SITE REMEDIATION AND CLOSURE REPORT

REPORTABLE RELEASE

Spur Energy Partners
Ivar The Boneless Fed #11H
Incident ID: nAPP2212771896
API #30-025-42514
GPS: Latitude 32.82715322 Longitude -103.7617711
Lea County, NM

Prepared by:

Paragon Environmental LLC
1601 N. TURNER ST. STE.500
Hobbs, NM 88240
575-964-7814

GENERAL DETAILS

This report was prepared by Paragon Environmental LLC (Paragon) in response to the release for Spur Energy Partners (Spur) at the **Ivar The Boneless Federal #11H**.

Site Coordinates: Latitude: 32.82715322 Longitude: -103.7617711

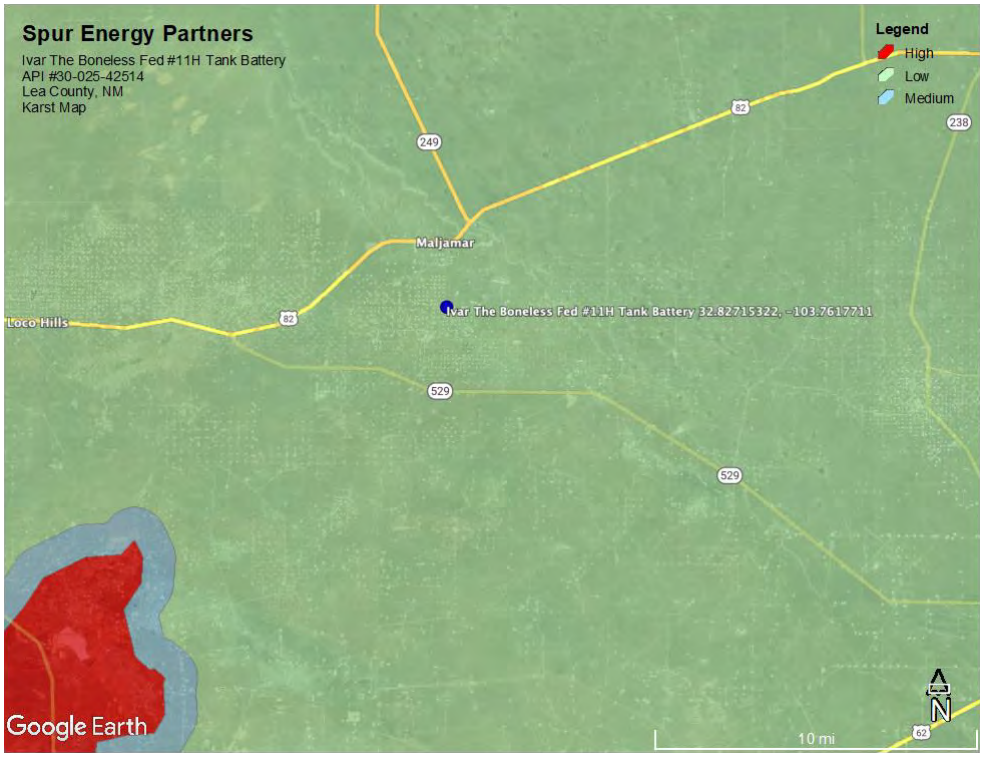
Unit UL D, Section 22, Township 17S, Range 32E

Incident ID: NAPP2212771896

REGULATORY FRAMEWORK

Depth to Groundwater: According to the New Mexico State of Engineers Office, the nearest water data is 1 mile away and is 92 feet below ground surface (BGS). Since information is greater than ½ mile away, the cleanup criteria followed were done so to the requirements as if the depth to groundwater was ≤50 feet. See Appendix A for details.

Soil Survey: Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Eolian and piedmont deposits (Holocene to middle Pleistocene)-Interlayed eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits (QEP). According to the United States Department of Agriculture Natural Resources Conservation Service soil survey, the soil in this area is comprised of the Kermit-Wink complex, with 0 to 3 percent slopes. The drainage courses in this area are excessively-drained. The karst geology in the area of the Ivar is of Low Karst. See the map below.



