



October 4, 2023

District Supervisor  
Oil Conservation Division, District 4  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Pit Closure  
API Number 30-021-20569  
Unit Letter K, Section 06, Township 20 North, Range 32 East  
Harding County, New Mexico**

Dear Sir or Madam,

Tetra Tech, Inc. (Tetra Tech) was contracted by Maverick Natural Resources (Maverick), the parent company of Breitburn Operating LP (Breitburn), to assist in Pit Closure reporting for the Libby 2032 #6-1-K temporary drilling pit permitted for the canceled Libby Minerals LLC 2032 #061 well (30-021-20569), located in Unit Letter K, Section 05, Township 20 North, Range 32 East, in Harding County, New Mexico (Pit). The pit was located at coordinates 35.991296°, -103.583839° as shown in **Figures 1 and 2**.

## **BACKGROUND**

Reliant Exploration & Production, LLC (Reliant) submitted a Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application for the Permit of a pit dated May 16, 2013, and approved by the New Mexico Oil Conservation Division (NMOCD) on June 13, 2013. Subsequent to NMOCD approval, the pit was constructed. however, the well was never drilled, the well was canceled on June 13, 2016, and the Pit was never utilized for any purpose. Breitburn obtained the Pit from Reliant on April 1, 2015.

## **PIT CLOSURE PLAN**

The Pit closure plan was prepared and submitted on the Pit Permit Application C-144 Form in accordance with 19.15.17.13 New Mexico Administrative Code (NMAC). The original NMOCD-approved Pit Permit application including hydrogeologic data, siting criteria compliance demonstrations, design plan, operating and maintenance plan, and closure plan is provided in **Attachment 1**. In summary, the closure plan stipulates Proposed Closure of the permitted Drilling Pit by waste excavation and removal per the following:

- Protocols and Procedures in accordance with 19.15.17.13 NMAC;
- Confirmation Sampling in accordance with 19.15.17.13(F) NMAC;
- Disposal of waste to an NMOCD-approved facility in accordance with 19.15.17.13(C)(2);
- Soil Backfill and Cover in accordance with 19.15.17.13(H) NMAC;
- Re-vegetation in accordance with 19.15.17.13(H) NMAC;
- Site Reclamation in accordance with 19.15.17.13(G) NMAC; and

**Tetra Tech, Inc.**

1500 CityWest Boulevard, Suite 1000, Houston, TX 77042  
**Tel** +1.832.281.5160 **Fax** +1.832.281.5170 | [tetrattech.com/oga](http://tetrattech.com/oga)

Pit Closure Report  
 Breitburn Operating LP  
 Libby 2032 #6-1-K Drilling Pit  
 API Number: 30-021-20569

October 4, 2023

- Confirmation sampling completed in accordance with 19.15.17.13(C)(3) NMAC.

## PIT CLOSURE

In August 2023, Maverick began pit closure activities by notifying the surface owner by certified mail in a letter to Libby Cattle Company dated August 22, 2023, and received on August 24, 2023, in accordance with 19.15.17.13(E)(1) NMAC. Copies of the notification letter and receipt are provided in **Attachment 2**.

Maverick then began pit closure activities by verifying no pit liner or fluid was present within the Pit. On August 30, 2023, Jorge Fernando Velo of Tetra Tech mobilized to the Pit site to inspect the open pit once the liner had been removed. The visual inspection did not identify any obvious stained or wet soils or other evidence of contamination within the Pit. Tetra Tech then collected a single 5-point composite sample from the Pit floor material. The composited sample was immediately placed on ice and transported to Cardinal Laboratories in Hobbs, New Mexico under chain of custody documentation for Analysis of the following:

- Chloride by EPA Method 300.0;
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Method 8021B; and
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M.

The laboratory analytical results were compared to the most stringent 19.15.17.13 NMAC Table I Closure Criteria for groundwater at less than 50 feet below ground surface (bgs). A summary of laboratory analytical results compared to closure criteria is presented below in **Table 1** and the laboratory analytical data package is provided in **Attachment 3**.

**Table 1: Laboratory Analytical Results**

Constituent	Units	Table I Closure Criteria	Composite Sample Analytical Results
Chloride	mg/kg	600	176
TPH (GRO+DRO+ORO)	mg/kg	100	< 30.0
BTEX	mg/kg	50	< 0.300
Benzene	mg/kg	10	< 0.050

Upon receipt of the laboratory analytical results, Maverick closed the pit by pushing the berms constructed of native topsoil back into the open hole to return soil cover to its original relative position which was then graded to match the previous topographic contours to achieve erosion control, long-term stability and preservation of surface water flow patterns. Photographs of the recontoured soil surface are provided in **Attachment 4**, the completed C-144 form, C-105 Form, and plat are provided in **Attachment 1**.

The closed Pit site disturbed area has been prepared for reseeding which will be performed at the beginning of the next favorable growing season in the spring of 2024 to aid in vegetation growth and to

Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

complete reclamation. The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) identifies soils at the Pit site as Springer Loamy Fine Sand, therefore, New Mexico State Land Office Seed Mix for Sandy Loam (SL) Sites Seed Mixture will be used to seed the site. Seeding will be performed by broadcasting at 35.5 Pure Live Seed (PLS) per acre, double the specified seed drill Application Rate published in the NMSLO Sandy Loam (SL) Sites Seed Mixture data sheet, as prescribed by the datasheet. The NMSLO Sandy Loam (SL) Sites Seed Mixture data sheet is provided in **Attachment 5**.

## CONCLUSIONS

Based on the results of the confirmation sampling, no impacted soils were present within the Pit footprint above Reclamation Requirements and no waste was present requiring removal and offsite disposal. The open Pit area has been backfilled with soil to match pre-existing depths and topographic contours. Therefore, Pit closure requirements have been achieved and reclamation is underway pending revegetation of the Pit site. If you have any questions concerning the Pit closure activities, please call me at (832) 252-2093.

Sincerely,



Chris Straub  
Project Manager  
Tetra Tech, Inc.



Charles H. Terhune IV, P.G.  
Program Manager  
Tetra Tech, Inc.

cc:

Mr. Edward Pollister – Maverick Natural Resources

Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Pit Confirmation Sampling Plat

### Attachments:

- Attachment 1 – C-144 Form, C-105 Form, and Plat
- Attachment 2 – Property Owner Notification
- Attachment 3 – Laboratory Analytical Data
- Attachment 4 – Photographic Documentation
- Attachment 5 – NMSLO Seed Mixture

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

Form C-144  
Revised October 11, 2022

## Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☐ Below grade tank registration  
☐ Permit of a pit or proposed alternative method  
☒ Closure of a pit, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit/or registration  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

**Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request**

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.  
 Operator: Breitbart Operating LP OGRID #: 251905  
 Address: 1000 Main Street, Suite 2900 Houston, TX 77002  
 Facility or well name: Libby Minerals LLC 2032 6-1-K  
 API Number: 30-021-20569 OCD Permit Number: \_\_\_\_\_  
 U/L or Qtr/Qtr K Section 6 Township 20N Range 32E County: Harding  
 Center of Proposed Design: Latitude 35.991296 Longitude -103.583839 NAD83  
 Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.  
☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
 Temporary: ☒ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no  
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☒ String-Reinforced  
 Liner Seams: ☐ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: 850 bbl Dimensions: L 80" x W 80" x D 6"

3.  
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
 Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
 Tank Construction material: \_\_\_\_\_  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
 Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

4.  
☐ **Alternative Method:**  
 Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.  
**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)  
☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)  
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet  
☐ Alternate. Please specify \_\_\_\_\_

6.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

***Please check a box if one or more of the following is requested, if not leave blank:***

- ☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*****General siting****Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit .**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area. **(Does not apply to below grade tanks)**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain. **(Does not apply to below grade tanks)**

- FEMA map

☐ Yes ☐ No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 100 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

### **Temporary Pit Non-low chloride drilling fluid**

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

### **Permanent Pit or Multi-Well Fluid Management Pit**

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

10.

