GRIZZLY ENERGY

Christmas #28 Battery

Closure Report

1RP-5132
Release Date: 07/09/2018
U/L H, Section 28, Township 22S, Range 37E
Lea County

04/23/2020
Prepared by:

Hungry-Horse, LLC
Oil & Gas Services

4024 Plains Highway
Lovington, NM 88260
Phone: (575) 390-6397

April 23, 2020

New Mexico Energy, Minerals & Natural Resources
NMOCD District II
C/O Mike Bratcher, Robert Hamlet & Victoria Venegas
811 S. First Street
Artesia, NM 88210

Grizzly Energy, LLC
C/O Carmen Pitt
4001 Penbrook, Suite 201
Odessa, TX 79762

Subject: Closure Request for Grizzly Energy, LLC – Christmas 28 Battery

To Whom It May Concern,

On behalf of Grizzly Energy, LLC, Hungry Horse, LLC (HH) has prepared this CLOSURE REPORT that describes the assessment, delineation and remediation for the release associated with the Christmas 28 Battery, dated 07/09/2018 with the RP #1RP-5132.

BACKGROUND

This site is located in Lea County, New Mexico. The release was located on July 9th, 2018. It was discovered by a NMOCD Inspector while checking surface casing pressures on wells. NMOCD notified Grizzly (Vanguard) of their findings. The automatic valve on the gas purchaser line closed causing the Heater Treater to pressure up and pop off through the relief valve. Oil sprayed an area inside of the lined containment and in front of the tank battery just outside of the containment. Approximately 11 bbls of oil was released and 10 bbls of standing fluid was recovered. The released fluid was also mixed with rain water. The soil outside of the containment was blended in place with new caliche to soak up the remaining fluid after the vacuum truck left the location. The area of impact was 3,242.025 sq. ft. The corresponding C-141 for the release is attached.

GROUND WATER INFORMATION

HH conducted a ground water study of the area. It has been determined that according to the New Mexico Office of the State Engineer, the average depth of ground water is 65' bgs (below ground surface). The top three (3) wells found are listed below:

CP 01657 POD1 – shows the well is set at 123'bgs but does not have a water level available.
CP 00503 – shows the well is set at 115'bgs and the water level is at 65'bgs.
CP 00911 – shows the well is set at 153'bgs but does not have a water level available.

The CP 00503 water well shows to be 1,143' from the Christmas 28 battery. With the data collected during the groundwater research, there are verifiable records of groundwater in the vicinity to the site mentioned above. Specific water well data is shown in the groundwater section of this report. Therefore, no eminent danger of ground water impact is found at this site. Please see the attached supporting groundwater data along with the groundwater map.

The Closure Criteria for Soils Impacted by a Release is below, based on the groundwater depth of 65'bgs, which falls under the 51'-100' depth category.

DGW	Constituent	Method	Limit
51'-100'	Chloride	EPA 300.0 OR SM4500 CLB	10,000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 METHOD 8015M	2,500 mg/kg
	GRO + DRO	EPA SW-846 METHOD 8015M	1,000 mg/kg
	BTEX	EPA SW-846 METHOD 8021B OR 8260B	50 mg/kg
	Benzene	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg

KARST MAPPING

The Karst Mapping data found for this site is located inside the low marked area. When the site was delineated, it was fully delineated to meet NMOCD standards for Karst areas. Please see attached map.

SITE DELINEATON

HH fully delineated the site vertically and horizontally starting on February 10th, 2020. The site was assessed, measured and photographed. After the one-call was cleared to proceed, delineation began using a backhoe to obtain samples. The soil was field tested for chlorides using both the chloride strip and titration method. A PID meter was also used to indicate concentrations of BTEX and hydrocarbons. Surface samples were taken and the sample log is below:

FIELD SAM	SURF
SP 1	5200
SP 2	2320
SP 3	440
SP 4	400

Soil samples were taken from four (4) samples points outside the lined containment. The area was sampled using 2' intervals for each sample point. All of the delineation samples were sent to Envirotech Analytical Laboratory for confirmation. **Please see the sample trending data sheet attached to this report for more information. Below you will find the vertical final sample depth data confirmed by Envirotech Laboratory as well as the field sample data.

Ver Sam ID	Depth	CHL mg/kg	BTEX mg/kg	GRO mg/kg	DRO mg/kg	E-Dro mg/kg	Ttl TPH mg/kg
SP 1	4'	106	ND	ND	ND	ND	ND
SP 2	4'	89.5	ND	ND	ND	ND	ND
SP 3	4'	62.3	ND	ND	ND	ND	ND
SP 4	4'	71.3	ND	ND	ND	ND	ND

Horizontal samples were then conducted to find the horizontal extent of the impacted area. Each sample was sampled in the field then taken to Envirotech Laboratory for confirmation. Below you will find the sidewall samples.

