0.00198	0.0990	0.0852	86	0.0795	80	70-130	7	35	mg/kg	01.07.2021 00:49	
Ethylbenzene	<0.00198	0.0990	0.0826	83	0.0761	77	70-130	8	35	mg/kg	01.07.2021 00:49	
m,p-Xylenes	<0.00396	0.198	0.150	76	0.140	71	70-130	7	35	mg/kg	01.07.2021 00:49	
o-Xylene	<0.00198	0.0990	0.0746	75	0.0685	69	70-130	9	35	mg/kg	01.07.2021 00:49	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		96		70-130	%	01.07.2021 00:49
4-Bromofluorobenzene	103		101		70-130	%	01.07.2021 00:49

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) 355-0800
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 889-6701
 Atlanta, GA (770) 449-8800

Work Order No: 1683559

www.xenco.com Page 1 of 1

Project Manager:	Lindsey Nevels	Bill to: (if different)	Cambrion Management
Company Name:	Hungry Horse	Company Name:	arickard@cambrionmgmt.com
Address:	PO Box 1058	Address:	PO Box 272
City, State ZIP:	Hobbs, NM 88241	City, State ZIP:	Midland, TX 79701
Phone:	432 241-2480	Email:	pm@hungry-horse.com

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: _____ Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other: _____	
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Project Name:	ARU #14	Turn Around	Pres. Code	ANALYSIS REQUEST																Preservative Codes							
Project Number:	Grandbanks	☒ Routine ☐ Rush																		None: NO	DI Water: H ₂ O						
Project Location:	ARU #14	Due Date:																		Cool: Cool	MeOH: Me						
Sampler's Name:	Alston Rich	TAT starts the day received by the lab, if received by 4:30pm																		HCL: HC	HNO ₃ : HN						
PO #:																				H ₂ SO ₄ : H ₂	NaOH: Na						
SAMPLE RECEIPT	Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐																	H ₃ PO ₄ : HP						
	Received Intact:	Yes ☒ No ☐	Thermometer ID:	109																	NaHSO ₄ : NABIS						
	Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	0.5																	Na ₂ S ₂ O ₃ : NaSO ₃						
	Sample Custody Seals:	Yes ☒ No ☐	Temperature Reading:	1.2																	Zn Acetate+NaOH: Zn						
	Total Containers:	Yes ☒ No ☐	Corrected Temperature:	1.7																	NaOH+Ascorbic Acid: SACP						
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDE																Sample Comments				
SP1		12/30/2020		Surf			X	X	X	X	BTEX																
SP1		12/30/2020		3'			X	X	X	X	TPH																
SP2		12/30/2020		Surf			X	X	X	X																	
SP2		12/30/2020		3'			X	X	X	X																	
SP3		12/30/2020		Surf			X	X	X	X																	
SP3		12/30/2020		3'			X	X	X	X																	
SP4		12/30/2020		Surf			X	X	X	X																	
SP4		12/30/2020		1'			X	X	X	X																	
SP5		12/30/2020		Surf			X	X	X	X																	
SP5		12/30/2020		1'			X	X	X	X																	

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
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. Ashton Rich	NY2.	12/31/2020	2. NY2	NY2	01-06-21
3.			4.		12/4/21
5.			6.		

ORIGIN ID: HOBBA (5/5) 392-7550	SHIP DATE: 05JAN21
* MAIL SERVICES ETC	ACTWGT: 43.00 LB MAN
400B N GRIMES	CAD: 0103352/CAFE3313
HOBBS, NM 88240	DIMS: 19x17x12 IN
UNITED STATES US	BILL RECIPIENT

TO XENCO HOLD FOR PICKUP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH
MIDLAND TX 79711

(432) 704-5440 REF: DEPT:
INV: PO:

565CL/1136/0562

FedEx
Express

E

J191213082001

76 1569

MAFA

WED - 06 JAN HOLD
STANDARD OVERNIGHT
HLD
MAFA
TX-US LBB

PAV # 156140-434 RTT

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 01.06.2021 12.42.00 PM

Work Order #: 683559

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 01.06.2021

Checklist reviewed by:



Holly Taylor

Date: 01.07.2021

Certificate of Analysis Summary 683560



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14

Project Id: ARU #14
Contact: Daniel Dominquez
Project Location: Grandbanks

Date Received in Lab: Wed 01.06.2021 12:42
Report Date: 01.13.2021 09:08
Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	683560-001	683560-002	683560-003	683560-004	683560-005	683560-006
	<i>Field Id:</i>	HZ1	HZ1	HZ2	HZ2	HZ3	HZ3
	<i>Depth:</i>		1- ft		1- ft		1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.31.2020 00:00	12.31.2020 00:00	12.31.2020 00:00	12.31.2020 00:00	12.31.2020 00:00	12.31.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	01.07.2021 09:00	01.07.2021 09:00	01.07.2021 09:00	01.07.2021 09:00	01.07.2021 09:00	01.07.2021 09:00
	<i>Analyzed:</i>	01.07.2021 12:21	01.07.2021 12:42	01.07.2021 13:02	01.07.2021 13:22	01.07.2021 13:43	01.07.2021 14:03
	<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	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25	01.08.2021 11:25
	<i>Analyzed:</i>	01.08.2021 21:19	01.08.2021 21:25	01.08.2021 21:30	01.08.2021 21:35	01.08.2021 21:40	01.08.2021 21:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		16.6 5.05	46.4 4.98	10.1 4.97	9.15 5.00	9.71 4.95	21.8 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00	01.08.2021 11:00
	<i>Analyzed:</i>	01.08.2021 19:43	01.08.2021 20:05	01.08.2021 20:27	01.08.2021 20:48	01.08.2021 21:10	01.08.2021 21:31
	<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	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	115 49.8	81.3 49.9	<50.0 50.0	52.1 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Total TPH		<49.9 49.9	115 49.8	81.3 49.9	<50.0 50.0	52.1 49.8	<50.0 50.0

BRL - Below Reporting Limit

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

Analytical Report 683560

for

Hungry Horse LLC

Project Manager: Daniel Dominquez

ARU #14

ARU #14

01.13.2021

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 (2020-014), 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 (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.13.2021

Project Manager: **Daniel Dominquez**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **683560**

ARU #14

Project Address: Grandbanks

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) 683560. 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. 683560 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 "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 683560****Hungry Horse LLC, Hobbs, NM**

ARU #14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
HZ1	S	12.31.2020 00:00		683560-001
HZ1	S	12.31.2020 00:00	1 ft	683560-002
HZ2	S	12.31.2020 00:00		683560-003
HZ2	S	12.31.2020 00:00	1 ft	683560-004
HZ3	S	12.31.2020 00:00		683560-005
HZ3	S	12.31.2020 00:00	1 ft	683560-006

**CASE NARRATIVE****Client Name: Hungry Horse LLC****Project Name: ARU #14**Project ID: ARU #14
Work Order Number(s): 683560Report Date: 01.13.2021
Date Received: 01.06.2021**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3147092 BTEX by EPA 8021B

Lab Sample ID 683560-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike. Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 683560-001, -002, -003, -004, -005, -006.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ1**
Lab Sample Id: 683560-001

Matrix: Soil
Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.6	5.05	mg/kg	01.08.2021 21:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.08.2021 19:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.08.2021 19:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.08.2021 19:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.08.2021 19:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-130	01.08.2021 19:43		
o-Terphenyl	84-15-1	86	%	70-130	01.08.2021 19:43		



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ1**
 Lab Sample Id: 683560-001

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.07.2021 12:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.07.2021 12:21	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.07.2021 12:21	UX	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.07.2021 12:21	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.07.2021 12:21	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.07.2021 12:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.07.2021 12:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.07.2021 12:21		
1,4-Difluorobenzene	540-36-3	95	%	70-130	01.07.2021 12:21		



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ1**
 Lab Sample Id: 683560-002

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
 Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.4	4.98	mg/kg	01.08.2021 21:25		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 20:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	115	49.8	mg/kg	01.08.2021 20:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 20:05	U	1
Total TPH	PHC635	115	49.8	mg/kg	01.08.2021 20:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.08.2021 20:05	
o-Terphenyl	84-15-1	89	%	70-130	01.08.2021 20:05	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ1**
 Lab Sample Id: 683560-002

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.07.2021 12:42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.07.2021 12:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.07.2021 12:42	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.07.2021 12:42	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ2**
Lab Sample Id: 683560-003

Matrix: Soil
Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	4.97	mg/kg	01.08.2021 21:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.08.2021 20:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.3	49.9	mg/kg	01.08.2021 20:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.08.2021 20:27	U	1
Total TPH	PHC635	81.3	49.9	mg/kg	01.08.2021 20:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	01.08.2021 20:27	
o-Terphenyl	84-15-1	104	%	70-130	01.08.2021 20:27	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ2**
 Lab Sample Id: 683560-003