#### **Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

11.

#### **Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_



12.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Climatological Factors Assessment  
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Quality Control/Quality Assurance Construction and Installation Plan  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan  
☐ Emergency Response Plan  
☐ Oil Field Waste Stream Characterization  
☐ Monitoring and Inspection Plan  
☐ Erosion Control Plan  
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.

**Proposed Closure:** 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit  
☐ Alternative
- Proposed Closure Method: ☐ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method

14.

**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	



adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

16.

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

18.

**OCD Approval:** ☐ Permit Application (including closure plan) ☒ Closure ~~Plan~~ ☐ OCD Conditions (see attachment)

**OCD Representative Signature:** Victoria Venegas **Approval Date:** 11/02/2023

**Title:** Environmental Specialist **OCD Permit Number:** Libby Minerals LLC 2032 6-1-K

19.

**Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☒ **Closure Completion Date:** 09/06/2023

20.

**Closure Method:**

- ☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
- ☐ If different from approved plan, please explain.

21.

**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☒ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☒ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)


On-site Closure Location: Latitude 35.9913660 Longitude -103.5834113 NAD: ☐ 1927 ☒ 1983

22.

**Operator Closure Certification:**  
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print):  
Edward Pollitt

Title:  
Production Forum 4L

Signature:  


Date:  
10-30-23

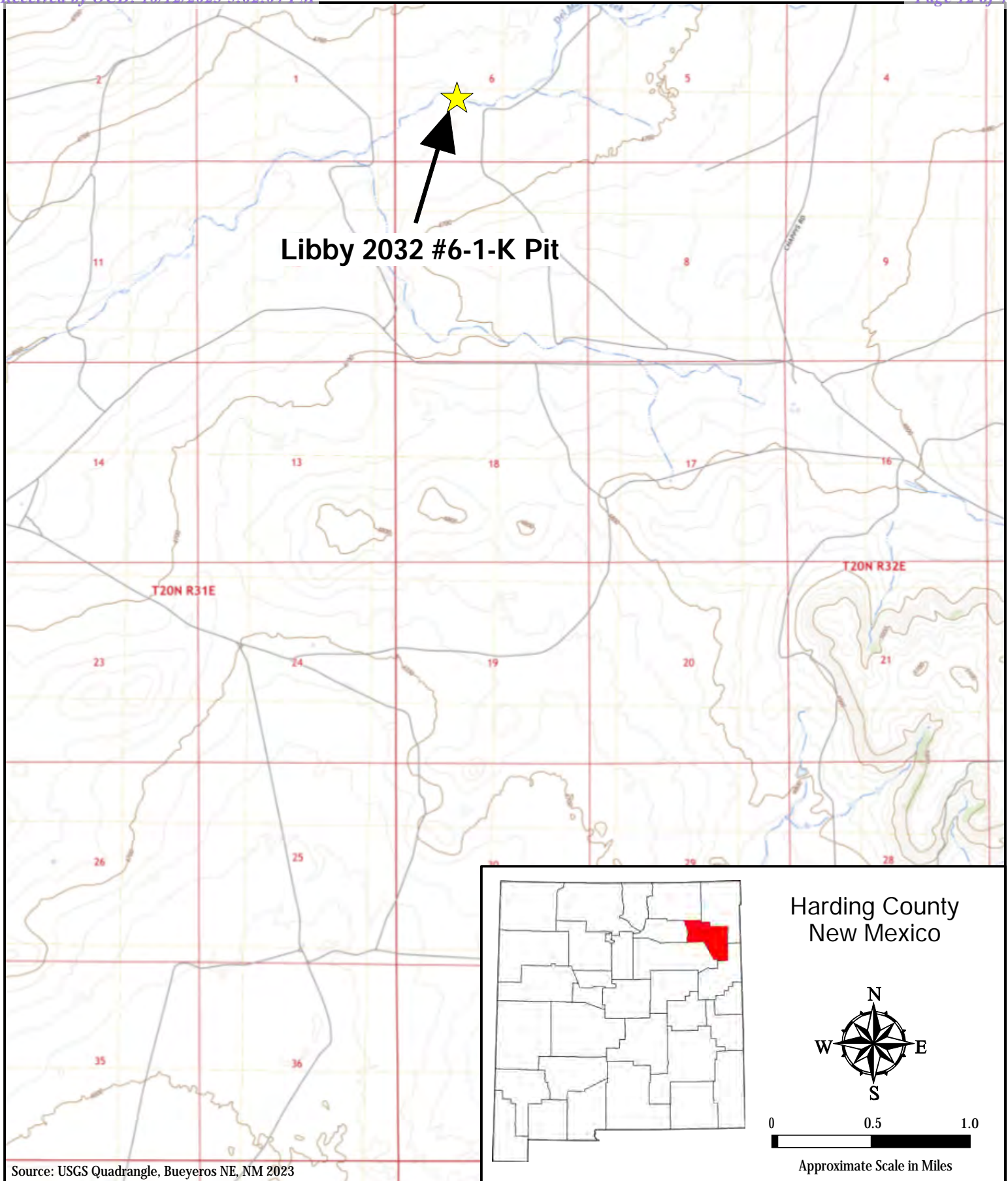
e-mail address:  
Edward.Pollitt@marrsolutions.com

Telephone:  
575-741-0153

Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## FIGURES

**TETRA TECH**

1500 CityWest Boulevard  
Suite 1000  
Houston, Texas 77042

**LIBBY 2032 #6-1-K PIT**  
**35.991296°, -103.583839°**  
**HARDING COUNTY, NEW MEXICO**  
**SITE LOCATION MAP**

PROJECT NO: 212C-HN-02468  
DATE: 09/29/2023  
DESIGNED BY: CHT

**Figure**  
**1**



Libby Minerals LLC 2032 #061  
API 30-021-20569



### Legend



Pit Footprint



5-Point Composite Sample Locations

Image Source: Google Earth, 2023



0 50 100

Approximate Scale in Feet



**TETRA TECH**

1500 CityWest Boulevard  
Suite 1000  
Houston, Texas 77042

**LIBBY 2032 #6-1-K PIT**  
**35.991296°, -103.583839°**  
**HARDING COUNTY, NEW MEXICO**  
**PIT CONFIRMATION SAMPLING PLAT**

PROJECT NO: 212C-HN-02468  
DATE: 09/29/2023  
DESIGNED BY: CHT

**Figure**  
**2**

Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## **ATTACHMENT 1: C-144 WITH APPROVED CLOSURE PLAN**



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-144  
Revised August 1, 2011

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOC District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOC District Office.

