

**Leking, Geoffrey R, EMNRD**

30-025-39593

**From:** Randall Hicks [r@rthicksconsult.com]  
**Sent:** Thursday, March 17, 2011 4:33 PM  
**To:** Leking, Geoffrey R, EMNRD; jamos@blm.gov  
**Cc:** 'Larry Scott'  
**Subject:** Lusk Federal  
**Attachments:** TransmitClosurePlan.pdf; ClosurePlanFinal.pdf; C-144Lusk31#3\_Closure3-11.pdf

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Geoffrey and Jim

These documents were hand delivered to NMOCD today.

Jim, I am unsure if you get this stuff or if I should be sending it to others – let me know if I am clogging your email.

When NMOCD approves a final closure plan, we will notify NMOCD and BLM of the schedule for closure in a manner consistent with the Rule. Jim will get a certified letter return receipt request.

Thanks all. Call me with any technical questions regarding the closure plan.

Randall Hicks  
505-266-5004  
505-238-9515 - cell  
901 Rio Grande NW F-142  
Albuquerque, NM 87104

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# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

March 16, 2011

Mr. Geoffrey Leking  
NMOCD District  
1625 French Drive  
Hobbs, NM 88240  
Via E-Mail and Hand Delivery

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RE: Lusk 31 Federal #3, Lynx Petroleum Consultants, Closure Plan

Dear Geoffrey:

This submission includes:

1. This transmittal letter
2. C-144 Form signed by the operator
3. Modified C-144 Supplemental Documentation which includes a revised closure plan for the drilling pit

The revised closure plan consists of:

- A. A plan for in-place closure, which is identical to a recently approved C-144 for two pits in Eddy County
- B. A plan for excavation and removal in the event that on-site closure criteria cannot be met, which is identical to a recently approved C-144 for two pits in Eddy County and
- C. A plan for on-site trench burial, which follows the same format as the previously-approved in-place closure plan and follows the letter of the Rule.

Preliminary sampling of the pit shows that the outer horse shoe cell (cut brine cell) of the drilling pit meets NMOCD criteria for in-place closure. Sampling also suggests that adding the waste material from the brine cell (inner horse shoe) to the large cut brine waste may raise the chloride concentration higher than the standards for in-place closure. Therefore, we propose in-place closure for the cut brine cell and trench burial for the brine cell.

Please note that the plan for on-site trench burial calls for burial of the stabilized waste in a "separate trench". To minimize the disturbance footprint, we hope to stabilize the brine waste in the suction side of the cell sufficiently to allow us to:

- i.) Transfer the waste to the discharge (east) side of the brine cell
- ii.) Conduct the confirmation sampling of the west side of the brine pit,
- iii.) Excavate a separate trench below the west side of the brine cell of the pit
- iv.) Collect additional confirmation samples at the bottom of the trench (if characterization of a release proves necessary)
- v.) Line this separate trench pursuant to the Rule and the attached plan
- vi.) Conduct additional waste stabilization in the east side of the pit
- vii.) Transfer the stabilized waste (and any wet or discolored soil from beneath the east side of the brine cell) to the burial trench and
- viii.) Complete the on-site trench burial as outlined in the attachment



March 16, 2011

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If NMOCD can approve this modified closure plan by March 23, we will mobilize to the site for closure during the week of March 28. As stated in the plan, we will notify NMOCD and the surface owner "by email at least 72 hours, but not more than one week, prior to any closure operation." Due to work restrictions associated with wildlife breeding, we will work only during hours permitted by the surface owner.

Please contact me if you have any questions.

Sincerely,

R.T. Hicks Consultants, Ltd.

A handwritten signature in black ink, appearing to read "Randall T. Hicks". The signature is stylized with a large, looped "R" and a distinct "H".

Randall T. Hicks

President

Copy: Larry Scott, Lynx Petroleum Consultants  
Jim Amos, Bureau of Land Management (via E-mail)

**C-144 Supplemental Documentation – Closure Plan  
Lusk 31 Federal #3 API 30-025-39593**

**THE OPERATOR, LYNX PETROLEUM CONSULTANTS, WILL ADHERE TO THE APPROPRIATE MANDATES OF NMOCD RULES INCLUDING:**

- Using appropriate engineering principles and practices
- Following applicable liner manufacturers' requirements.

This closure plan describes the proposed closure method and the proposed procedures and protocols to implement and complete the closure. Because the operator proposes an on-site closure method, this plan also proposes other methods to be used if the initial method does not satisfy the on-site closure standards specified in Subsection F of 19.15.17.13 NMAC or, if applicable, other on-site closure standards that the environmental bureau in the division's Santa Fe office approves.