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.07.2021 13:02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.07.2021 13:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.07.2021 13:02	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.07.2021 13:02	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ2**
Lab Sample Id: 683560-004

Matrix: Soil
Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.15	5.00	mg/kg	01.08.2021 21:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 20:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 20:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 20:48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 20:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.08.2021 20:48	
o-Terphenyl	84-15-1	90	%	70-130	01.08.2021 20:48	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ2**
 Lab Sample Id: 683560-004

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.07.2021 13:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.07.2021 13:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.07.2021 13:22		
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.07.2021 13:22		



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ3**
Lab Sample Id: 683560-005

Matrix: Soil
Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.71	4.95	mg/kg	01.08.2021 21:40		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 21:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	52.1	49.8	mg/kg	01.08.2021 21:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 21:10	U	1
Total TPH	PHC635	52.1	49.8	mg/kg	01.08.2021 21:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	01.08.2021 21:10	
o-Terphenyl	84-15-1	92	%	70-130	01.08.2021 21:10	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ3**
 Lab Sample Id: 683560-005

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.07.2021 13:43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.07.2021 13:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.07.2021 13:43		
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.07.2021 13:43		



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ3**
 Lab Sample Id: 683560-006

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.08.2021 11:25

% Moisture:
 Basis: Wet Weight

Seq Number: 3147240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.8	4.95	mg/kg	01.08.2021 21:45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: MNR

Analyst: ARM

Date Prep: 01.08.2021 11:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147377

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 21:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 21:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 21:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 21:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	01.08.2021 21:31	
o-Terphenyl	84-15-1	111	%	70-130	01.08.2021 21:31	



Certificate of Analytical Results 683560

Hungry Horse LLC, Hobbs, NM

ARU #14

Sample Id: **HZ3**
 Lab Sample Id: 683560-006

Matrix: Soil
 Date Collected: 12.31.2020 00:00

Date Received: 01.06.2021 12:42
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 01.07.2021 09:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3147092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.07.2021 14:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.07.2021 14:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.07.2021 14:03		
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.07.2021 14:03		



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

ARU #14

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

MB Sample Id: 7718726-1-BLK

Matrix: Solid

LCS Sample Id: 7718726-1-BKS

Prep Method: E300P

Date Prep: 01.08.2021

LCSD Sample Id: 7718726-1-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	256	102	256	102	90-110	0	20	mg/kg	01.08.2021 19:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

Parent Sample Id: 683555-016

Matrix: Soil

MS Sample Id: 683555-016 S

Prep Method: E300P

Date Prep: 01.08.2021

MSD Sample Id: 683555-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	317	248	570	102	570	102	90-110	0	20	mg/kg	01.08.2021 19:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3147240

Parent Sample Id: 683559-008

Matrix: Soil

MS Sample Id: 683559-008 S

Prep Method: E300P

Date Prep: 01.08.2021

MSD Sample Id: 683559-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.4	250	273	105	272	105	90-110	0	20	mg/kg	01.08.2021 20:48	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

MB Sample Id: 7718850-1-BLK

Matrix: Solid

LCS Sample Id: 7718850-1-BKS

Prep Method: SW8015P

Date Prep: 01.08.2021

LCSD Sample Id: 7718850-1-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	944	94	873	87	70-130	8	20	mg/kg	01.08.2021 14:21	
Diesel Range Organics (DRO)	<50.0	1000	937	94	942	94	70-130	1	20	mg/kg	01.08.2021 14:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		96		96		70-130	%	01.08.2021 14:21
o-Terphenyl	101		95		96		70-130	%	01.08.2021 14:21

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

Matrix: Solid

MB Sample Id: 7718850-1-BLK

Prep Method: SW8015P

Date Prep: 01.08.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.08.2021 13:56	

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

ARU #14

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147377

Parent Sample Id: 683559-002

Matrix: Soil

MS Sample Id: 683559-002 S

Prep Method: SW8015P

Date Prep: 01.08.2021

MSD Sample Id: 683559-002 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	1070	107	1020	102	70-130	5	20	mg/kg	01.08.2021 15:24	
Diesel Range Organics (DRO)	<49.9	998	1080	108	1000	100	70-130	8	20	mg/kg	01.08.2021 15:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		91		70-130	%	01.08.2021 15:24
o-Terphenyl	103		88		70-130	%	01.08.2021 15:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147092

MB Sample Id: 7718690-1-BLK

Matrix: Solid

LCS Sample Id: 7718690-1-BKS

Prep Method: SW5035A

Date Prep: 01.07.2021

LCSD Sample Id: 7718690-1-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	0.101	101	0.0934	93	70-130	8	35	mg/kg	01.07.2021 10:00	
Toluene	<0.00200	0.100	0.0977	98	0.0895	90	70-130	9	35	mg/kg	01.07.2021 10:00	
Ethylbenzene	<0.00200	0.100	0.0998	100	0.0913	91	70-130	9	35	mg/kg	01.07.2021 10:00	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.184	92	70-130	8	35	mg/kg	01.07.2021 10:00	
o-Xylene	<0.00200	0.100	0.100	100	0.0912	91	70-130	9	35	mg/kg	01.07.2021 10:00	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		99		99		70-130	%	01.07.2021 10:00
4-Bromofluorobenzene	107		98		98		70-130	%	01.07.2021 10:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147092

Parent Sample Id: 683560-001

Matrix: Soil

MS Sample Id: 683560-001 S

Prep Method: SW5035A

Date Prep: 01.07.2021

MSD Sample Id: 683560-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0724	72	0.0755	76	70-130	4	35	mg/kg	01.07.2021 10:41	
Toluene	<0.00201	0.101	0.0655	65	0.0694	70	70-130	6	35	mg/kg	01.07.2021 10:41	X
Ethylbenzene	<0.00201	0.101	0.0609	60	0.0644	65	70-130	6	35	mg/kg	01.07.2021 10:41	X
m,p-Xylenes	<0.00402	0.201	0.125	62	0.130	66	70-130	4	35	mg/kg	01.07.2021 10:41	X
o-Xylene	<0.00201	0.101	0.0631	62	0.0653	66	70-130	3	35	mg/kg	01.07.2021 10:41	X

Surrogate

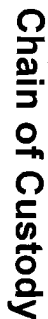
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		100		70-130	%	01.07.2021 10:41
4-Bromofluorobenzene	109		102		70-130	%	01.07.2021 10:41

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



Work Order No: 693560

of

[illegible][illegible]

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenico, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenico 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 Xenico. A minimum charge of \$35.00 will be applied to each project, and a charge of \$5 for each sample submitted to Xenico, 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 Ashton Rich	ADL	12/31 11:30	ADL	J. Hammett	01.06.21
3		4			1342
5		6			

ORIGIN ID: H0BA (5/5) 392-7550	SHIP DATE: 05JAN21
* MAIL SERVICES ETC	ACTWGT: 43.00 LB MAN
4008 N GRIMES	CAD: 0103352/CAFE3313
HOBBS, NM 88240	DIMS: 19x17x12 IN
UNITED STATES US	BILL RECIPIENT

TO XENCO HOLD FOR PICKUP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH
MIDLAND TX 79711

(432) 704-5440
INV: REF: PO: DEPT:

565C1/1136/05A2

 J191219082801u

WED - 06 JAN HOLD
STANDARD OVERNIGHT
HLD
MAFA
TX-US LBB

276 1569



Page 4 156148-434

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 01.06.2021 12.42.00 PM

Work Order #: 683560

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 01.06.2021

Checklist reviewed by:



Holly Taylor

Date: 01.07.2021

Certificate of Analysis Summary 685951



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14 Grandbanks

Project Id:

Date Received in Lab: Tue 01.26.2021 13:44

Contact: Daniel Dominquez

Report Date: 02.02.2021 11:25

Project Location:

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	685951-001	685951-002				
	Field Id:	HZ/B	HZ/B				
	Depth:		1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	01.18.2021 00:00	01.18.2021 00:00				
BTEX by EPA 8021B	Extracted:	01.28.2021 08:00	01.28.2021 08:00				
	Analyzed:	01.29.2021 05:19	01.29.2021 07:01				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00200 0.00200	<0.00199 0.00199				
Toluene		<0.00200 0.00200	<0.00199 0.00199				
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199				
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398				
o-Xylene		<0.00200 0.00200	<0.00199 0.00199				
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199				
Total BTEX		<0.00200 0.00200	<0.00199 0.00199				
Chloride by EPA 300	Extracted:	01.27.2021 14:40	01.27.2021 14:40				
	Analyzed:	01.27.2021 23:31	01.27.2021 23:47				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		8.84 4.95	7.93 5.04				
TPH By SW8015 Mod	Extracted:	01.29.2021 17:00	01.29.2021 17:00				
	Analyzed:	01.30.2021 08:05	01.30.2021 08:27				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8				
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8				
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8				
Total TPH		<49.9 49.9	<49.8 49.8				

BRL - Below Reporting Limit

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

Analytical Report 685951

for

Hungry Horse LLC

Project Manager: Daniel Dominquez

ARU #14 Grandbanks

02.02.2021

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 (2020-014), 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 (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02.02.2021

Project Manager: **Daniel Dominquez**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **685951**

ARU #14 Grandbanks

Project Address:

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) 685951. 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. 685951 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 "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 685951

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
HZ/B	S	01.18.2021 00:00		685951-001
HZ/B	S	01.18.2021 00:00	1 ft	685951-002



CASE NARRATIVE

Client Name: Hungry Horse LLC

Project Name: ARU #14 Grandbanks

Project ID:
Work Order Number(s): 685951

Report Date: 02.02.2021
Date Received: 01.26.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3149585 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7720478-1-BKS.