Pit, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

**Instructions:** Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.  
Operator: Reliant Exploration & Production, LLC OGRID #: 251905  
Address: 10817 West County Road 60 Midland, TX 79707  
Facility or well name: Libby Minerals LLC 2032 6-1-K  
API Number: 30-021-20569 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr K Section 6 Township 20N Range 32E County: Harding  
Center of Proposed Design: Latitude 35.9913660° N Longitude 103.5834113° W NAD: ☒ 1927 ☐ 1983  
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.  
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC  
Temporary: ☒ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A  
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☒ String-Reinforced  
Liner Seams: ☐ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: 850 bbl Dimensions: L 80" x W 80" x D 6"

3.  
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC  
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other \_\_\_\_\_  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_

4.  
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Tank Construction material: \_\_\_\_\_  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

5.  
☐ **Alternative Method:**  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.



6.

**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet☐ Alternate. Please specify \_\_\_\_\_

7.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)☐ Screen ☐ Netting ☐ Other \_\_\_\_\_☐ Monthly inspections (If netting or screening is not physically feasible)

8.

**Signs:** Subsection C of 19.15.17.11 NMAC☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers☐ Signed in compliance with 19.15.16.8 NMAC

9.

**Administrative Approvals and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

**Please check a box if one or more of the following is requested, if not leave blank:**☒ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC**Instructions:** The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ NoUnknown

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☒ Yes ☐ No\*see notes on  
Siting Criteria  
page

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

*(Applies to temporary, emergency, or cavitation pits and below-grade tanks)*

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☒ No☐ NA

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

*(Applies to permanent pits)*

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No☒ NA

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☒ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☒ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ NoUnknown\*see notes on  
Siting Criteria  
page

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☒ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☒ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☒ No



11.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

12.

**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_
- ☐ Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

**Proposed Closure:** 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System
- ☐ Alternative
- Proposed Closure Method: ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
- ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC



16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)**Instructions:** Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?☐ Yes (If yes, please provide the information below) ☐ No**Required for impacted areas which will not be used for future service and operations:**☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No☐ NA

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

18.

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC



19.

**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Vance VanderburgTitle: ManagerSignature: *VV*Date: 5-16-13e-mail address: vance@reliantholdingsltd.comTelephone: 432-559-7085

20.

**OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)OCD Representative Signature: *Ed Martin*Approval Date: 6/13/2013Title: **DISTRICT SUPERVISOR**

OCD Permit Number: \_\_\_\_\_

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*☒ Closure Completion Date: 09/06/2023

22.

**Closure Method:**☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)  
☐ If different from approved plan, please explain.

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:***Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*Disposal Facility Name: Commercial LandfillDisposal Facility Permit Number: NM-01-0019

Disposal Facility Name: \_\_\_\_\_

Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?☐ Yes (If yes, please demonstrate compliance to the items below) ☒ No No drilling was performed and pit was never used*Required for impacted areas which will not be used for future service and operations:*

- ☒
- Site Reclamation (Photo Documentation)
- 
- ☒
- Soil Backfilling and Cover Installation
- 
- ☒
- Re-vegetation Application Rates and Seeding Technique

24.

**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☒
- Proof of Closure Notice (surface owner and division)
- 
- ☐
- Proof of Deed Notice (required for on-site closure)
- 
- ☒
- Plot Plan (for on-site closures and temporary pits)
- 
- ☒
- Confirmation Sampling Analytical Results (if applicable)
- 
- ☐
- Waste Material Sampling Analytical Results (required for on-site closure)
- 
- ☒
- Disposal Facility Name and Permit Number
- 
- ☒
- Soil Backfilling and Cover Installation
- 
- ☒
- Re-vegetation Application Rates and Seeding Technique
- 
- ☐
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 35.991296°Longitude -103.583839°NAD: ☐ 1927 ☒ 1983

25.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Edward PollisterTitle: Production ForemanSignature: *EP*Date: 10-9-23e-mail address: edward.pollister@maurresources.comTelephone: 575-741-0153





---

Nelson Consulting, Inc.

---

Environmental, Compliance, and GIS Services

**Hydrogeological Data****Well Name:**

Libby Minerals LLC 2032 6-1-K

**Topography:**

This location is within the Great Plains Physiographic Province, with flat to rolling prairie and scattered hills and bluffs. The land gradually rises westward, giving way to the frontal ranges of the Rocky Mountains. Elevation of the referenced well is approximately 4660 feet above mean sea level. The location is on a northern slope. According to topographic maps and an aerial photo, the well pad is located less than 100 feet south of Del Muerto Creek.

**Soils:**

Soils within the proposed project area are mapped as wet alluvial land. This soil type is found in depressions. Within this soil type, the water table may be found at the surface; the depth to the water table could exceed 80 inches. There is no frequency of ponding, but flooding is considered frequent.

Within 500 feet of the proposed well pad, Springer loamy fine sand, 1- to 9-percent slopes, are also found. These soils are found on backslopes. They are considered well drained and have a depth to water table of greater than 80 inches. They have no frequency of ponding or flooding.

**Source:**

Natural Resources Conservation Service. No Date. Web Soil Survey.

<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed January 2013.**Geology:**

The surface geology within the proposed project area is Jurassic Entrada Sandstone, a formation of the San Rafael group. Entrada sandstone consists of fine-grained sandstone in regular beds less than a foot thick. It includes thin sheets and small aggregates of gypsum, many lenticular beds of gypsiferous shale, some calcareous shales, and small amounts of conglomerate made up of pellets of clay and fragments of quartz.

**Sources:**

U.S. Geological Survey (USGS). 2005. GIS shapefile: nmgeol\_dd\_polygon.

<http://mrddata.usgs.gov/geology/state/metadata/nm.html>.Weaver, Lance. 2006. Utah Geology. [http://www.utahgeology.com/fm\\_entrada.php](http://www.utahgeology.com/fm_entrada.php).**Surface Hydrology:**

Northeastern New Mexico is drained by the Arkansas River and its tributary, the Canadian River. Runoff from the location would flow northward, directly into Del Muerto Creek. According to topographic maps and an aerial photo, the well pad is located less than 100 feet south of Del Muerto Creek.

**Ground Water Hydrology:**

This location is within central Harding County, New Mexico, within the Great Plains Physiographic Province. The High Plains aquifer extends westward into eastern Harding County, but in the proposed project region there is no principal aquifer. Aquifers do not exist here, yield too little water to wells to be significant, or yield sufficient water to supply local requirements but are not extensive enough to be classified as a major aquifer.

Depth to groundwater is unknown at this location, because the nearest recorded well with available water-depth information is approximately 1.9 miles from the location (see Siting Criteria Map I, attached). The nearest water wells identified on the OSE shapefile are listed below:

600 Reilly Ave.  
Farmington, NM 87401Phone (505) 327-6331  
Fax (505) 327-6332835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301Phone (970) 375-9703  
Fax (970) 247-0941



---

Nelson Consulting, Inc.

---

## Environmental, Compliance, and GIS Services

Well	Distance/Direction from Proposed Project Area	Elevation	Depth to Water
TU 1034	~2.0 miles east-northeast	~4750 ft	50 ft
TU 1037	~1.9 miles northeast	~4720 ft	10 ft

## Sources:

United States Geological Survey. 2001. Groundwater Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C. <http://capp.water.usgs.gov>.