Hor Sam ID	Depth	CHL mg/kg	BTEX mg/kg	GRO mg/kg	DRO mg/kg	E-Dro mg/kg	Ttl TPH mg/kg
SW 1	2'	206	ND	ND	ND	ND	ND
SW 2	2'	91.5	ND	ND	ND	ND	ND
SW 3	2'	ND	ND	ND	ND	ND	ND
SW 4	2'	93.2	ND	ND	ND	ND	ND

REMEDIATION

Due to the low to none detected levels of the vertical and horizontal area no further action was needed. Crews hand dug the pea gravel from inside the facility. With the vertical sample confirmations from Envirotech Laboratory, it was determined that 6" of contaminated soil would be dug out, stockpiled on plastic and hauled to a disposal site from the lined containment. The spray area was back-dragged and contoured because the sample concentrations were under the site closure requirements, therefore no composite samples were taken. On February 14th, 2020, 20 yards of contaminated soil from inside the containment, was hauled to Lea Landfill Disposal Site. Liner inspection did not show any punctures, nicks or any compromising issues that would have compromised the integrity of the liner. Liner was then backfilled with pea gravel.

CONCLUSION

On behalf of Grizzly Energy, Hungry Horse, LLC would like to request closure for this site for the Christmas 28 Battery. If you have any questions please refer them to Natalie Gladden, Director of Environmental and Regulatory Services for Hungry Horse, LLC. She can be reached on her cell phone at (575) 390-6397 or via email at ngladden@hungry-horse.com

Sincerely,

Kathy Rivera

Kathy Rivera
Project Manager
Hungry Horse, LLC
4024 Plains Highway
Lovington, NM 88260
Cell: (575) 441-4374

Attachments;

- Initial C-141 and COA
- Site Map
- Karst Map
- Groundwater Data and Map
- Map of Impacted Area
- Sample Point Map
- Sample Data Log
- Laboratory Analytical Data
- Before, During and After Photos
- Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

X Initial Report ☐ Final Report

Name of Company Vanguard Operating LLC	Contact John Terry
Address 4001 Penbrook Suite 201 Odessa, TX 79762	Telephone No. 575-631-6933
Facility Name Christmas 28 Battery	Facility Type Battery

Surface Owner	Private	Mineral Owner Private	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	28	22S	37E					Lea

Latitude 32.365456 **Longitude** -103.170988

NATURE OF RELEASE

Type of Release Oil on top of rain water	Volume of Release 11	Volume Recovered 10
Source of Release Automatic valve on gas purchaser line closed causing the Heater Treater to pop off and spray oil..	Date and Hour of Occurrence 7-9-2018 10:00 am	Date and Hour of Discovery 7-9-2018 1:00 pm
Was Immediate Notice Given? Yes ☐ No X Not Required	If YES, To Whom? NMOCD inspector on site while checking surface casing pressures on wells	
By Whom?	Date and Hour 7-09-2018 1:00 pm	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By CHernandez at 8:23 am, Jul 24, 2018

Describe Cause of Problem and Remedial Action Taken.*

The automatic valve on the gas purchaser line closed causing the Heater Treater to pressure up and pop off through the relief valve. Oil sprayed an area inside of the lined containment and in front of the tank battery just outside of the containment. The oil sprayed on top of rainwater from previous rain.

Describe Area Affected and Cleanup Action Taken.*
A vacuum truck removed 10 bbls of standing fluid and hauled to disposal. The soil outside of containment was blended in place with new caliche.

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

Signature:

Printed Name: Chuck Johnston

Title EHS Specialist

E-mail Address: cjohnston@vnrenergy.com

Date: 07/19/2018 Phone:432-202-4771

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: CH

Approval Date: 7/24/2018 Expiration Date:

Conditions of Approval:
See attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-5132 fTO1505756122

nCH1820533323 pCH1820533947

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _7/23/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5132__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _8/24/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

GRIZZLY ENERGY

CHRISTMAS 28 BATTERY
SITE MAP

GRIZZLY ENERGY

CHRISTMAS 28 BATTERY
KARST MAP

Roswell

CHRISTMAS 28 BATTERY

Odessa

70
2
172
249
31
449
82
62
137
83
214
385
176
115
285
158
338
250
191
20
302

Google Earth

Image Landsat / Copernicus

N

50 mi

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 01657 POD1	2	2	4	28	22S	37E	673077	3582073

Driller License:	1731	**Driller Company:**	HARRISON & COOPER, INC (WD-1731)		
Driller Name:	COOPER, KENNY				
Drill Start Date:	04/11/2017	**Drill Finish Date:**	04/11/2017	**Plug Date:**	
Log File Date:	04/24/2017	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	4.00	**Depth Well:**	123 feet	**Depth Water:**	

Casing Perforations:	Top	Bottom
	108	123

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00911	4	4	4	21	22S	37E	673064	3583043*