Certificate of Analytical Results 685951

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **HZ/B**
Lab Sample Id: 685951-001

Matrix: Soil
Date Collected: 01.18.2021 00:00

Date Received: 01.26.2021 13:44

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.27.2021 14:40

% Moisture:
Basis: Wet Weight

Seq Number: 3149199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.84	4.95	mg/kg	01.27.2021 23:31		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.29.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	01.30.2021 08:05	
o-Terphenyl	84-15-1	118	%	70-130	01.30.2021 08:05	



Certificate of Analytical Results 685951

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **HZ/B**
Lab Sample Id: 685951-001

Matrix: Soil
Date Collected: 01.18.2021 00:00

Date Received: 01.26.2021 13:44

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.28.2021 08:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149283

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.29.2021 05:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.29.2021 05:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	01.29.2021 05:19		
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.29.2021 05:19		



Certificate of Analytical Results 685951

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **HZ/B**
Lab Sample Id: 685951-002

Matrix: Soil
Date Collected: 01.18.2021 00:00

Date Received: 01.26.2021 13:44
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 01.27.2021 14:40

% Moisture:
Basis: Wet Weight

Seq Number: 3149199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.93	5.04	mg/kg	01.27.2021 23:47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 01.29.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.30.2021 08:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.30.2021 08:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.30.2021 08:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.30.2021 08:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	01.30.2021 08:27	
o-Terphenyl	84-15-1	121	%	70-130	01.30.2021 08:27	



Certificate of Analytical Results 685951

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **HZ/B**
Lab Sample Id: 685951-002

Matrix: Soil
Date Collected: 01.18.2021 00:00

Date Received: 01.26.2021 13:44
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 01.28.2021 08:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149283

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.29.2021 07:01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.29.2021 07:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.29.2021 07:01	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.29.2021 07:01	

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

ARU #14 Grandbanks

Analytical Method: Chloride by EPA 300

Seq Number: 3149199

MB Sample Id: 7720147-1-BLK

Matrix: Solid

LCS Sample Id: 7720147-1-BKS

Prep Method: E300P

Date Prep: 01.27.2021

LCSD Sample Id: 7720147-1-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	252	101	252	101	90-110	0	20	mg/kg	01.27.2021 22:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3149199

Parent Sample Id: 685950-020

Matrix: Soil

MS Sample Id: 685950-020 S

Prep Method: E300P

Date Prep: 01.27.2021

MSD Sample Id: 685950-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	33.5	248	290	103	289	103	90-110	0	20	mg/kg	01.27.2021 22:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3149199

Parent Sample Id: 685951-001

Matrix: Soil

MS Sample Id: 685951-001 S

Prep Method: E300P

Date Prep: 01.27.2021

MSD Sample Id: 685951-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.84	248	250	97	249	97	90-110	0	20	mg/kg	01.27.2021 23:37	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3149585

MB Sample Id: 7720478-1-BLK

Matrix: Solid

LCS Sample Id: 7720478-1-BKS

Prep Method: SW8015P

Date Prep: 01.29.2021

LCSD Sample Id: 7720478-1-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	967	97	923	92	70-130	5	20	mg/kg	01.30.2021 00:06	
Diesel Range Organics (DRO)	<50.0	1000	973	97	920	92	70-130	6	20	mg/kg	01.30.2021 00:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		105		97		70-130	%	01.30.2021 00:06
o-Terphenyl	118		132	**	125		70-130	%	01.30.2021 00:06

Analytical Method: TPH By SW8015 Mod

Seq Number: 3149585

Matrix: Solid

MB Sample Id: 7720478-1-BLK

Prep Method: SW8015P

Date Prep: 01.29.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.29.2021 23:44	

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

ARU #14 Grandbanks

Analytical Method: TPH By SW8015 Mod

Seq Number: 3149585

Parent Sample Id: 686158-001

Matrix: Soil

MS Sample Id: 686158-001 S

Prep Method: SW8015P

Date Prep: 01.29.2021

MSD Sample Id: 686158-001 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	997	890	89	879	88	70-130	1	20	mg/kg	01.30.2021 00:49	
Diesel Range Organics (DRO)	<49.9	997	811	81	818	82	70-130	1	20	mg/kg	01.30.2021 00:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		79		70-130	%	01.30.2021 00:49
o-Terphenyl	93		95		70-130	%	01.30.2021 00:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149283

MB Sample Id: 7720272-1-BLK

Matrix: Solid

LCS Sample Id: 7720272-1-BKS

Prep Method: SW5035A

Date Prep: 01.28.2021

LCSD Sample Id: 7720272-1-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	0.0801	80	0.0818	82	70-130	2	35	mg/kg	01.28.2021 22:30	
Toluene	<0.00200	0.100	0.0821	82	0.0833	83	70-130	1	35	mg/kg	01.28.2021 22:30	
Ethylbenzene	<0.00200	0.100	0.0834	83	0.0847	85	70-130	2	35	mg/kg	01.28.2021 22:30	
m,p-Xylenes	<0.00400	0.200	0.168	84	0.173	87	70-130	3	35	mg/kg	01.28.2021 22:30	
o-Xylene	<0.00200	0.100	0.0852	85	0.0885	89	70-130	4	35	mg/kg	01.28.2021 22:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		100		103		70-130	%	01.28.2021 22:30
4-Bromofluorobenzene	70		93		101		70-130	%	01.28.2021 22:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149283

Parent Sample Id: 685950-021

Matrix: Soil

MS Sample Id: 685950-021 S

Prep Method: SW5035A

Date Prep: 01.28.2021

MSD Sample Id: 685950-021 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	0.0752	75	0.0806	81	70-130	7	35	mg/kg	01.28.2021 23:21	
Toluene	0.00383	0.100	0.0804	77	0.0847	81	70-130	5	35	mg/kg	01.28.2021 23:21	
Ethylbenzene	<0.00200	0.100	0.0757	76	0.0803	80	70-130	6	35	mg/kg	01.28.2021 23:21	
m,p-Xylenes	<0.00400	0.200	0.154	77	0.163	82	70-130	6	35	mg/kg	01.28.2021 23:21	
o-Xylene	<0.00200	0.100	0.0772	77	0.0822	82	70-130	6	35	mg/kg	01.28.2021 23:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		70-130	%	01.28.2021 23:21
4-Bromofluorobenzene	101		110		70-130	%	01.28.2021 23:21

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) 755-0747, Delray Beach, FL (561) 889-6701
 Atlanta, GA (770) 449-8800

Work Order No.:

485951
48595244

www.xenco.com Page _____ of _____

Project Manager:	indisley NEVERTS	Bill to: (if different)	Lawlerian Management
Company Name:	HUNTER HORS E	Company Name:	arickard@lawlerianmanagement.com
Address:	PO Box 1058	Address:	PO Box 272
City, State ZIP:	Hobbs NM 88241	City, State ZIP:	Midland TX 79701
Phone:	432 241-2480	Email:	

Project Name:	ARV # 14	Turn Around	☒ Routine ☐ Rush	Pres. Code
Project Number:	Grandbanks	Due Date:		
Project Location:	Auston Pick	TAT starts the day received by the lab, if received by 4:30pm		
Sampler's Name:				
PO #:				

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No	Parameters
Received In tact:	☒ Yes	☐ No	Thermometer ID:	128			Chlorides
Cooler Custody Seals:	☒ Yes	☐ No	Correction Factor:	1.5			TPH
Sample Custody Seals:	Yes	No	Temperature Reading:	1/2			BTEX
Total Containers:			Corrected Temperature:	1.7			

ANALYSIS REQUEST	None	NO	DI Water	H ₂ O
	Cool	MeOH	Me	
	HCL	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	

Work Order Comments	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

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	

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
[Signature]	[Signature]	1-25-21 12:3	[Signature]	[Signature]	12/4/21 13:44