New Mexico Office of the State Engineer. 2011. GIS shapefile: ose\_wells\_July2011.  
[http://www.ose.state.nm.us/water\\_info\\_data.html](http://www.ose.state.nm.us/water_info_data.html).

600 Reilly Ave.  
Farmington, NM 87401

Phone (505) 327-6331  
Fax (505) 327-6332

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (970) 375-9703  
Fax (970) 247-0941





## Nelson Consulting, Inc.

Environmental, Compliance, and GIS Services

### Siting Criteria Compliance Demonstrations

#### **1. Depth to groundwater (should not be less than 50 feet):**

Depth to groundwater is unknown at this location, because the nearest recorded well with available water-depth information is approximately 1.9 miles from the location (see Siting Criteria Map 1). The nearest water wells identified on the OSE shapefile are listed below:

Well	Distance/Direction from Proposed Project Area	Elevation	Depth to Water
TU 1034	~2.0 miles east-northeast	~4750 ft	50 ft
TU 1037	~1.9 miles northeast	~4720 ft	10 ft

#### **2. Distance to watercourse (should not be within 300 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake):**

Topographic maps and aerial photos indicate that the pit could be less than 100 feet from Del Muerto Creek (see Siting Criteria Maps 1 and 2, attached). Del Muerto Creek is not continuously flowing. Per 19.15.17.7[G] NMAC, a "significant watercourse" means a watercourse with a defined bed and bank either named on a USGS 7.5-minute quadrangle map or a first order tributary of such watercourse." Del Muerto Creek is named on a USGS 7.5-minute quadrangle. Based on aerial photos, this watercourse likely has a defined bed and bank. Therefore, it is likely that Del Muerto Creek is considered a significant watercourse.

Per NMOCD Siting Requirements (19.15.17.10[b] NMAC), an alternative distance between the proposed pit and the significant watercourse can be approved by the NMOCD District Office based on the operator's demonstration that surface and ground water would be protected. Ed Martin (NMOCD, Harding County) was consulted regarding this issue. Mr. Harding reported that he would visit the proposed well pad site after staking; measure the distance from the proposed pit to Del Muerto Creek; discuss well pad design features with the operator; and, based on the adequacy of design features associated with the project, determine an alternative distance requirement between the proposed pit and Del Muerto Creek. If the proposed pit is located further than the alternative distance from the watercourse, a temporary pit could be permitted.

#### **3. Distance to buildings (should not be within 300 feet of a permanent residence, school, hospital, institution, or church):**

Aerial photos indicate that the pit would not be within 300 feet of any of these locations (see Siting Criteria Map 2).

#### **4. Distance to springs or wells (should not be within 500 feet of a private, domestic fresh water well or spring used by less than five (5) households or within 1000 feet of any other fresh water well or spring):**

Topographic maps and OSE shapefiles indicate the pit would not be within 1000 feet of any recorded well or spring (see Siting Criteria Maps 1 and 2).

#### **5. Presence within incorporated area (should not be within incorporated municipal boundaries or within defined municipal fresh water well field covered under municipal ordinance):**

Topographic maps, aerial photos, and OSE shapefiles indicate the pit would not be within an incorporated area or municipal fresh water well field (see Siting Criteria Maps 1 and 2).

#### **6. Distance to wetlands (should not be within 500 feet):**

The presence of wetlands within 500 feet of the proposed pit is unknown. The USFWS has not mapped this location for wetlands. Aerial photos do not indicate the presence of wetlands within 500 feet of the proposed pit. However, the soil type (described under "Hydrogeological Data, above") and the presence of Del Muerto Creek within a 500-foot radius indicate the potential for wetlands. A site verification would be required to determine whether hydrophytic vegetation, hydric soils, and/or wetland hydrology are present within 500 feet of the proposed well pad.

600 Reilly Ave.  
Farmington, NM 87401

Phone (505) 327-6331  
Fax (505) 327-6332

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (970) 375-9703  
Fax (970) 247-0941





---

Nelson Consulting, Inc.

---

## Environmental, Compliance, and GIS Services

Ed Martin (NMOCD, Harding County) was consulted regarding this issue. Mr. Harding reported that when he conducts the post-staking inspection of the proposed well pad, he will inspect a 500-foot radius surrounding the proposed pit for the presence of wetlands. If no wetlands are present within a 500-foot radius, a temporary pit could be permitted.

**7. Location above subsurface mine (should not overlie a subsurface mine):**

The pit would not overlie a mine. The New Mexico Energy, Minerals, and Natural Resources Department Mines, Mills, and Quarries map website is currently not available. However, the 2009 Mines, Mills, and Quarries map, a topographic map, and an aerial photo indicate that there are no subsurface mines in the area (see Mines, Mills, and Quarries map, attached).

**8. Presence within unstable area (should not be within an unstable area):**

A topographic map and aerial photo indicate the location would not be within an unstable area. The location would be on a gentle slope (See Siting Criteria Maps 1 and 2).

**9. Presence within floodplain (should not be within a 100-year floodplain):**

The location has not been mapped by FEMA (see FEMA Map Service Center screenshot, attached). Therefore, the proposed pit is not located within a FEMA-designated 100-year floodplain.