Driller License:	1332	**Driller Company:**	ROOT, FRED D.		
Driller Name:	ROOT, FRED D.				
Drill Start Date:	02/21/2001	**Drill Finish Date:**	02/21/2001	**Plug Date:**	
Log File Date:	03/14/2001	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	5.75	**Depth Well:**	153 feet	**Depth Water:**	

Water Bearing Stratifications:	Top	Bottom	Description
	86	101	Sandstone/Gravel/Conglomerate
	101	115	Sandstone/Gravel/Conglomerate
	115	131	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	113	153

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00503	4	4		21	22S	37E	672965	3583144*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	VAN NOY, W.L.				
Drill Start Date:	09/12/1972	**Drill Finish Date:**	09/15/1972	**Plug Date:**	
Log File Date:	09/25/1972	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	5.00	**Depth Well:**	115 feet	**Depth Water:**	65 feet

Water Bearing Stratifications:	Top	Bottom	Description
	70	110	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	85	110

***UTM location was derived from PLSS - see Help**

GRIZZLY ENERGY

CHRISTMAS 28 BATTERY
GROUND WATER MAP

CP 00503 - 1143' FROM SITE - 65' DGW

32.370962,-103.16046

CP 00911 - 1163' FROM THE SITE - NO GW

CHRISTMAS 28 BATTERY

CP 01657 POD 1 - 1050' FROM SITE - NO GROUND WATER

King Rd

Google Earth

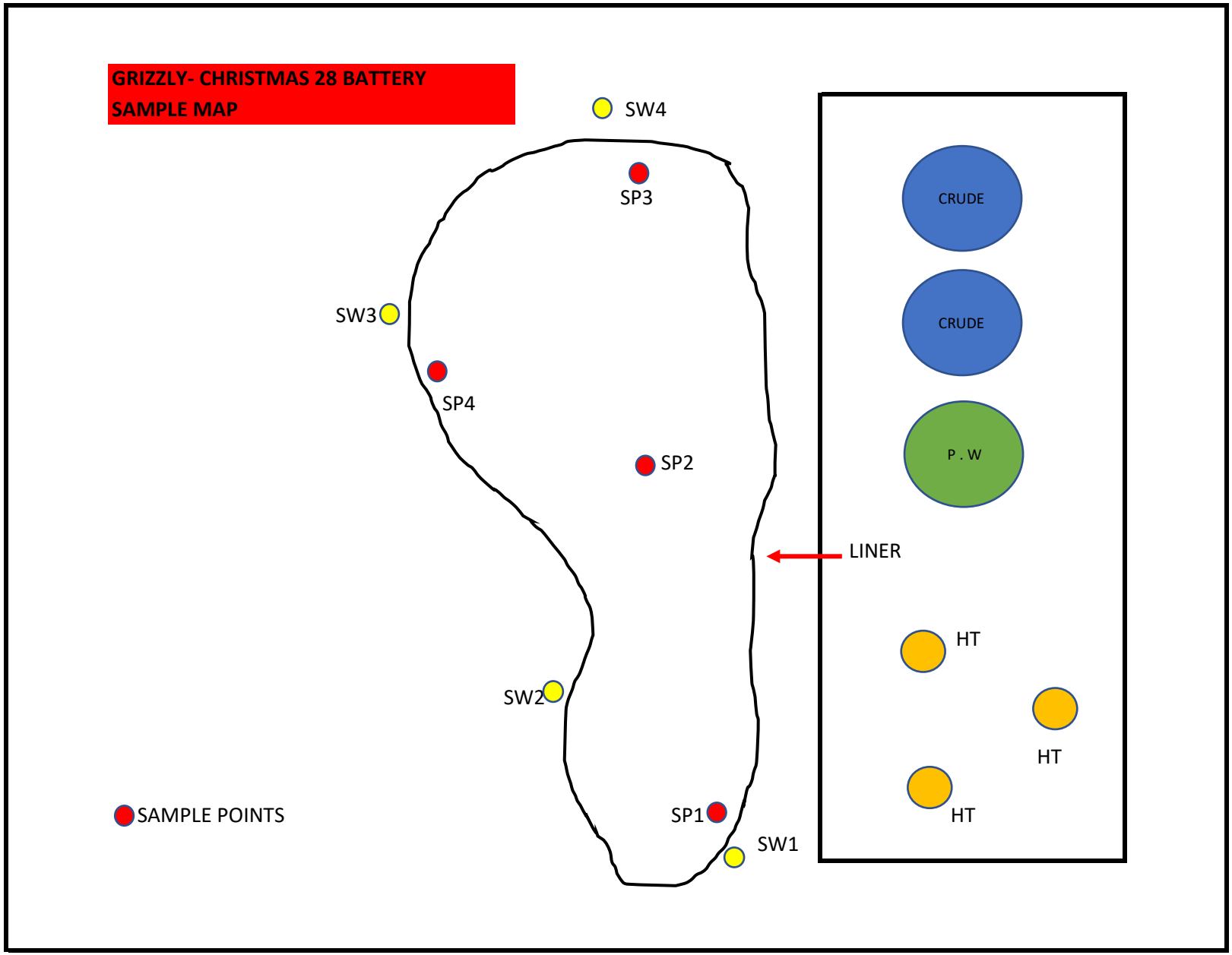
Image Landsat / Copernicus

N

2000 ft

Grizzly
Christmas 28 Battery

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


GRIZZLY- CHRISTMAS 28 BATTERY
SAMPLE MAP
SW4
SP3
SW3
SP4
SP2
SW2
SP1
SW1
SAMPLE POINTS
CRUDE
CRUDE
P . W
LINER
HT
HT
HT

COMPANY - GRIZZLY LOCATION: CHRISTMAS #28 P002039 RELEASE DATE ____07/09/2018_____

SP ID	DEPTH	TITR	L-CHLO	L-BTEX	L-GRO	L- DRO	L-MRO	TtL TPH	Soil Type	NOTES
SP1	SURF	5200								
	2'	2000								
	4'	400	106	ND	ND	ND	ND	ND		
SP2	SURF	2320								
	2'	400								
	4'	320	89.5	ND	ND	ND	ND	ND		
SP3	SURF	440								
	2'	440								
	4'	440	62.3	ND	ND	ND	ND	ND		
SP4	SURF	400								
	2'	560								
	4'	320	71.3	ND	ND	ND	ND	ND		
SW1	SURF	600								
	1'	400								
	2'	400	206	ND	ND	ND	ND	ND		
SW2	SURF	400								
	1'	480								
	2'	480	91.5	ND	ND	ND	ND	ND		
SW3	SURF	320								
	1'	320								
	2'	320	ND	ND	ND	ND	ND	ND		
SW4	SURF	480								
	1'	400								
	2'	400	93.2	ND	ND	ND	ND	ND		

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Grizzly Energy

Samples Received: 2/15/2020
Job Number: 19054-0003
Work Order: P002039
Project Name/Location: Christmas Battery

Report Reviewed By: Walter Hinchman, Laboratory Director

Date: 2/18/20

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

envirotech
Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP1-4'	P002039-01A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SP2-4'	P002039-02A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SP3-4'	P002039-03A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SP4-4'	P002039-04A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SW1-2'	P002039-05A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SW2-2'	P002039-06A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SW3-2'	P002039-07A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.
SW4-2'	P002039-08A	Soil	02/11/20	02/15/20	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SP1-4'