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 01.26.2021 01.44.00 PM

Work Order #: 685951

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 01.26.2021

Checklist reviewed by:



Holly Taylor

Date: 01.27.2021

Certificate of Analysis Summary 690842



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14 Grandbanks

Project Id:

Contact: Lindsey Nevels

Project Location: ADRU #14

Date Received in Lab: Mon 03.08.2021 12:31

Report Date: 03.16.2021 10:54

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	690842-001	690842-002	690842-003	690842-004		
	<i>Field Id:</i>	SW1	SW2	SW3	SW4		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00		
BTEX by EPA 8021B	<i>Extracted:</i>	03.13.2021 08:20	03.13.2021 08:20	03.13.2021 08:20	03.13.2021 08:20		
	<i>Analyzed:</i>	03.14.2021 04:41	03.14.2021 05:01	03.14.2021 05:22	03.14.2021 05:43		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00396 0.00396	<0.00398 0.00398		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199		
Chloride by EPA 300	<i>Extracted:</i>	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15		
	<i>Analyzed:</i>	03.11.2021 14:11	03.11.2021 14:17	03.11.2021 14:22	03.11.2021 14:28		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		13.8 4.96	19.0 5.02	16.5 5.03	26.0 4.98		
TPH By SW8015 Mod	<i>Extracted:</i>	03.12.2021 16:00	03.12.2021 16:00	03.12.2021 16:00	03.12.2021 16:00		
	<i>Analyzed:</i>	03.12.2021 23:27	03.12.2021 23:49	03.13.2021 00:10	03.13.2021 00:31		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		236 X 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		
Diesel Range Organics (DRO)		1110 X 49.8	95.1 50.0	<50.0 50.0	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		86.1 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		
Total TPH		1430 49.8	95.1 50.0	<50.0 50.0	<50.0 50.0		

BRL - Below Reporting Limit

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

Analytical Report 690842

for

Hungry Horse LLC

Project Manager: Lindsey Nevels

ARU #14 Grandbanks

03.16.2021

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 (2020-014), 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 (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



03.16.2021

Project Manager: **Lindsey Nevels**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **690842**

ARU #14 Grandbanks

Project Address: ADRU #14

Lindsey Nevels:

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) 690842. 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. 690842 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 "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 690842****Hungry Horse LLC, Hobbs, NM**

ARU #14 Grandbanks

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW1	S	03.05.2021 00:00		690842-001
SW2	S	03.05.2021 00:00		690842-002
SW3	S	03.05.2021 00:00		690842-003
SW4	S	03.05.2021 00:00		690842-004



CASE NARRATIVE

Client Name: Hungry Horse LLC

Project Name: ARU #14 Grandbanks

Project ID:
Work Order Number(s): 690842

Report Date: 03.16.2021
Date Received: 03.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3153683 TPH By SW8015 Mod

Lab Sample ID 690842-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO), Gasoline Range Hydrocarbons (GRO) recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 690842-001, -002, -003, -004.

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



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW1**
Lab Sample Id: 690842-001

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	4.96	mg/kg	03.11.2021 14:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.12.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153683

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	236	49.8	mg/kg	03.12.2021 23:27	X	1
Diesel Range Organics (DRO)	C10C28DRO	1110	49.8	mg/kg	03.12.2021 23:27	X	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	86.1	49.8	mg/kg	03.12.2021 23:27		1
Total TPH	PHC635	1430	49.8	mg/kg	03.12.2021 23:27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-130	03.12.2021 23:27		
o-Terphenyl	84-15-1	92	%	70-130	03.12.2021 23:27		



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW1**
Lab Sample Id: 690842-001

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 08:20

% Moisture:
Basis: Wet Weight

Seq Number: 3153568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.14.2021 04:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.14.2021 04:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.14.2021 04:41	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.14.2021 04:41	



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW2**
Lab Sample Id: 690842-002

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.0	5.02	mg/kg	03.11.2021 14:17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.12.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153683

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.12.2021 23:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	95.1	50.0	mg/kg	03.12.2021 23:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.12.2021 23:49	U	1
Total TPH	PHC635	95.1	50.0	mg/kg	03.12.2021 23:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	03.12.2021 23:49	
o-Terphenyl	84-15-1	100	%	70-130	03.12.2021 23:49	



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW2**
Lab Sample Id: 690842-002

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 08:20

% Moisture:
Basis: Wet Weight

Seq Number: 3153568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.14.2021 05:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.2021 05:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	03.14.2021 05:01		
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.14.2021 05:01		



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW3**
Lab Sample Id: 690842-003

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.5	5.03	mg/kg	03.11.2021 14:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.12.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153683

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.13.2021 00:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.13.2021 00:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.13.2021 00:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.13.2021 00:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	03.13.2021 00:10	
o-Terphenyl	84-15-1	96	%	70-130	03.13.2021 00:10	



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW3**
Lab Sample Id: 690842-003

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 08:20

% Moisture:
Basis: Wet Weight

Seq Number: 3153568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.14.2021 05:22	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.14.2021 05:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.14.2021 05:22	
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.14.2021 05:22	



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW4**
Lab Sample Id: 690842-004

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.0	4.98	mg/kg	03.11.2021 14:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.12.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153683

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.13.2021 00:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.13.2021 00:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.13.2021 00:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.13.2021 00:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	03.13.2021 00:31	
o-Terphenyl	84-15-1	87	%	70-130	03.13.2021 00:31	



Certificate of Analytical Results 690842

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **SW4**
Lab Sample Id: 690842-004

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 08:20

% Moisture:
Basis: Wet Weight

Seq Number: 3153568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.14.2021 05:43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.14.2021 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.14.2021 05:43	
1,4-Difluorobenzene	540-36-3	101	%	70-130	03.14.2021 05:43	

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

ARU #14 Grandbanks

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

MB Sample Id: 7723064-1-BLK

Matrix: Solid

LCS Sample Id: 7723064-1-BKS

Prep Method: E300P

Date Prep: 03.11.2021

LCSD Sample Id: 7723064-1-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	253	101	254	102	90-110	0	20	mg/kg	03.11.2021 12:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

Parent Sample Id: 690834-033

Matrix: Soil

MS Sample Id: 690834-033 S

Prep Method: E300P

Date Prep: 03.11.2021

MSD Sample Id: 690834-033 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	524	253	768	96	767	96	90-110	0	20	mg/kg	03.11.2021 13:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

Parent Sample Id: 690842-004

Matrix: Soil

MS Sample Id: 690842-004 S

Prep Method: E300P

Date Prep: 03.11.2021

MSD Sample Id: 690842-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.0	249	292	107	292	107	90-110	0	20	mg/kg	03.11.2021 14:33	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153683

MB Sample Id: 7723247-1-BLK

Matrix: Solid

LCS Sample Id: 7723247-1-BKS

Prep Method: SW8015P

Date Prep: 03.12.2021

LCSD Sample Id: 7723247-1-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	961	96	965	97	70-130	0	20	mg/kg	03.12.2021 21:39	
Diesel Range Organics (DRO)	<50.0	1000	949	95	952	95	70-130	0	20	mg/kg	03.12.2021 21:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		111		111		70-130	%	03.12.2021 21:39
o-Terphenyl	90		91		91		70-130	%	03.12.2021 21:39

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153683

Matrix: Solid

MB Sample Id: 7723247-1-BLK

Prep Method: SW8015P

Date Prep: 03.12.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.12.2021 21:18	

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

ARU #14 Grandbanks

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153683

Parent Sample Id: 690842-001

Matrix: Soil

MS Sample Id: 690842-001 S

Prep Method: SW8015P

Date Prep: 03.12.2021

MSD Sample Id: 690842-001 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)	236	998	868	63	890	66	70-130	3	20	mg/kg	03.12.2021 22:44	X
Diesel Range Organics (DRO)	1110	998	1550	44	1630	52	70-130	5	20	mg/kg	03.12.2021 22:44	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		107		70-130	%	03.12.2021 22:44
o-Terphenyl	80		77		70-130	%	03.12.2021 22:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153568

MB Sample Id: 7723264-1-BLK

Matrix: Solid

LCS Sample Id: 7723264-1-BKS

Prep Method: SW5035A

Date Prep: 03.13.2021

LCSD Sample Id: 7723264-1-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	0.109	109	0.118	118	70-130	8	35	mg/kg	03.13.2021 19:08	
Toluene	<0.00200	0.100	0.103	103	0.112	112	70-130	8	35	mg/kg	03.13.2021 19:08	
Ethylbenzene	<0.00200	0.100	0.101	101	0.111	111	70-130	9	35	mg/kg	03.13.2021 19:08	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.226	113	70-130	11	35	mg/kg	03.13.2021 19:08	
o-Xylene	<0.00200	0.100	0.100	100	0.110	110	70-130	10	35	mg/kg	03.13.2021 19:08	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		105		105		70-130	%	03.13.2021 19:08
4-Bromofluorobenzene	115		103		108		70-130	%	03.13.2021 19:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153568