RELEASE DETAILS

Corrosion in the heater treater finally developed a hole, resulting in the release of produced water. The release was contained in the engineered Falcon Liner containment. A vacuum truck was dispatched to aid in the recovery of the fluids.

Date of Spill: 05/07/2022

Type of Spill: ☐Crude Oil ☒Produced Water ☐ Condensate ☐Other (Specify):

Comments: Reportable release.
Released: 0 bbls of Oil and 40 bbls of Produced Water
Recovered: 0 bbls of Oil and 40 bbls of Produced Water

INITIAL SITE ASSESSMENT

On May 16, 2022, Paragon went to the Ivar for an initial assessment. There were noticeable salt stains on the liner from the spill. There were no signs outside the containment that the liner had been breached. Therefore, no samples were taken. See the site map below showing the affected area.

REMEDIATION ACTIVITIES

On May 19, 2022, Paragon returned to the site with equipment and personnel to conduct cleanup activities. We initially sprayed the affected area with surface cleaner. We then power washed and squeegeed the runoff into the sump, which was pumped back into the production system.

On July 1, 2022, Paragon returned to the site to conduct a liner inspection. A 48-hour notification was sent out to regulatory. The liner inspection concluded that the liner was all intact and in good condition. See Appendix E for the email notification and liner report.

CLOSURE REQUEST

After careful review, Paragon requests that the incident, NAPP2111859050, be closed. Spur has complied with the applicable closure requirements. If you have any questions or need additional information, please contact Chris Jones at 575-631-6977 or chris@paragonenvironmental.net.

Respectfully,

Chris Jones
Environmental Professional
Paragon Environmental LLC

Attachments

Figures:

1- Topo Map
2- Aerial Map

Appendices:

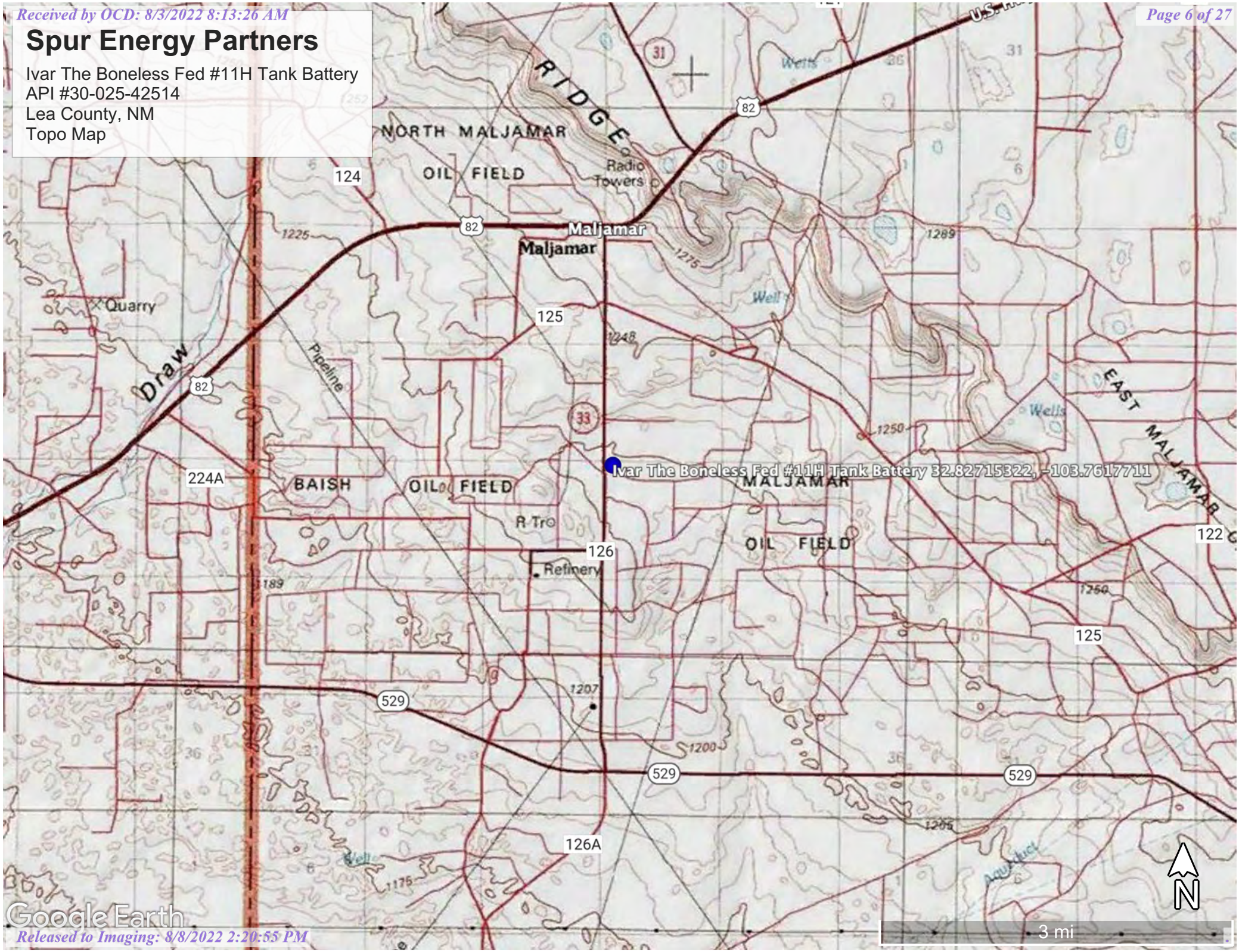
- Appendix A- Referenced Water Data
- Appendix B- Soil Survey & FEMA Flood Map
- Appendix C- C-141
- Appendix D- Photographic Documentation
- Appendix E- Email and Liner Inspection