P002039-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*112 %*	*50-200*		*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**106**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

envirotech
Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SP2-4'
P002039-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*102 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*97.0 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*91.1 %*		*50-200*	*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*102 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*97.0 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**89.5**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SP3-4'
P002039-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*95.0 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*87.3 %*		*50-200*	*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*100 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*95.0 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**62.3**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SP4-4'
P002039-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*96.2 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*99.4 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*94.5 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*89.3 %*		*50-200*	*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*96.2 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*99.4 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*94.5 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**71.3**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SW1-2'
P002039-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*100 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*95.9 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*92.4 %*		*50-200*	*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*100 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*95.9 %*		*70-130*	*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**206**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SW2-2'
P002039-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*97.5 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*94.1 %*	*50-200*		*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*97.5 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**91.5**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SW3-2'
P002039-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*98.1 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*95.4 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*85.8 %*	*50-200*		*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*98.1 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*95.4 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

SW4-2'
P002039-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by 8260									
Benzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8260B*	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2008001	02/17/20	02/17/20	EPA 8015D	
Surrogate: n-Nonane		*85.8 %*	*50-200*		*2008001*	*02/17/20*	*02/17/20*	*EPA 8015D*	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2007031	02/15/20	02/15/20	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Toluene-d8		*101 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*		*2007031*	*02/15/20*	*02/15/20*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**93.2**	20.0	mg/kg	1	2008002	02/17/20	02/17/20	EPA 300.0/9056A	