Parent Sample Id: 690945-058

Matrix: Soil

MS Sample Id: 690945-058 S

Prep Method: SW5035A

Date Prep: 03.13.2021

MSD Sample Id: 690945-058 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	0.0869	88	0.0812	81	70-130	7	35	mg/kg	03.13.2021 19:49	
Toluene	<0.00198	0.0992	0.0830	84	0.0858	86	70-130	3	35	mg/kg	03.13.2021 19:49	
Ethylbenzene	<0.00198	0.0992	0.0887	89	0.0813	81	70-130	9	35	mg/kg	03.13.2021 19:49	
m,p-Xylenes	<0.00397	0.198	0.169	85	0.155	78	70-130	9	35	mg/kg	03.13.2021 19:49	
o-Xylene	<0.00198	0.0992	0.0853	86	0.0700	70	70-130	20	35	mg/kg	03.13.2021 19:49	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	03.13.2021 19:49
4-Bromofluorobenzene	102		100		70-130	%	03.13.2021 19:49

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) 302-0300, San Antonio, TX (210) 506-3334
Midland, TX (432) 304-5440, EL Paso, TX (915) 956-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (505) 988-3199, Phoenix, AZ (480) 335-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 690843

www.xenco.com Page ____ of ____

Project Manager:	Lindsey Nevels	Bill to: (if different)	Cambrlan Management
Company Name:	Hungry Horse	Company Name:	Arickand@camblanmgmt.com
Address:	PO Box 1058	Address:	PO Box 272
City, State ZIP:	Hobbs, NM 88241	City, State ZIP:	Midland, Tx 79701
Phone:	432-241-2480	Email:	pm@hungry-horse.com

Work Order Comments Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ PST/UST ☐ TRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:	
--	--

[illegible]

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		TC1P / SPL	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U																
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 \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																				
Hg: 1631 / 245.1 / 7470 / 7471																																				

ORIGIN ID: H0BA (575) 392-7550

* MAIL SERVICES ETC
4000 N GRIMESHOBBS, NM 88240
UNITED STATES USSHIP DATE: 05MAR21
ACTWGT: 35.00 LB MAN
CAD: 0103352/CAFE3313
DIMS: 23x14x13 IN

BILL RECIPIENT

TO XENCO HOLD FOR PICKUP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH

MIDLAND TX 79711

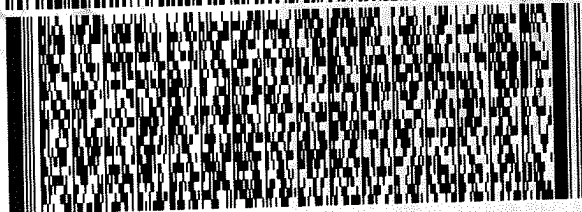
(432) 704-5440

REF:

DEPT:

INV:

PO:

FedEx
Express

J191219820014V

TRK# 9401 5656 6078

0201

SATURDAY HOLD
PRIORITY OVERNIGHT
HLD

41 MAFA

MAFA
TX-US LBB

P&H 156145-04 10 230 0319



Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 03.08.2021 12.31.00 PM

Work Order #: 690842

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 03.08.2021

Checklist reviewed by:



Holly Taylor

Date: 03.11.2021



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14 Grandbanks

Project Id:

Date Received in Lab: Mon 03.08.2021 12:31

Contact: Lindsey Nevels

Report Date: 03.15.2021 17:09

Project Location: ADRU #14

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	690845-001	690845-002	690845-003	690845-004	690845-005	690845-006
	<i>Field Id:</i>	FL1	FL2	FL3	FL4	FL5	FL6
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	03.13.2021 08:20	03.13.2021 10:00	03.13.2021 10:00	03.13.2021 10:00	03.13.2021 10:00	03.13.2021 10:00
	<i>Analyzed:</i>	03.14.2021 06:03	03.14.2021 09:28	03.14.2021 09:49	03.14.2021 10:10	03.14.2021 10:30	03.14.2021 10:51
	<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	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00403 0.00403	<0.00398 0.00398	<0.00402 0.00402	<0.00400 0.00400	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15
	<i>Analyzed:</i>	03.11.2021 14:44	03.11.2021 14:50	03.11.2021 15:06	03.11.2021 15:12	03.11.2021 15:17	03.11.2021 15:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13.5 4.95	<4.97 4.97	12.4 4.97	15.1 4.97	16.7 5.04	18.4 4.98
TPH By SW8015 Mod	<i>Extracted:</i>	03.09.2021 17:00	03.09.2021 17:00	03.09.2021 17:00	03.09.2021 17:00	03.09.2021 17:00	03.09.2021 17:00
	<i>Analyzed:</i>	03.09.2021 21:57	03.09.2021 23:00	03.09.2021 23:21	03.09.2021 23:42	03.10.2021 00:03	03.10.2021 00:24
	<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	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9

BRL - Below Reporting Limit

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



Hungry Horse LLC, Hobbs, NM

Project Name: ARU #14 Grandbanks

Project Id:

Contact: Lindsey Nevels

Project Location: ADRU #14

Date Received in Lab: Mon 03.08.2021 12:31

Report Date: 03.15.2021 17:09

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	690845-007	690845-008	690845-009			
	Field Id:	FL7	FL8	FL9			
	Depth:	3- ft	3- ft	3- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	03.05.2021 00:00	03.05.2021 00:00	03.05.2021 00:00			
BTEX by EPA 8021B	Extracted:	03.13.2021 10:00	03.13.2021 10:00	03.13.2021 10:00			
	Analyzed:	03.14.2021 11:11	03.14.2021 11:32	03.14.2021 11:53			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
m,p-Xylenes		<0.00397 0.00397	<0.00403 0.00403	<0.00399 0.00399			
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	03.11.2021 12:15	03.11.2021 12:15	03.11.2021 12:15			
	Analyzed:	03.11.2021 15:28	03.11.2021 15:34	03.11.2021 15:40			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		<5.00 5.00	13.9 5.00	16.2 5.00			
Chloride		<5.00 5.00	13.9 5.00	16.2 5.00			
TPH By SW8015 Mod	Extracted:	03.09.2021 17:00	03.09.2021 17:00	03.09.2021 17:00			
	Analyzed:	03.10.2021 00:45	03.10.2021 01:06	03.10.2021 01:27			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0			

BRL - Below Reporting Limit

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

Analytical Report 690845

for

Hungry Horse LLC

Project Manager: Lindsey Nevels

ARU #14 Grandbanks

03.15.2021

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 (2020-014), 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 (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



03.15.2021

Project Manager: **Lindsey Nevels**

Hungry Horse LLC

P. O. Box 1058

Hobbs, NM 88241

Reference: Eurofins Xenco, LLC Report No(s): **690845**

ARU #14 Grandbanks

Project Address: ADRU #14

Lindsey Nevels:

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) 690845. 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. 690845 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 "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 690845****Hungry Horse LLC, Hobbs, NM**

ARU #14 Grandbanks

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL1	S	03.05.2021 00:00	3 ft	690845-001
FL2	S	03.05.2021 00:00	3 ft	690845-002
FL3	S	03.05.2021 00:00	3 ft	690845-003
FL4	S	03.05.2021 00:00	3 ft	690845-004
FL5	S	03.05.2021 00:00	3 ft	690845-005
FL6	S	03.05.2021 00:00	3 ft	690845-006
FL7	S	03.05.2021 00:00	3 ft	690845-007
FL8	S	03.05.2021 00:00	3 ft	690845-008
FL9	S	03.05.2021 00:00	3 ft	690845-009



CASE NARRATIVE

Client Name: Hungry Horse LLC

Project Name: ARU #14 Grandbanks

Project ID:
Work Order Number(s): 690845

Report Date: 03.15.2021
Date Received: 03.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL1**
Lab Sample Id: 690845-001

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.5	4.95	mg/kg	03.11.2021 14:44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.09.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.2021 21:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.09.2021 21:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.09.2021 21:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.09.2021 21:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	03.09.2021 21:57	
o-Terphenyl	84-15-1	84	%	70-130	03.09.2021 21:57	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL1**
Lab Sample Id: 690845-001

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 08:20

% Moisture:
Basis: Wet Weight

Seq Number: 3153568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.14.2021 06:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.2021 06:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.14.2021 06:03	
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.14.2021 06:03	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL2**
Lab Sample Id: 690845-002