Figures:

1- Topo Map
2-Aerial Map

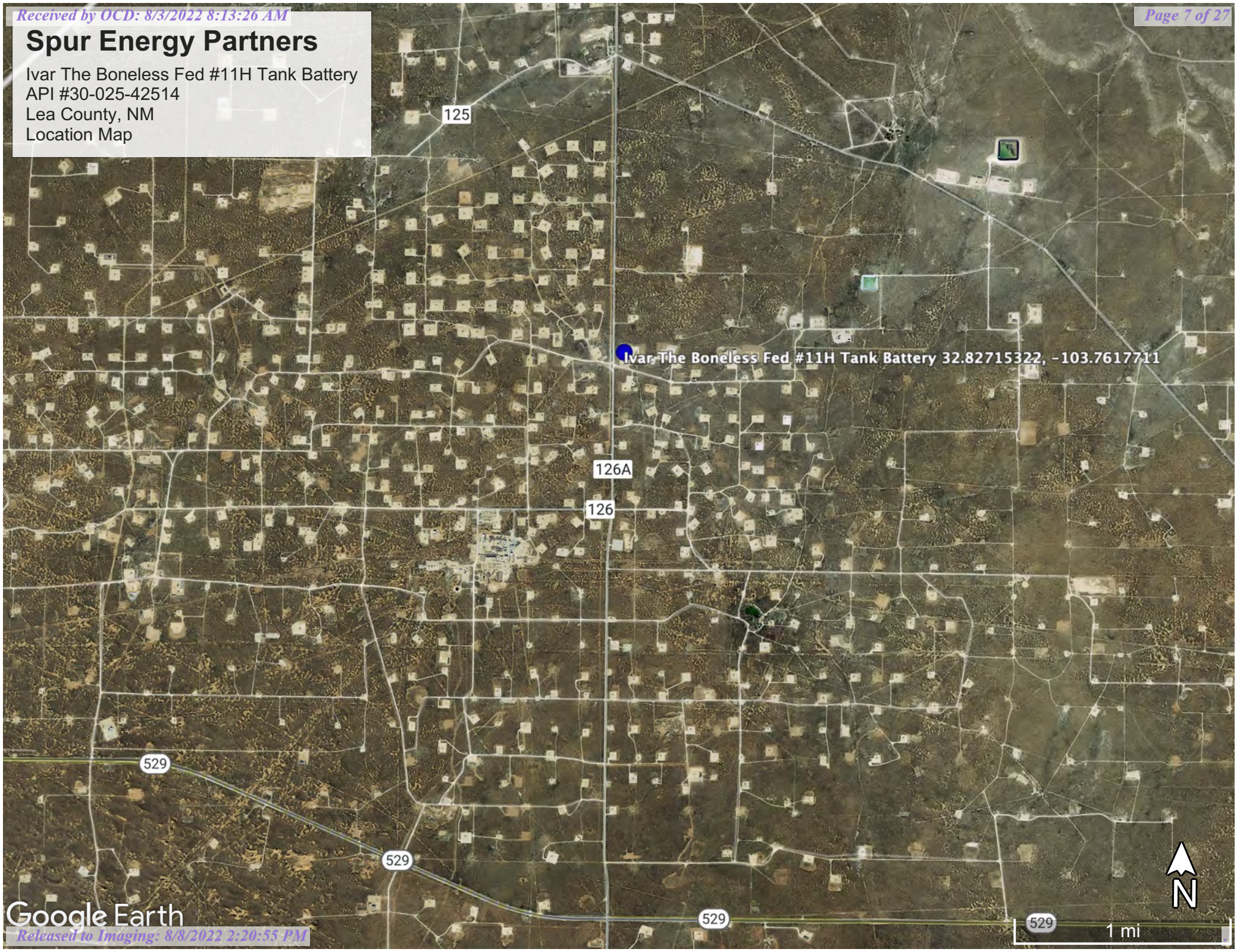
Spur Energy Partners

Ivar The Boneless Fed #11H Tank Battery
API #30-025-42514
Lea County, NM
Topo Map



Spur Energy Partners

Ivar The Boneless Fed #11H Tank Battery
API #30-025-42514
Lea County, NM
Location Map



Appendix A
Referenced Water Data:

New Mexico State of Engineers Office

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 12521 POD1		RA	LE	3	3	4	21	17S	32E	615127	3631271	1716	105	92	13
RA 12042 POD1		RA	LE	2	2	1	28	17S	32E	614891	3631181	1910	400		
RA 12020 POD3		RA	LE	2	1	2	28	17S	32E	615152	3631019	1934	112	83	29
RA 12522 POD1		RA	LE	3	3	4	21	17S	32E	614941	3631122	1935	100		
RA 12522 POD3		RA	LE	4	4	3	28	17S	32E	614980	3631093	1941	100		
RA 12522 POD2		RA	LE	2	2	1	28	17S	32E	614949	3631098	1952	100		

Average Depth to Water: **87 feet**

Minimum Depth: **83 feet**

Maximum Depth: **92 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 615899.84 **Northing (Y):** 3632803.794 **Radius:** 2000

Appendix B
Soil Survey:

U.S.D.A.
FEMA Flood Map

Lea County, New Mexico

KE—Kermit-Wink complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmpw
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 70 percent
Wink and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand
C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A
Ecological site: R042XC005NM - Deep Sand
Hydric soil rating: No

Description of Wink

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Calcareous sandy alluvium and/or calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 12 inches: fine sand
Bk - 12 to 23 inches: sandy loam
BCk - 23 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R042XC005NM - Deep Sand
Hydric soil rating: No

Minor Components

Berino

Percent of map unit: 3 percent
Ecological site: R042XC004NM - Sandy
Hydric soil rating: No

Palomas

Percent of map unit: 2 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Pyote

Percent of map unit: 2 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Dune land

Percent of map unit: 2 percent
Hydric soil rating: No

Maljamar

Percent of map unit: 1 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 18, Sep 10, 2021