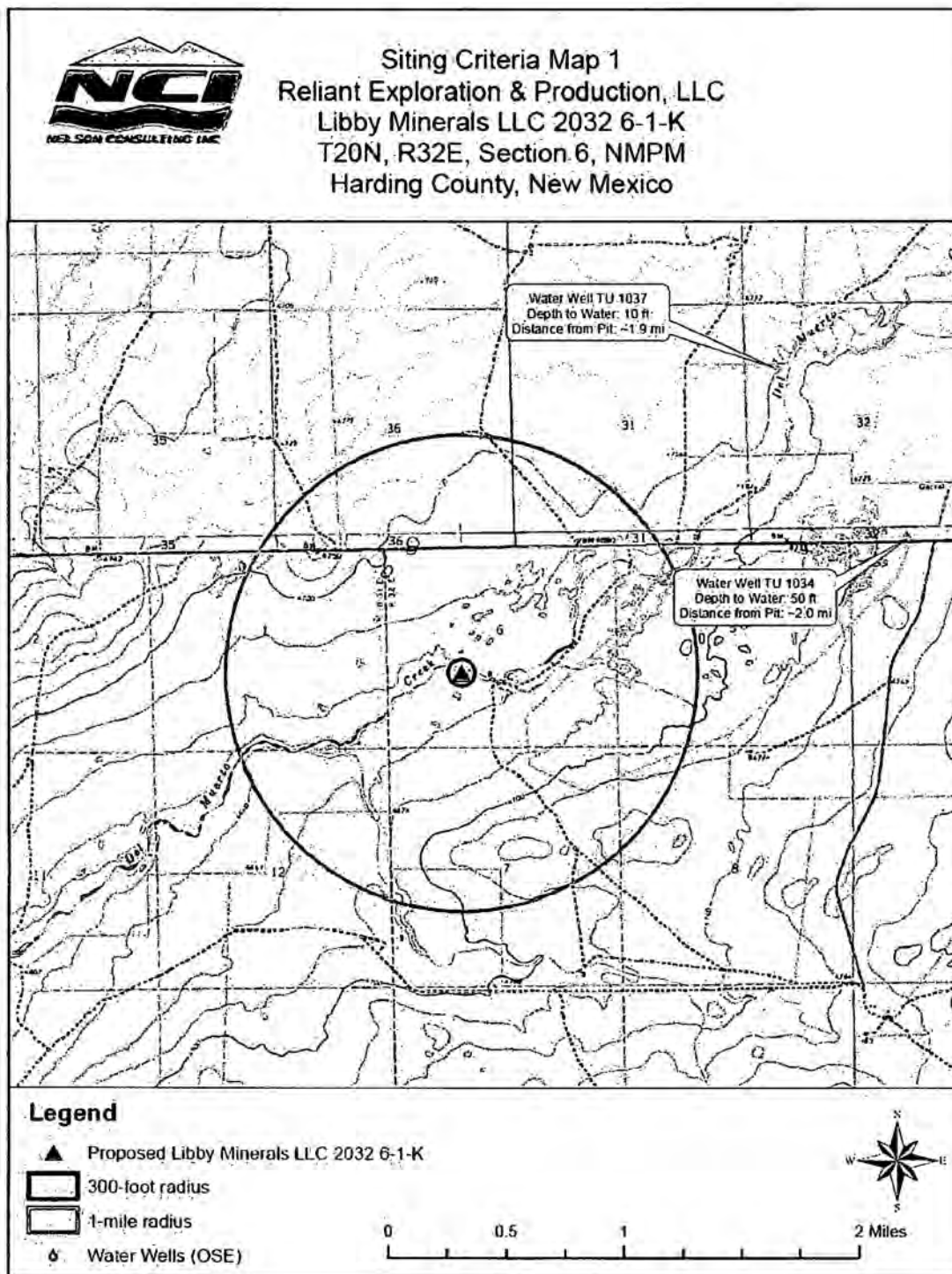
---

600 Reilly Ave.  
Farmington, NM 87401Phone (505) 327-6331  
Fax (505) 327-6332835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301Phone (970) 375-9703  
Fax (970) 247-0941



Nelson Consulting, Inc.

Environmental, Compliance, and GIS Services



600 Reilly Ave.  
 Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
 Durango, CO 81301

Phone (505) 327-6331  
 Fax (505) 327-6332

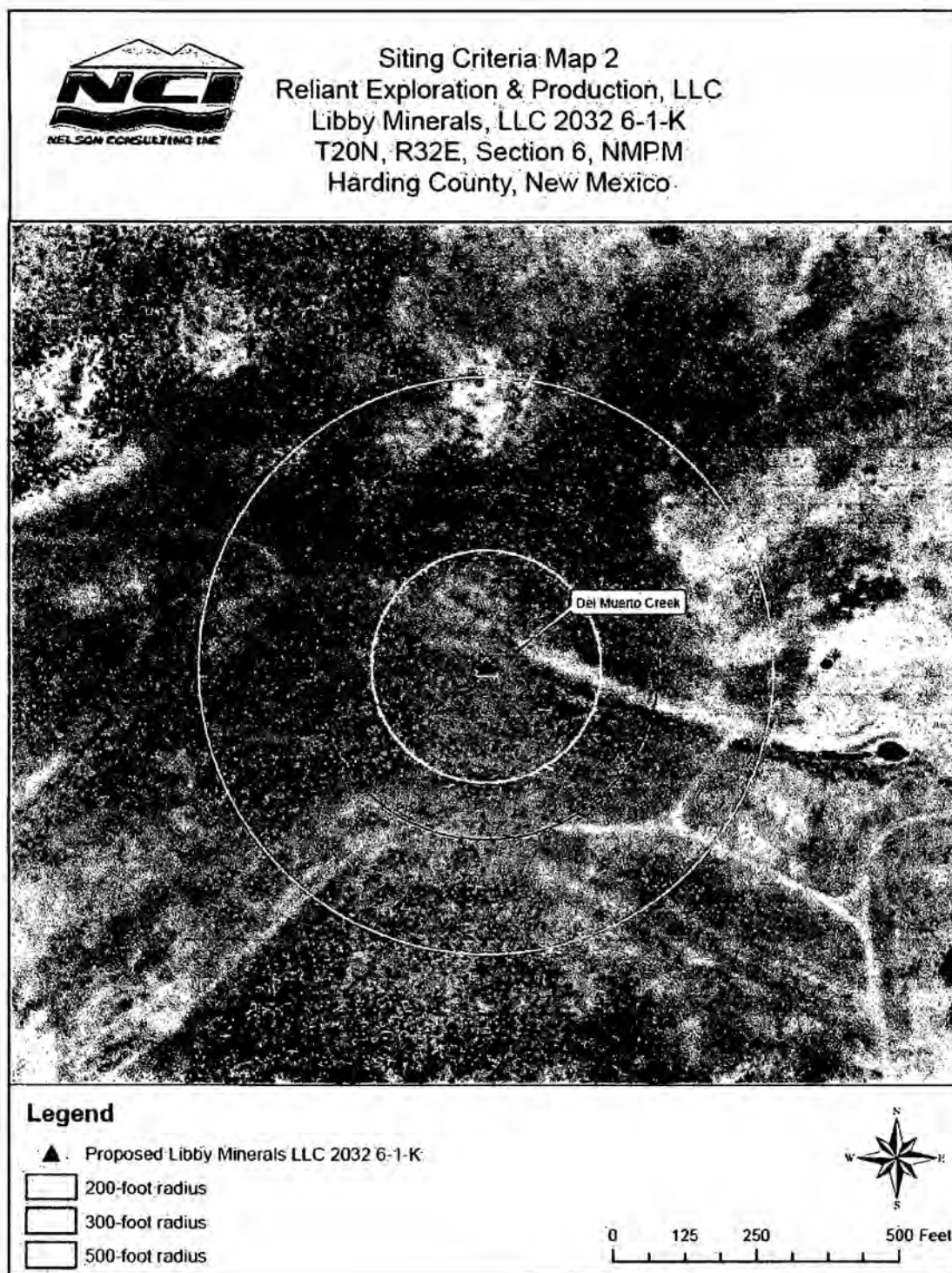
Phone (970) 375-9703  
 Fax (970) 247-0941





Nelson Consulting, Inc.