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	03.11.2021 14:50	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.09.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.2021 23:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.09.2021 23:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.09.2021 23:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.09.2021 23:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	03.09.2021 23:00	
o-Terphenyl	84-15-1	89	%	70-130	03.09.2021 23:00	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL2**
Lab Sample Id: 690845-002

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.14.2021 09:28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.14.2021 09:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	03.14.2021 09:28	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.14.2021 09:28	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL3** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-003 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.4	4.97	mg/kg	03.11.2021 15:06		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.09.2021 23:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.09.2021 23:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.09.2021 23:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.09.2021 23:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-130	03.09.2021 23:21		
o-Terphenyl	84-15-1	82	%	70-130	03.09.2021 23:21		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL3**
Lab Sample Id: 690845-003

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.14.2021 09:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.14.2021 09:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.14.2021 09:49		
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.14.2021 09:49		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL4** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-004 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.1	4.97	mg/kg	03.11.2021 15:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.2021 23:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.09.2021 23:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.09.2021 23:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.09.2021 23:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	03.09.2021 23:42	
o-Terphenyl	84-15-1	86	%	70-130	03.09.2021 23:42	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL4**
Lab Sample Id: 690845-004

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.14.2021 10:10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.14.2021 10:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.14.2021 10:10	
1,4-Difluorobenzene	540-36-3	97	%	70-130	03.14.2021 10:10	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL5** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-005 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.7	5.04	mg/kg	03.11.2021 15:17		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.10.2021 00:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2021 00:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2021 00:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.10.2021 00:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-130	03.10.2021 00:03		
o-Terphenyl	84-15-1	80	%	70-130	03.10.2021 00:03		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL5**
Lab Sample Id: 690845-005

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.14.2021 10:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.2021 10:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.14.2021 10:30		
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.14.2021 10:30		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL6** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-006 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.4	4.98	mg/kg	03.11.2021 15:23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.10.2021 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2021 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2021 00:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.10.2021 00:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	03.10.2021 00:24	
o-Terphenyl	84-15-1	76	%	70-130	03.10.2021 00:24	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL6**
Lab Sample Id: 690845-006

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.14.2021 10:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.2021 10:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.14.2021 10:51	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.14.2021 10:51	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL7**
Lab Sample Id: 690845-007

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 03.11.2021 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3153429

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.11.2021 15:28	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 03.09.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2021 00:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2021 00:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2021 00:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2021 00:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	03.10.2021 00:45	
o-Terphenyl	84-15-1	89	%	70-130	03.10.2021 00:45	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL7**
Lab Sample Id: 690845-007

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.14.2021 11:11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.14.2021 11:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.14.2021 11:11	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.14.2021 11:11	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL8** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-008 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	5.00	mg/kg	03.11.2021 15:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.10.2021 01:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2021 01:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2021 01:06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.10.2021 01:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-130	03.10.2021 01:06		
o-Terphenyl	84-15-1	78	%	70-130	03.10.2021 01:06		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL8**
Lab Sample Id: 690845-008

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.14.2021 11:32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.14.2021 11:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.14.2021 11:32	
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.14.2021 11:32	



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL9** Matrix: Soil Date Received: 03.08.2021 12:31
 Lab Sample Id: 690845-009 Date Collected: 03.05.2021 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 03.11.2021 12:15 % Moisture:
 Seq Number: 3153429 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.2	5.00	mg/kg	03.11.2021 15:40		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 03.09.2021 17:00 % Moisture:
 Seq Number: 3153145 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2021 01:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2021 01:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2021 01:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2021 01:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-130	03.10.2021 01:27		
o-Terphenyl	84-15-1	82	%	70-130	03.10.2021 01:27		



Certificate of Analytical Results 690845

Hungry Horse LLC, Hobbs, NM

ARU #14 Grandbanks

Sample Id: **FL9**
Lab Sample Id: 690845-009

Matrix: Soil
Date Collected: 03.05.2021 00:00

Date Received: 03.08.2021 12:31
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 03.13.2021 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3153569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.14.2021 11:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.2021 11:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.14.2021 11:53		
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.14.2021 11:53		



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

ARU #14 Grandbanks

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

MB Sample Id: 7723064-1-BLK

Matrix: Solid

LCS Sample Id: 7723064-1-BKS

Prep Method: E300P

Date Prep: 03.11.2021

LCSD Sample Id: 7723064-1-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	253	101	254	102	90-110	0	20	mg/kg	03.11.2021 12:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

Parent Sample Id: 690834-033

Matrix: Soil

MS Sample Id: 690834-033 S

Prep Method: E300P

Date Prep: 03.11.2021

MSD Sample Id: 690834-033 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	524	253	768	96	767	96	90-110	0	20	mg/kg	03.11.2021 13:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3153429

Parent Sample Id: 690842-004

Matrix: Soil

MS Sample Id: 690842-004 S

Prep Method: E300P

Date Prep: 03.11.2021

MSD Sample Id: 690842-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.0	249	292	107	292	107	90-110	0	20	mg/kg	03.11.2021 14:33	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153145

MB Sample Id: 7722925-1-BLK

Matrix: Solid

LCS Sample Id: 7722925-1-BKS

Prep Method: SW8015P

Date Prep: 03.09.2021

LCSD Sample Id: 7722925-1-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	1100	110	1030	103	70-130	7	20	mg/kg	03.09.2021 21:15	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	984	98	70-130	5	20	mg/kg	03.09.2021 21:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		105		96		70-130	%	03.09.2021 21:15
o-Terphenyl	96		84		83		70-130	%	03.09.2021 21:15

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153145

Matrix: Solid

MB Sample Id: 7722925-1-BLK

Prep Method: SW8015P

Date Prep: 03.09.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.09.2021 20:54	

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

ARU #14 Grandbanks

Analytical Method: TPH By SW8015 Mod

Seq Number: 3153145

Parent Sample Id: 690845-001

Matrix: Soil

MS Sample Id: 690845-001 S

Prep Method: SW8015P

Date Prep: 03.09.2021

MSD Sample Id: 690845-001 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	1040	104	983	98	70-130	6	20	mg/kg	03.09.2021 22:18	
Diesel Range Organics (DRO)	<49.9	998	952	95	910	91	70-130	5	20	mg/kg	03.09.2021 22:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		88		70-130	%	03.09.2021 22:18
o-Terphenyl	73		70		70-130	%	03.09.2021 22:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153568

MB Sample Id: 7723264-1-BLK

Matrix: Solid

LCS Sample Id: 7723264-1-BKS

Prep Method: SW5035A

Date Prep: 03.13.2021

LCSD Sample Id: 7723264-1-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	0.109	109	0.118	118	70-130	8	35	mg/kg	03.13.2021 19:08	
Toluene	<0.00200	0.100	0.103	103	0.112	112	70-130	8	35	mg/kg	03.13.2021 19:08	
Ethylbenzene	<0.00200	0.100	0.101	101	0.111	111	70-130	9	35	mg/kg	03.13.2021 19:08	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.226	113	70-130	11	35	mg/kg	03.13.2021 19:08	
o-Xylene	<0.00200	0.100	0.100	100	0.110	110	70-130	10	35	mg/kg	03.13.2021 19:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		105		105		70-130	%	03.13.2021 19:08
4-Bromofluorobenzene	115		103		108		70-130	%	03.13.2021 19:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153569

MB Sample Id: 7723265-1-BLK

Matrix: Solid

LCS Sample Id: 7723265-1-BKS

Prep Method: SW5035A

Date Prep: 03.13.2021

LCSD Sample Id: 7723265-1-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	0.100	100	0.107	107	70-130	7	35	mg/kg	03.14.2021 07:05	
Toluene	<0.00200	0.100	0.0939	94	0.102	102	70-130	8	35	mg/kg	03.14.2021 07:05	
Ethylbenzene	<0.00200	0.100	0.0911	91	0.0998	100	70-130	9	35	mg/kg	03.14.2021 07:05	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.196	98	70-130	8	35	mg/kg	03.14.2021 07:05	
o-Xylene	<0.00200	0.100	0.0895	90	0.0952	95	70-130	6	35	mg/kg	03.14.2021 07:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		100		110		70-130	%	03.14.2021 07:05
4-Bromofluorobenzene	117		98		104		70-130	%	03.14.2021 07:05

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

ARU #14 Grandbanks

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153568

Parent Sample Id: 690945-058

Matrix: Soil

MS Sample Id: 690945-058 S

Prep Method: SW5035A

Date Prep: 03.13.2021

MSD Sample Id: 690945-058 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	0.0869	88	0.0812	81	70-130	7	35	mg/kg	03.13.2021 19:49	
Toluene	<0.00198	0.0992	0.0830	84	0.0858	86	70-130	3	35	mg/kg	03.13.2021 19:49	
Ethylbenzene	<0.00198	0.0992	0.0887	89	0.0813	81	70-130	9	35	mg/kg	03.13.2021 19:49	
m,p-Xylenes	<0.00397	0.198	0.169	85	0.155	78	70-130	9	35	mg/kg	03.13.2021 19:49	
o-Xylene	<0.00198	0.0992	0.0853	86	0.0700	70	70-130	20	35	mg/kg	03.13.2021 19:49	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	03.13.2021 19:49
4-Bromofluorobenzene	102		100		70-130	%	03.13.2021 19:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3153569