National Flood Hazard Layer FIRMette

FEMA

103°46'1"W 32°49'53"N

103°45'24"W 32°49'23"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/21/2022 at 1:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix C:

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2212771896
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Spur Energy Partners	OGRID 328947
Contact Name Chad Hensley	Contact Telephone 346-339-1494
Contact email chensley@spurenergy.com	Incident # nAPP2212771896
Contact mailing address 919 Milam Street Suite 2475 Houston, TX 77002	

Location of Release Source

Latitude 32.82715322 Longitude -103.7617711
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ivar the Boneless Fed #11H	Site Type Production
Date Release Discovered 5/7/22	API# 30-025-42514

Unit Letter	Section	Township	Range	County
D	22	17S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released 40(bbls)	Volume Recovered 40(bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Corrosion in the heater treater finally developed a hole, resulting in the release of produced water. The release was contained in the engineered Falcon Liner containment. A vacuum truck was dispatched to aid in the recovery of the fluids.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2212771896
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: Chad Hensley Title: HSE Coordinator

Signature: _____ Date:

email: chensley@spurenergy.com Telephone: 346-339-1494

OCD Only

Received by: Jocelyn Harimon Date: 08/03/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2212771896
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?	<50 (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
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2212771896
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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: Chad Hensley Title: HSE Coordinator

Signature: _____ Date:

email: chensley@spurenergy.com Telephone: 346-339-1494

OCD Only

Received by: Jocelyn Harimon Date: 08/03/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2212771896
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: Chad Hensley Title: HSE Coordinator

Signature: Chad Hensley Date: 8/3/2022

email: chensley@spurenergy.com Telephone: 346-339-1494

OCD Only

Received by: _____ Date: 08/03/2022

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: Jennifer Nobui Date: 08/08/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

Appendix D:

Photographic Documentation

PARAGON ENVIRONMENTAL

Photographic Documentation

Before

Completed

Appendix E:

Liner Inspection

Email Notification

Paragon Environmental LLC

Liner Inspection Form

Company Name: SPUR ENERGY PARTNERS

Site: Ivar The Boneless Fed #11H

Lat/Long: 32.82715322, -103.7617711

NMOCD Incident ID & Incident Date: nAPP2212771896 05/07/2022

2-Day Notification Sent: 06/29/2022

Inspection Date: 07/01/2022

Liner Type: Earthen w/liner | Earthen no liner | Polystar | Steel w/poly liner | Steel w/spray epoxy | No Liner

Other: _____

Visualization	Yes	No	Comments
Is there a tear in the liner?		x	
Are there holes in the liner?		x	
Is the liner retaining any fluids?		x	
Does the liner have integrity to contain a leak?	x		

Comments: _____

Inspector Name: Tristan Jones

From: **Chris Jones** chris@paragonenvironmental.net
Subject: Liner Inspections
Date: June 29, 2022 at 11:45 AM
To: EMNRD Bratcher Mike mike.bratcher@state.nm.us, EMNRD Hamlet Robert Robert.Hamlet@state.nm.us, Nobui Jennifer EMNRD Jennifer.Nobui@state.nm.us, Billings Bradford EMNRD Bradford.Billings@state.nm.us, Tristan Jones Tristan@paragonenvironmental.net, Braidy Moulder bmoulder@spurenergy.com, Chad Hensley chensley@spurenergy.com

Mr. Bratcher,

This is to inform the NMOCD, Paragon will be conducting liner inspections at the following Spur Energy locations on Friday 7-1-22 at app 9 am starting in order.

Ivar the Boneless Fed #011H 30-025-42514

Romo SWD #1 30-015-37312

Bradley 8 Fee #002H 30-015-39811

If you have any questions please let me know.

Chris Jones
Environmental Professional
Cell 575-631-6977

"We do not inherit the earth from our ancestors; we borrow it from our children." Chief Seattle

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 130962

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 130962
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Approved.	8/8/2022