Environmental, Compliance, and GIS Services



600 Reilly Ave.  
 Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
 Durango, CO 81301

Phone (505) 327-6331  
 Fax (505) 327-6332

Phone (970) 375-9703  
 Fax (970) 247-0941



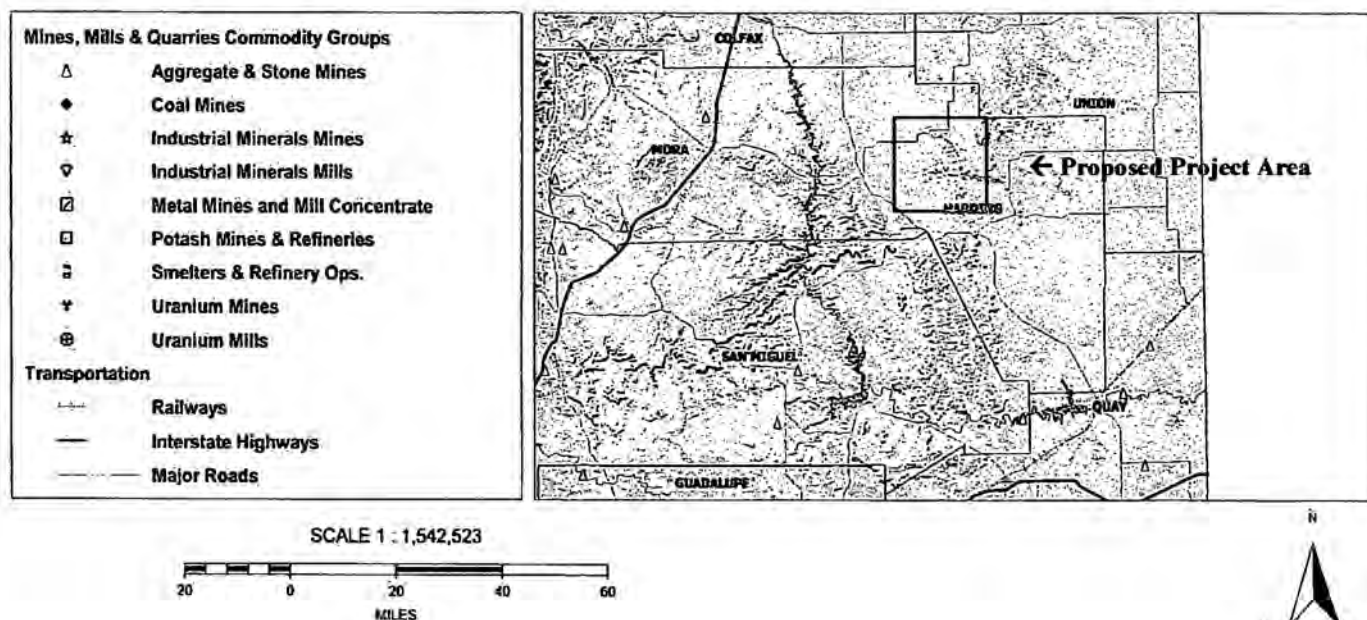


Nelson Consulting, Inc.

Environmental, Compliance, and GIS Services

## MINES, MILLS, AND QUARRIES IN NEW MEXICO

### MMQonline Public Version



<http://www.emnrd.state.nm.us/MMD/MMQonline/MMQonline-PUBLIC-PROD.mwf>

Tuesday, March 31, 2009 11:13 AM

#### Source:

New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals Database. 2008. <http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm>. Accessed March 2009.

600 Reilly Ave.  
Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (505) 327-6331  
Fax (505) 327-6332

Phone (970) 375-9703  
Fax (970) 247-0941



Nelson Consulting, Inc.

Environmental, Compliance, and GIS Services

FEMA Map Service Center

Product Catalog | Map Search | Quick Order | Digital Post Office | Help | Cart (1 item) | Log on

Home > Product Catalog > FEMA Issued Flood Maps

**Current FEMA Issued Flood Maps**

State : 35 NEW MEXICO      County : 35021 HARDING COUNTY      Community : 350129 HARDING CO \*

Sorry there are no items to display for this State, County and Community.  
Please check the Future or Historic Maps for available panels.

\* designates unincorporated areas

FEMA.gov | Accessibility | Privacy Policy | FAQ | Site Help | Site Index | Contact Us

FEMA Map Service Center, P.O. Box 3617 Oakton, Virginia 22124-9617 Phone: (877) 336-2627  
Adobe Acrobat Reader required to view certain documents. Click here to download.

May 8, 2013

600 Reilly Ave.  
Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (505) 327-6331  
Fax (505) 327-6332

Phone (970) 375-9703  
Fax (970) 247-0941





## Nelson Consulting, Inc.

### Environmental, Compliance, and GIS Services

#### Design Plan (Based on Appropriate Requirements of 19.15.17.11 NMAC)

Design and construction specifications for this temporary pit are as follows:

- Prior to constructing the pit, topsoil would be stripped and stockpiled for use as final cover or fill at the time of closure.
- An upright sign (at least 12" x 24" with lettering at least 2" in height) would be placed conspicuously on the fence surrounding the pit, unless the site has an existing well sign (complying with 19.15.3.103 NMAC). The sign would be posted in a manner and location such that the legend can be easily read, and would contain the following information: operator's name, legal location (quarter-quarter or unit letter, section, township, and range), and emergency telephone number(s).
- If an adequate surrounding perimeter fence does not already prevent unauthorized access to the well site or facility, the pit would be fenced or enclosed in a manner that prevents unauthorized access. The fence would be at least four (4) foot in height with at least four (4) strands of barbed wire evenly spaced between the top and bottom. Fences would be maintained in good repair. During drilling or workover operations, three (3) sides of the pit would be fenced; the side adjacent to the drilling or workover rig would remain open only during such operations.
- The pit would be designed and constructed to ensure the confinement of liquids.
- The pit would be constructed with a properly constructed foundation and interior slopes consisting of a firm, unyielding base. The pit would be smooth and free of rocks, debris, sharp edges, or irregularities to prevent the liner's rupture or tearing. Slopes would be no steeper than two (2) horizontal feet to one (1) vertical foot (2H:1V).
- The pit would have a geomembrane liner with 20-mil string-reinforced LLDPE or its equivalent (approved by the division district office). This liner would be composed of an impervious, synthetic material resistant to petroleum hydrocarbons, salts, and acidic and alkaline solutions. The liner would be resistant to ultraviolet light. The liner would comply with EPA SW-846 method 9090A.
- Qualified personnel would perform field seaming. Liner seams would be minimized, particularly in corners and irregularly shaped areas. Field liner seams would be welded. Factory-welded seams would be used where possible. Prior to field seaming, liners would be overlapped four (4) to six (6) inches and would be oriented parallel to the line of maximum slope (along, not across, the slope).
- Construction would avoid excessive stress-strain on the liner.
- Geotextile would be used under the liner where needed to reduce localized stress-strain or protuberances that may compromise the liner's integrity.
- The edges of all liners would be anchored in the bottom of a compacted, earth-filled trench that is at least 18" deep.
- The liner would be protected from any fluid force or mechanical damage at any point of discharge into or suction from the pit.
- A berm, ditch, proper sloping, or other diversion would be constructed around the pit to prevent run-on of surface water. During drilled operations, the edge of the pit adjacent to the drilling or workover rig may not have protection if the pit is being used to collect liquids escaping from the rig and run-on will not result in a breach of the pit.
- The volume of the pit would not exceed 10 acre-feet, including freeboard.