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Volatile Organic Compounds by 8260 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2007031 - Purge and Trap EPA 5030A										
Blank (2007031-BLK1)				Prepared & Analyzed: 02/15/20 1						
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 1,2-Dichloroethane-d4	*0.485*		"	*0.500*		*97.0*	*70-130*			
Surrogate: Toluene-d8	*0.492*		"	*0.500*		*98.3*	*70-130*			
Surrogate: Bromofluorobenzene	*0.474*		"	*0.500*		*94.7*	*70-130*			
LCS (2007031-BS1)				Prepared & Analyzed: 02/15/20 1						
Benzene	2.70	0.0250	mg/kg	2.50		108	70-130			
Toluene	2.65	0.0250	"	2.50		106	70-130			
Ethylbenzene	2.77	0.0250	"	2.50		111	70-130			
p,m-Xylene	5.27	0.0500	"	5.00		105	70-130			
o-Xylene	2.63	0.0250	"	2.50		105	70-130			
Total Xylenes	7.89	0.0250	"	7.50		105	0-200			
Surrogate: 1,2-Dichloroethane-d4	*0.474*		"	*0.500*		*94.8*	*70-130*			
Surrogate: Toluene-d8	*0.512*		"	*0.500*		*102*	*70-130*			
Surrogate: Bromofluorobenzene	*0.507*		"	*0.500*		*101*	*70-130*			
Matrix Spike (2007031-MS1)		**Source: P002038-01**		Prepared & Analyzed: 02/15/20 1						
Benzene	2.83	0.0250	mg/kg	2.50	ND	113	48-131			
Toluene	2.78	0.0250	"	2.50	ND	111	48-130			
Ethylbenzene	2.90	0.0250	"	2.50	ND	116	45-135			
p,m-Xylene	5.53	0.0500	"	5.00	ND	111	43-135			
o-Xylene	2.74	0.0250	"	2.50	ND	110	43-135			
Total Xylenes	8.27	0.0250	"	7.50	ND	110	0-200			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		"	*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.516*		"	*0.500*		*103*	*70-130*			
Surrogate: Bromofluorobenzene	*0.499*		"	*0.500*		*99.7*	*70-130*			
Matrix Spike Dup (2007031-MSD1)		**Source: P002038-01**		Prepared & Analyzed: 02/15/20 1						
Benzene	2.77	0.0250	mg/kg	2.50	ND	111	48-131	2.13	23	
Toluene	2.76	0.0250	"	2.50	ND	110	48-130	0.974	24	
Ethylbenzene	2.88	0.0250	"	2.50	ND	115	45-135	0.899	27	
p,m-Xylene	5.46	0.0500	"	5.00	ND	109	43-135	1.25	27	
o-Xylene	2.74	0.0250	"	2.50	ND	110	43-135	0.0547	27	
Total Xylenes	8.20	0.0250	"	7.50	ND	109	0-200	0.850	200	
Surrogate: 1,2-Dichloroethane-d4	*0.484*		"	*0.500*		*96.8*	*70-130*			
Surrogate: Toluene-d8	*0.506*		"	*0.500*		*101*	*70-130*			
Surrogate: Bromofluorobenzene	*0.513*		"	*0.500*		*103*	*70-130*			

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Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2008001 - DRO Extraction EPA 3570										
Blank (2008001-BLK1)				Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	*52.1*		*"*	*50.0*		*104*	*50-200*			
LCS (2008001-BS1)				Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Diesel Range Organics (C10-C28)	449	25.0	mg/kg	500		89.7	38-132			
Surrogate: n-Nonane	*50.3*		*"*	*50.0*		*101*	*50-200*			
Matrix Spike (2008001-MS1)	**Source: P002039-01**			Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Diesel Range Organics (C10-C28)	478	25.0	mg/kg	500	ND	95.5	38-132			
Surrogate: n-Nonane	*50.1*		*"*	*50.0*		*100*	*50-200*			
Matrix Spike Dup (2008001-MSD1)	**Source: P002039-01**			Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Diesel Range Organics (C10-C28)	410	25.0	mg/kg	500	ND	82.0	38-132	15.2	20	
Surrogate: n-Nonane	*43.5*		*"*	*50.0*		*87.0*	*50-200*			

envirotech
Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2007031 - Purge and Trap EPA 5030A										
Blank (2007031-BLK1)				Prepared & Analyzed: 02/15/20 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	*0.485*		"	*0.500*		*97.0*	*70-130*			
Surrogate: Toluene-d8	*0.492*		"	*0.500*		*98.3*	*70-130*			
Surrogate: Bromofluorobenzene	*0.474*		"	*0.500*		*94.7*	*70-130*			
LCS (2007031-BS2)				Prepared & Analyzed: 02/15/20 1						
Gasoline Range Organics (C6-C10)	58.9	20.0	mg/kg	50.0		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.468*		"	*0.500*		*93.6*	*70-130*			
Surrogate: Toluene-d8	*0.519*		"	*0.500*		*104*	*70-130*			
Surrogate: Bromofluorobenzene	*0.489*		"	*0.500*		*97.7*	*70-130*			
Matrix Spike (2007031-MS2)		**Source: P002038-01**		Prepared & Analyzed: 02/15/20 1						
Gasoline Range Organics (C6-C10)	63.3	20.0	mg/kg	50.0	ND	127	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.484*		"	*0.500*		*96.8*	*70-130*			
Surrogate: Toluene-d8	*0.511*		"	*0.500*		*102*	*70-130*			
Surrogate: Bromofluorobenzene	*0.487*		"	*0.500*		*97.3*	*70-130*			
Matrix Spike Dup (2007031-MSD2)		**Source: P002038-01**		Prepared & Analyzed: 02/15/20 1						
Gasoline Range Organics (C6-C10)	61.3	20.0	mg/kg	50.0	ND	123	70-130	3.30	20	
Surrogate: 1,2-Dichloroethane-d4	*0.478*		"	*0.500*		*95.6*	*70-130*			
Surrogate: Toluene-d8	*0.507*		"	*0.500*		*101*	*70-130*			
Surrogate: Bromofluorobenzene	*0.493*		"	*0.500*		*98.5*	*70-130*			