Parent Sample Id: 690845-002

Matrix: Soil

MS Sample Id: 690845-002 S

Prep Method: SW5035A

Date Prep: 03.13.2021

MSD Sample Id: 690845-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0941	95	0.0971	97	70-130	3	35	mg/kg	03.14.2021 07:46	
Toluene	<0.00198	0.0990	0.0843	85	0.0874	87	70-130	4	35	mg/kg	03.14.2021 07:46	
Ethylbenzene	<0.00198	0.0990	0.0810	82	0.0840	84	70-130	4	35	mg/kg	03.14.2021 07:46	
m,p-Xylenes	<0.00396	0.198	0.159	80	0.166	83	70-130	4	35	mg/kg	03.14.2021 07:46	
o-Xylene	<0.00198	0.0990	0.0892	90	0.0824	82	70-130	8	35	mg/kg	03.14.2021 07:46	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	03.14.2021 07:46
4-Bromofluorobenzene	97		99		70-130	%	03.14.2021 07:46

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:

690845

www.xenco.com

Page 1 of 1

Project Manager:	Lindsey Nevels	Bill to: (if different)	Cambrion Management
Company Name:	Hungry Horse	Company Name:	Arickard@cambrionmgmt.com
Address:	PO Box 1058	Address:	PO Box 272
City, State ZIP:	Hobbs, NM 88241	City, State ZIP:	Midland, TX 79701
Phone:	432 241-2480	Email:	pm@hungry-horse.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund State of Project:	
Reporting Level II ☐	Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐	AdAPT ☐ Other: ☐

Project Name:	ARU #14	Turn Around	☒ Routine ☐ Rush	Pres. Code	ANALYSIS REQUEST													Preservative Codes		
Project Number:	Grandbanks																	None: NO	DI Water: H ₂ O	
Project Location:	ARU #14	Due Date:																Cool: Cool	MeOH: Me	
Sampler's Name:	Bradley Wells	TAT starts the day received by the lab, if received by 4:30pm																HCL: HC	HNO ₃ : HN	
PO #:		Temp Blank:	Yes ☒ No ☐	Well Ice:	Yes ☒ No ☐														H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Received In tact:	Yes ☒ No ☐	Thermometer ID:	128														H ₃ PO ₄ : HP	
Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	0.5														NaHSO ₄ : NABIS			
Sample Custody Seals:	Yes ☒ No ☐	Temperature Reading:	3.2														Na ₂ S ₂ O ₃ : NaSO ₃			
Total Containers:	Yes ☒ No ☐	Corrected Temperature:	3.7														Zn Acetate+NaOH: Zn			
																	NaOH+Ascorbic Acid: SAPC			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont														Sample Comments
FL1		3/5/2021		3'			X	X	X											
FL2		3/5/2021		3'			X	X	X											
FL3		3/5/2021		3'			X	X	X											
FL4		3/5/2021		3'			X	X	X											
FL5		3/5/2021		3'			X	X	X											
FL6		3/5/2021		3'			X	X	X											
FL7		3/5/2021		3'			X	X	X											
FL8		3/5/2021		3'			X	X	X											
FL9		3/5/2021		3'			X	X	X											

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

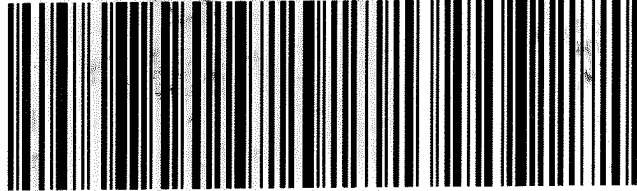
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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
<i>[Signature]</i>	<i>[Signature]</i>	2/5 2:00	<i>[Signature]</i>	<i>[Signature]</i>	3/6/21
					123

PAN # 150140-434 RPD EXP 03/10



41 MAF

TX-US LBB

MAFA

HLD

PRIORITY OVERNIGHT

SATURDAY HOLD

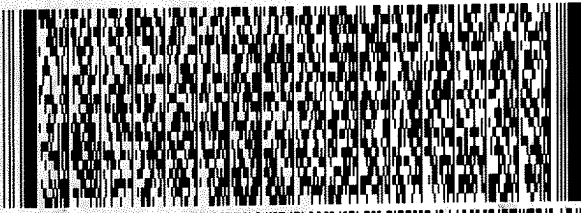
TRK# 9401 5656 6078

0201

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Express

J191219062001uv



DEPT

REF

INV

(432) 704-5440

MIDLAND TX 79711

3600 COUNTY ROAD 1276 SOUTH

FEDEX EXPRESS SHIP CENTER

FEDEX EXPRESS SHIP CENTER

XENCO HOLD FOR PICKUP

TO

HOBB, NM 88240

UNITED STATES US

MAIL SERVICES ETC

4000 N GRIMES

ORIGIN ID: H0BA (5/5) 392-/550

SHIP DATE: 05MAR21

ACTWGT: 35.00 LB MAN

CAD: 0103352/C0FE3313

DIMS: 23x14x13 IN

BILL RECIPIENT

565C3/RC39/D5A2

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Hungry Horse LLC

Date/ Time Received: 03.08.2021 12:31.00 PM

Work Order #: 690845

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 03.08.2021

Checklist reviewed by:



Holly Taylor

Date: 03.11.2021



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-642-1

Client Project/Site: ARU #1/Grandbanks

For:

Hungry Horse LLC
PO Box 1058
Hobbs, New Mexico 88241

Attn: Lindsey Nevels

A handwritten signature in black ink that reads "Holly Taylor".

Authorized for release by:
3/26/2021 5:31:29 PM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

LINKS

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results through

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Laboratory Job ID: 880-642-1

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Definitions/Glossary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Xenco, Midland

Case Narrative

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Job ID: 880-642-1**Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative
880-642-1****Receipt**

The sample was received on 3/24/2021 12:50 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Client Sample ID: SW1a

Lab Sample ID: 880-642-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29.9		4.99	mg/Kg	1		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Midland

Client Sample Results

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Client Sample ID: SW1a

Lab Sample ID: 880-642-1

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/24/21 12:50

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/24/21 16:24	03/25/21 02:04	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/24/21 16:24	03/25/21 02:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	03/24/21 16:24	03/25/21 02:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/24/21 16:24	03/25/21 02:04	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U ** *1	49.8	mg/Kg		03/24/21 17:20	03/25/21 02:28	1
Total TPH	<49.8	U	49.8	mg/Kg		03/24/21 17:20	03/25/21 02:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/24/21 17:20	03/25/21 02:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/24/21 17:20	03/25/21 02:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	03/24/21 17:20	03/25/21 02:28	1
o-Terphenyl	72		70 - 130	03/24/21 17:20	03/25/21 02:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.9		4.99	mg/Kg			03/26/21 11:26	1

Eurofins Xenco, Midland

Surrogate Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-642-1	SW1a	116	103
880-642-1 MS	SW1a	103	99
880-642-1 MSD	SW1a	104	101
LCS 880-821/1-A	Lab Control Sample	103	99
LCSD 880-821/2-A	Lab Control Sample Dup	104	96
MB 880-826/63	Method Blank	103	95
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-642-1	SW1a	75	72
890-372-A-1-F MS	Matrix Spike	93	83
890-372-A-1-G MSD	Matrix Spike Duplicate	92	82
LCS 880-798/2-A	Lab Control Sample	92	80
LCSD 880-798/3-A	Lab Control Sample Dup	111	100
MB 880-798/1-A	Method Blank	102	103
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

QC Sample Results

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 880-821/1-A

Matrix: Solid

Analysis Batch: 826

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1082		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1116		mg/Kg		112	70 - 130
Toluene	0.100	0.1091		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2263		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1118		mg/Kg		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-821/2-A

Matrix: Solid

Analysis Batch: 826

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 821

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1043		mg/Kg		104	70 - 130	4	35
Ethylbenzene	0.100	0.1115		mg/Kg		112	70 - 130	0	35
Toluene	0.100	0.1081		mg/Kg		108	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2277		mg/Kg		114	70 - 130	1	35
o-Xylene	0.100	0.1128		mg/Kg		113	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 880-642-1 MS