600 Reilly Ave.  
Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (505) 327-6331  
Fax (505) 327-6332

Phone (970) 375-9703  
Fax (970) 247-0941



## Nelson Consulting, Inc.

---

### Environmental, Compliance, and GIS Services

#### **Operating & Maintenance Plan (Based on Appropriate Requirements of 19.15.17.12 NMAC)**

Operating and maintenance specifications for this temporary pit are as follows:

- The pit would be maintained to contain liquids and solids, prevent contamination of fresh water, and protect public health of the environment.
- All drilling fluids would be recycled, reused, reclaimed, or disposed of in a manner approved by division rules and that prevents contamination of fresh water and protects public health and the environment.
- Hazardous waste would not be discharged into or stored in the pit.
- If the pit liner's integrity is compromised or if penetration of the liner occurs above the liquid's surface, the appropriate division district office would be notified within 48 hours of the discovery, and the liner would be repaired or replaced.
- If the pit develops a leak or if any penetration of the liner occurs below the liquid's surface, all liquid above the damage or leak line would be removed within 48 hours, the appropriate division district office would be notified within 48 hours, and the liner would be repaired or replaced.
- The injection or withdrawal of liquids from the pit would be accomplished via a header, diverter, or other hardware that prevents damage to the liner by erosion, fluid jets, or impact from installation and removal of hoses or pipes.
- Pit operation would prevent the collection of surface water run-on.
- An oil-absorbent boom or other device would be installed and maintained onsite to contain and remove oil from the pit's surface.
- Only fluids used or generated during drilling or workover processes would be discharged into the pit. The pit would remain free of miscellaneous solid waste or debris. A tank made of steel or other division district office-approved material would be used to contain hydrocarbon-based drilling fluids. Immediately after cessation of a drilling or workover operation, any visibly or measurable layer of oil would be removed from the surface of the pit.
- At least two (2) feet of freeboard would be maintained.
- The pit would be inspected at least once daily while the drilling or workover rig is onsite. Thereafter, the pit would be inspected weekly as long as liquids remain within it. An inspection log would be maintained and made available to the division district office upon request. A copy of the log would be filed with the division district office at the time of pit closure.
- All free liquids would be removed from the pit within 30 days from release of the drilling or workover rig. On form C-105 or C-103, the date of the drilling or workover rig's release would be noted. If necessary, an extension of up to three (3) months may be requested from the division district office; this extension may or may not be granted.
- Any liquids used for cavitation would be removed from the pit within 48 hours after completing cavitation. If it is not feasible to access the location within 48 hours, this would be demonstrated to the district office's satisfaction and additional time would be requested.

600 Reilly Ave.  
Farmington, NM 87401

Phone (505) 327-6331  
Fax (505) 327-6332

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (970) 375-9703  
Fax (970) 247-0941





## Nelson Consulting, Inc.

### Environmental, Compliance, and GIS Services

#### Closure Plan

(Based on Appropriate Requirements of Subsection C, 19.15.17.9 NMAC & 19.15.17.13 NMAC)

Closure specifications for this temporary pit are as follows:

- The pit would be closed within six (6) months from the date that the drilling or workover rig is released. If necessary, the division district office may grant an extension not to exceed three (3) months.
- All liquids from the pit would be removed prior to closure. Liquids would be disposed of at the Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003), unless they are recycled, reused, or reclaimed in a division district office-approved manner.
- All contents, including synthetic pit liners, would be excavated from the pit and transported to Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003).
- The soils beneath the pit would be tested to determine whether a release occurred. A five-point composite sample would be collected. In addition, grab samples would be gathered from any area that is wet, discolored, or showing evidence of a release. The samples would be sent to an approved laboratory and analyzed for benzene, total BTEX, TPH, the GRO and DRO combined fraction, and chlorides. The following should not be exceeded:
  - Benzene (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 0.2 mg/kg
  - BTEX (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 50 mg/kg
  - TPH (as determined by EPA SW-846 method 418.a or other division-approved EPA method): 2500 mg/kg
  - GRO and DRO combined fraction (as determined by EPA SW-846 method 8015M): 500 mg/kg
  - Chlorides (as determined by EPA method 300.1): 500 mg/kg or background concentration, whichever is greater

The division would be notified of the results on form C-141, at which point the division may require additional delineation.

- If it is determined that a release has occurred, Reliant would comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.
- If it is determined that a release has not occurred, or that any release doesn't exceed the above-specified concentrations, the pit excavation would be backfilled with compacted, non-waste-containing, earthen material. A division-prescribed soil cover would be constructed and the site would be recontoured and revegetated, per Subsections G, H, and I of 19.15.17.13 NMAC:
  - All areas associated with the pit that are no longer being used would be substantially restored to the condition that existed prior to oil and gas operations by placement of the soil cover (detailed below), recontouring to match original contours and surrounding topography, and revegetating (detailed below).

600 Reilly Ave.  
Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave, Suite 250  
Durango, CO 81301

Phone (505) 327-6331  
Fax (505) 327-6332

Phone (970) 375-9703  
Fax (970) 247-0941



## Nelson Consulting, Inc.

---

### Environmental, Compliance, and GIS Services

- If an alternative to the revegetation requirements is required to prevent erosion, protect fresh water, or protect human health and the environment, this alternative would be proposed to the surface owner. The proposed alternative, with written documentation demonstrating that the surface owner approves the alternative, would be submitted to the division for approval.
- Soil cover would consist of the background thickness of topsoil or one (1) foot of material suitable for establishing vegetation at the site, whichever is greater.
- Soil cover would be constructed to the site's existing grade and would prevent ponding of water and erosion of the cover material.
- The first growing season following pit closure, all disturbed areas associated with the pit and no longer being used would be seeded or planted.
- Seeding would be accomplished by drilling on the contour whenever practical, or by other division-approved methods. Vegetative cover equaling 70% of the native perennial vegetative cover (unimpacted by overgrazing, fire, or other damaging intrusion) would be obtained. This cover would consist of at least three (3) native plant species, including one (1) grass species but not including noxious weeds. That cover would be maintained through two (2) successive growing seasons, during which time no artificial irrigation would occur.
- Seeding or planting would be repeated until the required vegetative cover is successfully achieved.
- When conditions aren't favorable for the establishment of vegetation (such as during periods of drought), the division would be contacted for approval to delay seeding or planting, or for approval to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing, etc.
- The division would be notified when seeding or planting is completed, and when successful revegetation has been achieved.
- Within 60 days of closure, completion, a closure report would be submitted on form C-144, with necessary attachments, to document closure activities, including sampling results, a plot plan, and backfilling details. In this closure report, Reliant would certify that all information in the report and attachments is correct and that Reliant has complied with all applicable closure requirements and conditions specified in the approved Closure Plan. A plat of the temporary pit location would be provided on form C-105.

600 Reilly Ave.  
Farmington, NM 87401

835 E. 2<sup>nd</sup> Ave. Suite 250  
Durango, CO 81301

Phone (505) 327-6331  
Fax (505) 327-6332

Phone (970) 375-9703  
Fax (970) 247-0941



Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		<b>State of New Mexico</b> <b>Energy, Minerals and Natural Resources</b>  <b>Oil Conservation Division</b> <b>1220 South St. Francis Dr.</b> <b>Santa Fe, NM 87505</b>			<b>Form C-105</b> Revised April 3, 2017					
		1. WELL API NO. <b>30-021-20569</b>								
		2. Type of Lease <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> FED/INDIAN								
		3. State Oil & Gas Lease No. <b>N/A</b>								
<b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>										
4. Reason for filing:  <input type="checkbox"/> <b>COMPLETION REPORT</b> (Fill in boxes #1 through #31 for State and Fee wells only)  <input checked="" type="checkbox"/> <b>C-144 CLOSURE ATTACHMENT</b> (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)						5. Lease Name or Unit Agreement Name <b>Libby Minerals LLC 2032</b>				
						6. Well Number: <b>Libby Minerals LLC 2032 #061</b>				
7. Type of Completion: <input type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input checked="" type="checkbox"/> OTHER <b>Pit Closure</b>										
8. Name of Operator <b>Breitbart Operating LP</b>						9. OGRID <b>370080</b>				
10. Address of Operator						11. Pool name or Wildcat				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										
13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released		16. Date Completed (Ready to Produce)			17. Elevations (DF and RKB, RT, GR, etc.)			
		Well canceled								
18. Total Measured Depth of Well		19. Plug Back Measured Depth		20. Was Directional Survey Made?			21. Type Electric and Other Logs Run			
22. Producing Interval(s), of this completion - Top, Bottom, Name										
<b>23. CASING RECORD (Report all strings set in well)</b>										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN		SIZE	DEPTH SET	PACKER SET		
26. Perforation record (interval, size, and number)						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
<b>28. PRODUCTION</b>										
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)				
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio			
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)				
29. Disposition of Gas (Sold, used for fuel, vented, etc.)							30. Test Witnessed By			
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.						Plat Attached		33. Rig Release Date: <b>N/A</b>		
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude				Longitude			NAD83			
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature <i>Edward Pollister</i>			Printed Name <b>Edward Pollister</b>		Title <b>Production Foreman</b>		Date <b>10-9-23</b>			
E-mail Address <b>edward.pollister@mavresources.com</b>										