envirotech
Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2008002 - Anion Extraction EPA 300.0/9056A										
Blank (2008002-BLK1)				Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Chloride	ND	20.0	mg/kg							
LCS (2008002-BS1)				Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Chloride	247	20.0	mg/kg	250		98.8	90-110			
Matrix Spike (2008002-MS1)		**Source: P002039-01**		Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Chloride	357	20.0	mg/kg	250	106	101	80-120			
Matrix Spike Dup (2008002-MSD1)		**Source: P002039-01**		Prepared: 02/17/20 0 Analyzed: 02/17/20 1						
Chloride	356	20.0	mg/kg	250	106	100	80-120	0.292	20	

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

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Analytical Laboratory

Grizzly Energy	Project Name:	Christmas Battery	
4001 Penbrook Suite 201	Project Number:	19054-0003	**Reported:**
Odessa TX, 79762	Project Manager:	Carmen Pitt	02/18/20 13:25

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

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

Client: Grizzly Energy
Project: Christmas Battery
Project Manager: Carmen Pitt
Address:
City, State, Zip
Phone:
Email:

Report Attention
Report due by: Hungry Horse
Attention: Natalie Gladden
Address: 4084 Plains Hwy
City, State, Zip Lovington NM 882100
Phone: 575-631-6397
Email: Ngladden@hungry-horse.com

Lab Use Only
Lab WO# PDD2039
Job Number 19054-0003

TAT: 1D X, 3D

EPA Program: RCRA, CWA, SDW

State: NM, CO, UT, AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0		TCEQ 1005	BGDOC - NM	BGDOC - TX				Remarks
	2-11-20	S	1	SP1 - 4'	1								X					
			1	SP2 - 4'	2								X					
			1	SP3 - 4'	3								X					
			1	SP4 - 4'	4								X					
			1	SW1 - 2'	5								X					
			1	SW2 - 2'	6								X					
			1	SW3 - 2'	7								X					
			1	SW4 - 2'	8								X					

Additional Instructions:

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

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Natalie Gladden	2/14/20	2:30		2.14.2020	1430
	2.14.2020	1540	Raina Lopez	2/15/20	9:45

Lab Use Only
Received on ice: (Y) / N
T1 _____ T2 _____ T3 _____
AVG Temp °C 4

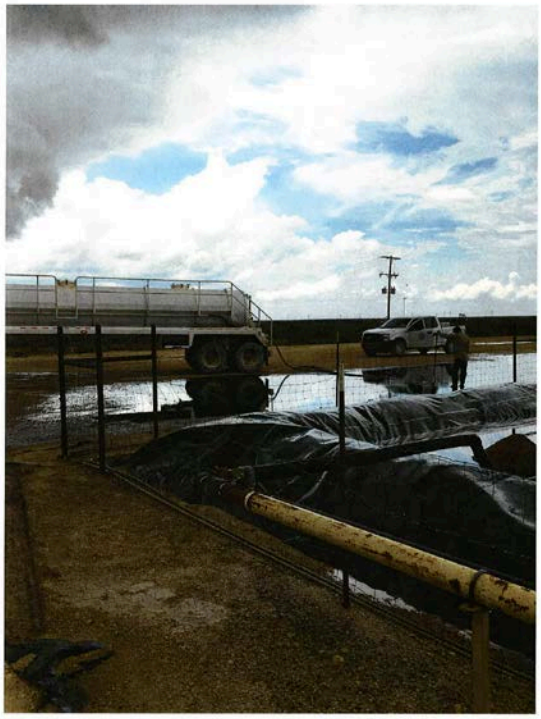
Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

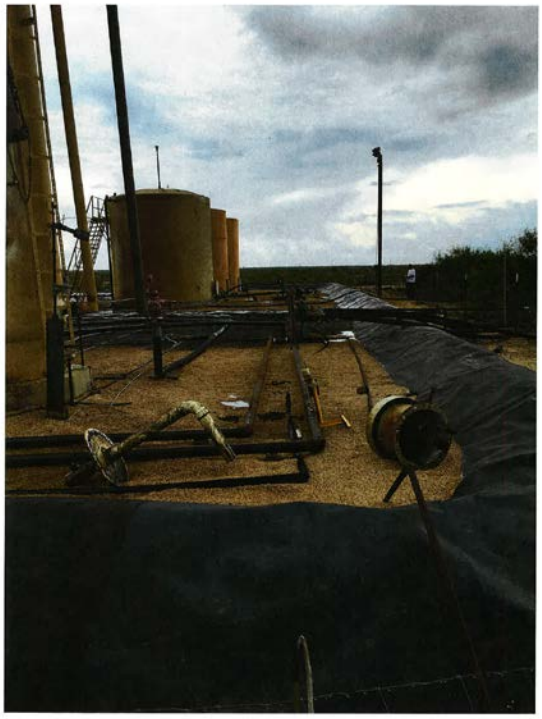
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