Matrix: Solid

Analysis Batch: 826

Client Sample ID: SW1a

Prep Type: Total/NA

Prep Batch: 821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U	0.100	0.1068		mg/Kg		107	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.1163		mg/Kg		116	70 - 130
Toluene	<0.00201	U	0.100	0.1119		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2379		mg/Kg		119	70 - 130
o-Xylene	<0.00201	U	0.100	0.1161		mg/Kg		116	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-642-1 MSD

Matrix: Solid

Analysis Batch: 826

Client Sample ID: SW1a

Prep Type: Total/NA

Prep Batch: 821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.100	0.09376		mg/Kg		93	70 - 130	13	35
Ethylbenzene	<0.00201	U	0.100	0.1013		mg/Kg		101	70 - 130	14	35
Toluene	<0.00201	U	0.100	0.09880		mg/Kg		98	70 - 130	12	35

Eurofins Xenco, Midland

QC Sample Results

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-642-1 MSD

Matrix: Solid

Analysis Batch: 826

Client Sample ID: SW1a

Prep Type: Total/NA

Prep Batch: 821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	<0.00402	U	0.201	0.2076		mg/Kg		103	70 - 130	14	35
o-Xylene	<0.00201	U	0.100	0.1008		mg/Kg		100	70 - 130	14	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	101		70 - 130								

Lab Sample ID: MB 880-826/63

Matrix: Solid

Analysis Batch: 826

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			03/25/21 01:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/25/21 01:35	1
Toluene	<0.00200	U	0.00200	mg/Kg			03/25/21 01:35	1
Total BTEX	<0.00200	U	0.00200	mg/Kg			03/25/21 01:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/25/21 01:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/25/21 01:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/25/21 01:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				03/25/21 01:35	1
1,4-Difluorobenzene (Surr)	95		70 - 130				03/25/21 01:35	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-798/1-A

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 798

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/21 09:20	03/24/21 21:09	1
Total TPH	<50.0	U	50.0	mg/Kg		03/24/21 09:20	03/24/21 21:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/21 09:20	03/24/21 21:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/21 09:20	03/24/21 21:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			03/24/21 09:20	03/24/21 21:09	1
o-Terphenyl	103		70 - 130			03/24/21 09:20	03/24/21 21:09	1

Lab Sample ID: LCS 880-798/2-A

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1140		mg/Kg		114	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-798/2-A

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	974.5		mg/Kg		97	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
o-Terphenyl	80		70 - 130								

Lab Sample ID: LCSD 880-798/3-A

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 798

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1444	*+ *1	mg/Kg		144	70 - 130	24	20
Diesel Range Organics (Over C10-C28)			1000	1117		mg/Kg		112	70 - 130	14	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	100		70 - 130								

Lab Sample ID: 890-372-A-1-F MS

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 798

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U ** *1	1000	1141		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	921.9		mg/Kg		92	70 - 130		

Lab Sample ID: 890-372-A-1-G MSD

Matrix: Solid

Analysis Batch: 792

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 798

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	998	1047		mg/Kg		105	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	923.6		mg/Kg		93	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
o-Terphenyl	82		70 - 130								

Eurofins Xenco, Midland

QC Sample Results

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-863/1-A

Matrix: Solid

Analysis Batch: 864

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/25/21 16:09	1

Lab Sample ID: LCS 880-863/2-A

Matrix: Solid

Analysis Batch: 864

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	269.1		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-863/3-A

Matrix: Solid

Analysis Batch: 864

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	269.8		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-607-A-16-F MS

Matrix: Solid

Analysis Batch: 864

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.57	F1	248	298.4	F1	mg/Kg		117	90 - 110

Lab Sample ID: 880-607-A-16-G MSD

Matrix: Solid

Analysis Batch: 864

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.57	F1	248	289.7	F1	mg/Kg		114	90 - 110	3	20

Eurofins Xenco, Midland

QC Association Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

GC VOA

Prep Batch: 821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Total/NA	Solid	5035	
LCS 880-821/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-821/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-642-1 MS	SW1a	Total/NA	Solid	5035	
880-642-1 MSD	SW1a	Total/NA	Solid	5035	

Analysis Batch: 826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Total/NA	Solid	8021B	821
MB 880-826/63	Method Blank	Total/NA	Solid	8021B	
LCS 880-821/1-A	Lab Control Sample	Total/NA	Solid	8021B	821
LCSD 880-821/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	821
880-642-1 MS	SW1a	Total/NA	Solid	8021B	821
880-642-1 MSD	SW1a	Total/NA	Solid	8021B	821

GC Semi VOA

Analysis Batch: 792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Total/NA	Solid	8015B NM	798
MB 880-798/1-A	Method Blank	Total/NA	Solid	8015B NM	798
LCS 880-798/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	798
LCSD 880-798/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	798
890-372-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	798
890-372-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	798

Prep Batch: 798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Total/NA	Solid	8015NM Prep	
MB 880-798/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-798/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-798/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-372-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-372-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Soluble	Solid	DI Leach	
MB 880-863/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-863/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-863/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-607-A-16-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-607-A-16-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-642-1	SW1a	Soluble	Solid	300.0	863
MB 880-863/1-A	Method Blank	Soluble	Solid	300.0	863
LCS 880-863/2-A	Lab Control Sample	Soluble	Solid	300.0	863
LCSD 880-863/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	863

Eurofins Xenco, Midland

QC Association Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

HPLC/IC (Continued)

Analysis Batch: 864 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-607-A-16-F MS	Matrix Spike	Soluble	Solid	300.0	863
880-607-A-16-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	863

1

2

3

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5

6

7

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9

10

11

12

13

14

15

Lab Chronicle

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Client Sample ID: SW1a
Date Collected: 03/17/21 00:00
Date Received: 03/24/21 12:50

Lab Sample ID: 880-642-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			821	03/24/21 16:24	MR	XM
Total/NA	Analysis	8021B		1	826	03/25/21 02:04	MR	XM
Total/NA	Prep	8015NM Prep			798	03/24/21 17:20	DM	XM
Total/NA	Analysis	8015B NM		1	792	03/25/21 02:28	AJ	XM
Soluble	Leach	DI Leach			863	03/25/21 11:20	CH	XM
Soluble	Analysis	300.0		1	864	03/26/21 11:26	WP	XM

Laboratory References:
XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

Sample Summary

Client: Hungry Horse LLC
Project/Site: ARU #1/Grandbanks

Job ID: 880-642-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
880-642-1	SW1a	Solid	03/17/21 00:00	03/24/21 12:50	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



Houston TX (2)
Midland TX
Hobbs NM (1)
Tampa, FL (81)



000-042 Chain of Custody

d) 509-3334
 ж) 794-1296
 и) 355-0900
 (561) 689-6701

Work Order No:

880-1048

3/26/2021

Project Manager	Lindsey Nevells	Bill to (if different)	Cambran Management
Company Name	Hungry Horse	Company Name	Arckand@cambramgmt.com
Address	PO Box 1058	Address	PO Box 272
City State ZIP	Hobbs, NM 88241	City State ZIP	Midland Tx 79701
Phone	432 241-2480	Email	pm@hungry-horse.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ brownfields ☐ RRC ☐ superfund ☐	
State of Project:	
Reporting Level II ☐ Level III ☐ PST/UST ☐ PRP ☐ Level IV ☐	
Deliverables EDD ☐ ADAPT ☐ Other: _____	

[illegible]

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.

Hg 1631 / 245.1 / 7470

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 <i>P. V. V. V. V.</i>	<i>Egon Buehler</i>	3-23-21 4 08	2	<i>P. V. V. V. V.</i>	3/24/21
3			4		
5			6		1:30

Login Sample Receipt Checklist

Client: Hungry Horse LLC

Job Number: 880-642-1

SDG Number:

Login Number: 642

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Site Assessment/Characterization

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

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

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

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

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

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

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Oil Conservation Division

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

Printed Name: Andy Rickard Title: Project ManagerSignature: *Andy Rickard* Date: 04/05/2021email: arickard@brianmgmt.com Telephone: 432-620-9181**OCD Only**

Received by: _____ Date: _____

Incident ID	
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Remediation Plan

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

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

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

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

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

Printed Name: Andy Rickard Title: Project Manager
Signature: Andy Rickard Date: 04/05/2021
email: arickard@cambridgemanagement.com Telephone: 432-620-9181

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	NAPP2035233416
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: Andy Rickard Title: Project Manager
Signature: Andy Rickard Date: 3/29/2021
email: arickard@cambrianmgmt.com Telephone: 432-620-9181

OCD Only

Received by: Cristina Eads Date: 04/07/2021

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: Cristina Eads Date: 07/22/2021
Printed Name: Cristina Eads Title: Environmental Specialist

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 23165

CONDITIONS

Operator: GRAND BANKS ENERGY CO 10 Desta Drive Midland, TX 79705	OGRID: 155471
	Action Number: 23165
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	7/22/2021