**Libby Minerals LLC 2032 #061**  
**API 30-021-20569**



### Legend



Pit Footprint



5-Point Composite Sample Locations

Image Source: Google Earth, 2023



0 50 100

Approximate Scale in Feet



**TETRA TECH**

1500 CityWest Boulevard  
 Suite 1000  
 Houston, Texas 77042

**LIBBY 2032 #6-1-K PIT**  
**35.991296°, -103.583839°**  
**HARDING COUNTY, NEW MEXICO**  
**PIT CONFIRMATION SAMPLING PLAT**

PROJECT NO: 212C-HN-02468  
 DATE: 09/29/2023  
 DESIGNED BY: CHT

**Figure**  
**2**

Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## **ATTACHMENT 2: PROPERTY OWNER NOTIFICATION**





**Breitburn Operating LP**  
(a wholly owned subsidiary of  
Maverick Natural Resources, LLC)  
1111 Bagby Street • Suite 1600  
Houston • Texas • 77002  
713-437-8000

August 22, 2023

Libby Cattle Company  
400 Libby Rd  
Bueyeros NM

Re: Pit Closure – Libby Minerals LLC 2032-6-1-K  
Section 6-20N-32E, Harding, NM

Dear Mr Libby,

I am writing to inform you that Breitburn Operating, LP (a wholly owned subsidiary of Maverick Natural Resources, LLC) is in the process of finalizing the closure of a Pit located on your property referenced above and below. This decision is part of our ongoing commitment to safeguarding the environment and adhering to the highest industry standards.

**Libby Minerals LLC 2032-6-1-K**  
**API: 30-021-20569**  
**Section 6-20N-32E, Harding, NM**  
**Closure Date:9-5-23**

We want to assure you that this operation is designed to have minimal impact on your property and daily activities. Our team will be working diligently to ensure a smooth and efficient closure process. Safety protocols will be strictly followed, and we will strive to mitigate any inconvenience to you.

If you have any questions at all please do not hesitate to reach either out to me or the production foreman for the area, Edward "Buck" Pollister, using our provided contact information below. We appreciate your cooperation and understanding.

Thanks,  
**Edward Pollister**  
Production Foreman  
[Edward.pollister@mavresources.com](mailto:Edward.pollister@mavresources.com)  
575-673-0151

**Melanie Busbey O'Carroll**  
Landman II  
[Melanie.busbey@Mavresources.com](mailto:Melanie.busbey@Mavresources.com)  
713-437-8340

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Libby Cattle Company  
400 Libby Rd  
Bucyrus NM 88415



9590 9402 8096 2349 1987 22

2. Article Number (Transfer from service label)

9589 0710 5270 0018 4814 47

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

*Dixie Fernandez*

☐ Agent

☐ Addressee

B. Received by (Printed Name)

Dixie Fernandez

C. Date of Delivery

8/24/23

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature

☐ Adult Signature Restricted Delivery

☐ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Signature Confirmation™

☐ Signature Confirmation

☐ Restricted Delivery

Mail Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt



Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## **ATTACHMENT 3: LABORATORY ANALYTICAL DATA**



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

---

September 01, 2023

CHUCK TERHUNE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: 35.991341 -103.583908

Enclosed are the results of analyses for samples received by the laboratory on 08/31/23 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

TETRA TECH  
 CHUCK TERHUNE  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	08/31/2023	Sampling Date:	08/30/2023
Reported:	09/01/2023	Sampling Type:	Soil
Project Name:	35.991341 -103.583908	Sampling Condition:	Cool & Intact
Project Number:	LIBBY PIT CLOSURE	Sample Received By:	Tamara Oldaker
Project Location:	MOSQUERO, NM		

**Sample ID: 2 (H234751-01)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2023	ND	2.01	100	2.00	1.87	
Toluene*	<0.050	0.050	08/31/2023	ND	1.91	95.7	2.00	2.58	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.97	98.6	2.00	2.70	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.91	98.5	6.00	2.27	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	183	91.5	200	1.06	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	191	95.7	200	2.75	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 93.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





---

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

---

### Notes and Definitions

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

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager

## Analysis Request of Chain of Custody Record



**Tetra Tech, Inc.**

901 W Wall Street, Ste 100  
Midland, Texas 79701  
Tel (432) 682-4559  
Fax (432) 682-3946

Page 3 of 3

Page 4 of 4

[illegible]



Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## **ATTACHMENT 4: PHOTOGRAPH DOCUMENTATION**







Pit Closure Report  
Breitburn Operating LP  
Libby 2032 #6-1-K Drilling Pit  
API Number: 30-021-20569

October 4, 2023

## ATTACHMENT 5: NMSLO SEED MIXTURE



**NMSLO Seed Mix****Sandy Loam (SL)****SANDY LOAM (SL) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
Galleta grass	Viva, VNS, So.	2.5	F
Little bluestem	Cimmaron, Pastura	2.5	F
Blue grama	Hachita, Lovington	2.0	D
Sideoats grama	Vaughn, El Reno	2.0	F
Sand dropseed	VNS, Southern	1.0	S
<b>Forbs:</b>			
Indian blanketflower	VNS, Southern	1.0	D
Parry penstemon	VNS, Southern	1.0	D
Blue flax	Appar	1.0	D
Desert globemallow	VNS, Southern	1.0	D
<b>Shrubs:</b>			
Fourwing saltbush	VNS, Southern	2.0	D
Common winterfat	VNS, Southern	1.0	F
Apache plume	VNS, Southern	0.75	F
<b>Total PLS/acre</b>		<b>17.75</b>	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry penstemon is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.
- If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.



**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 275278

CONDITIONS

Operator: BREITBURN OPERATING LP 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 370080
	Action Number: 275278
	Action Type: [C-144] Temporary Pit Plan (C-144T)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	Closure report approved. Soil samples showed no indication of release and the report showed that all closure plan protocols were followed. Pit closure was completed on 09/06/2023. The pit site disturbed area has been prepared for reseeding which will be performed in the spring of 2024. The signed C-144 can be found at OCD Imaging: <a href="https://ocdimage.emnrd.nm.gov/imaging/WellFileView.aspx?RefType=WF&amp;RefID=30021205690000">https://ocdimage.emnrd.nm.gov/imaging/WellFileView.aspx?RefType=WF&amp;RefID=30021205690000</a>	11/2/2023