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

envirotech Analytical Laboratory
5795 US Highway 64, Farmington, NM 87401
24 Hour Emergency Response Phone (800) 362-1879
Ph (505) 632-1881 Fx (505) 632-1865
envirotech-inc.com
labadmin@envirotech-inc.com

GRIZZLY CHRISTMAS 28 BATTERY
BEFORE PHOTOS – RELEASE DATE 07/09/2018





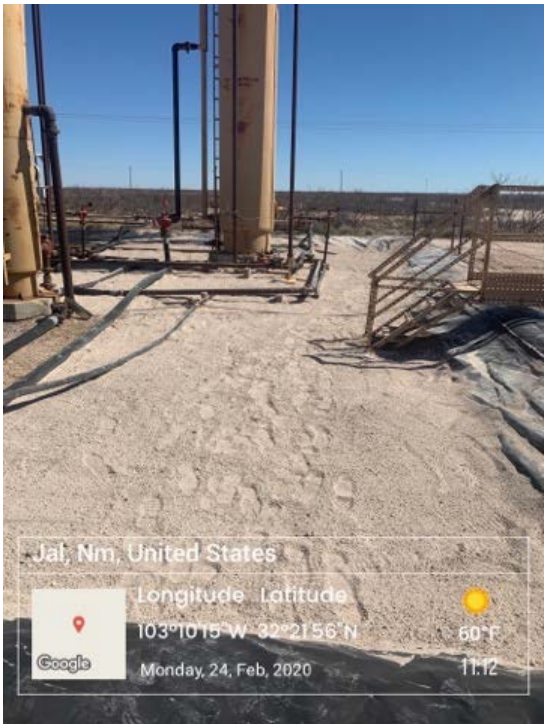
GRIZZLY ENERGY – CHRISTMAS 28 BATTERY

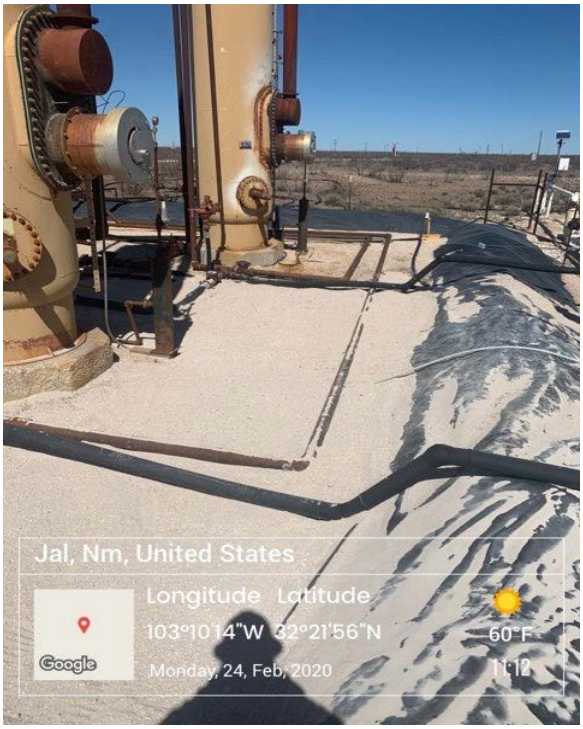
DURING PHOTOS – RELEASE DATE 07/09/2018

GRIZZLY ENERGY

CHRISTMAS 28 BATTERY - 07/09/2018 SPILL DATE

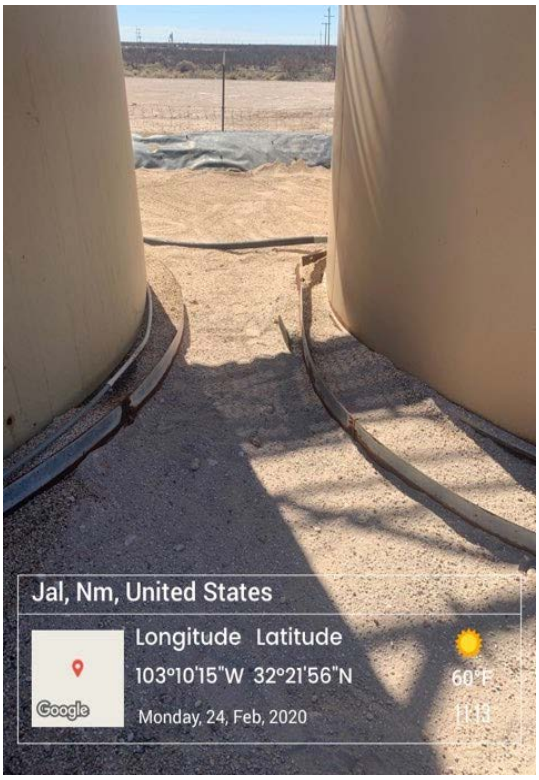
AFTER PHOTO'S

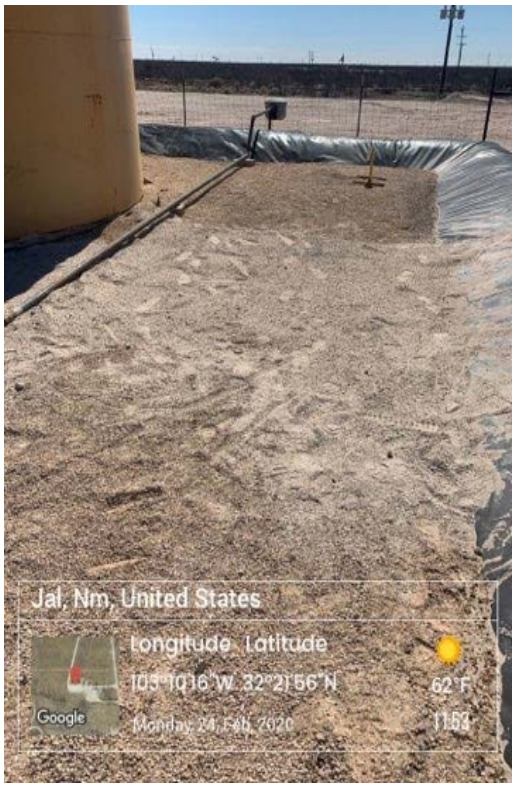


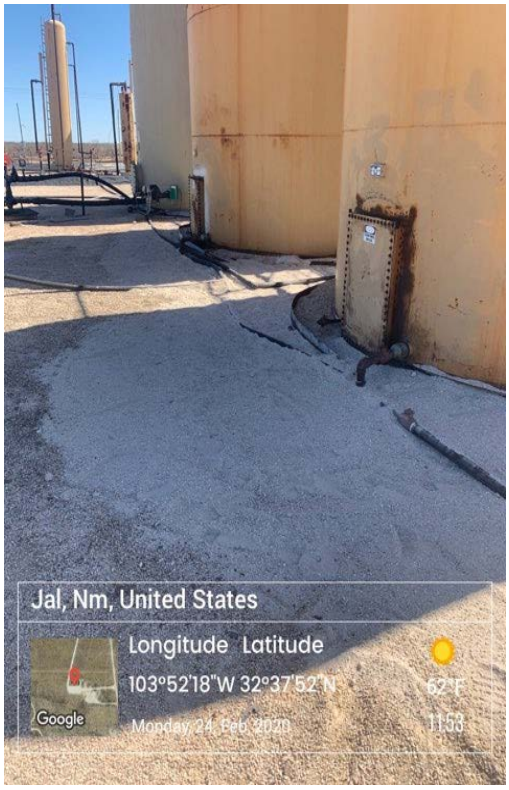



Jal, Nm, United States
Longitude Latitude
103°10'14"W 32°21'56"N
Monday, 24, Feb, 2020
60°F
11:12


Jal, Nm, United States
Longitude Latitude
103°10'15"W 32°21'56"N
Monday, 24, Feb, 2020
60°F
11:13


Jal, Nm, United States
Longitude Latitude
103°10'15"W 32°21'56"N
Monday, 24, Feb, 2020
60°F
11:13


Jal, Nm, United States
Longitude Latitude
103°10'16"W 32°21'56"N
Monday, 24, Feb, 2020
62°F
11:53
Google


Jal, Nm, United States
Longitude Latitude
103°52'18"W 32°37'52"N
Monday, 24, Feb, 2020
62°F
11:53
Google


Jal, Nm, United States
Longitude Latitude
103°10'15"W 32°21'56"N
Monday, 24, Feb, 2020
62°F
11:53
Google

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Natalie Gladden Title: Director of Environmental & Regulatory

Signature: Natalie Gladden Date: 4-23-20

email: ngladden@hungry-horse.com Telephone: 575-390-6397

OCD Only

Received by: _____ Date: _____

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	65' (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.

Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Natalie Gladden Title: Director of Environmental & Regulatory

Signature: Natalie Gladden Date: 4/23/20

email: ngladden@hugry-horse.com Telephone: 575-390-6397

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
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: Natalie Gladden Title: Director of Environmental & Regulatory

Signature: Natalie Gladden Date: 4/23/20

email: ngladden@hungry-horse.com Telephone: 575-390-6397

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____