## **Closure Plan- General Conditions**

### ***Protocols and Procedures***

The operator will use the following procedures and protocols to implement the closure:

- The operator of the temporary pit will remove all liquids from the temporary pit prior to closure and either:
  - a. Dispose of the liquids in a division-approved facility, or
  - b. Recycle, reuse or reclaim the liquids for use in drilling another well.
- Fluids on and entrained in the drilling waste will be removed from the pit for re-use or disposal.
- Precipitation and/or the addition of fresh water to the pit will cause rinsing of waste and removal of constituents of concern via the pit drainage system to the above-ground tank. Fluids removed from the pit are temporarily stored in the above-ground tank and are removed for re-use or disposal. Both temporary storage of fluids from the pit and reuse or disposal will be conducted in a manner approved by division rules that prevents the contamination of fresh water and protects public health and the environment.
- In-place closure is the selected closure alternative.
- The operator will close the temporary pit within six months of the date that the operator releases the drilling or workover rig. An extension not to exceed three months may be requested of the Artesia district office.
- The operator will close the pit by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- The operator of the temporary pit will notify the Hobbs division district office verbally or by email at least 72 hours, but not more than one week, prior to any closure operation. The notice will include the operator's name and the location to be closed by unit letter, section, township and range, well's name, number and API number.
- Within 60 days of closure completion, the operator will submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where applicable.



## **C-144 Supplemental Documentation – Closure Plan**

### **Lusk 31 Federal #3 API 30-025-39593**

- In the closure report, the operator will certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the approved closure plan.
- The operator will provide a plat of the pit location on form C-105 within 60 days of closing the temporary pit.

If the standards for in-place closure are not met, the operator may elect to implement excavation and removal as described in this plan.

#### ***Site Reclamation Plan***

After the operator has closed the pit, the operator will reclaim the pit location and all areas associated with the pit, including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. The operator will substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

#### ***Soil Cover Design Plan***

If the operator removes the pit contents or remediates any contaminated soil to the division's satisfaction, the soil cover will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

The soil cover for the preferred closure option, in place burial, will consist of a minimum of four feet of compacted, non-waste containing, earthen material. The soil cover will include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

The operator will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

#### ***Re-vegetation Plan***

1. The first growing season after the operator closes the pit, including access roads, the operator will seed or plant the disturbed areas.
2. The operator will accomplish seeding by drilling on the contour whenever practical.
3. The operator will obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation).
4. The operator will follow BLM mandates for the seed mixture (Appendix A) not including noxious weeds, and maintain that cover through two successive growing seasons.



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Lusk 31 Federal #3 API 30-025-39593**

5. During the two growing seasons that prove viability, there will be no artificial irrigation of the vegetation.
6. The operator will repeat seeding or planting until it successfully achieves the required vegetative cover.
7. If conditions are not favorable for the establishment of vegetation, such as periods of drought, the operator may request that the division allow the operator to delay seeding or planting until soil moisture conditions become favorable or may require the operator to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices.
8. The operator will notify the division when it has seeded or planted and when it successfully achieves re-vegetation.

## **In Place Closure Plan**

### ***General Provisions***

1. The operator has provided the surface owner notice of the operator's proposal of an on-site closure (see approved C-144 application for proof of notice to the landowner, BLM.)
2. The operator will report the exact location of the on-site burial on form C-105 filed with the division.
3. Because the surface is owned by the Federal Government and administered by the BLM, no deed exists. Therefore, the operator cannot file a deed notice identifying the exact location of the on-site burial with the county clerk in the county. The exact location of the on-site burial will be transmitted to the BLM by copy of the form C-105 discussed above.

### ***Siting Criteria Compliance Demonstration for In-Place Burial***

Based upon requirements of 19.15.17.10 NMAC, given in the approved C-144.

### ***Protocols and Procedures for In-Place Burial***

In addition to the General Conditions Protocols and Procedures listed above, the operator will employ the following steps for in-place closure of the pit.

- A. The pit liner will be removed above the mud level and below the anchor for re-use if possible. We will use a utility knife and manual power to remove the liner.
- B. The anchored liner will be removed with excavation equipment and placed in the pit.
- C. The operator will stabilize or solidify the contents to a bearing capacity sufficient to support the temporary pit's final cover.
- D. The operator will not mix the contents with soil or other material at a mixing ratio of greater than 3:1, (3 parts soil or other material to 1 part drilling waste). Specifically, the drilling waste will be stabilized in the pit by adding no more than 3 parts clean fill derived from the excavation of the pit to 1 part drilling waste.



## **C-144 Supplemental Documentation – Closure Plan Lusk 31 Federal #3 API 30-025-39593**

- E. After stabilization such that the waste material will support the soil cover, the mixture will be sampled pursuant to NMOCD Rules (see below).
- F. Upon closure of the temporary pit, the operator will cover the geomembrane lined, filled, temporary pit with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site as described in this plan. Specifically, a 4-foot thick soil cover consistent with NMOCD Rules will be placed over the stabilized waste.
- G. The operator will place a steel marker at the center of an on-site burial. The steel marker will be not less than four inches in diameter and will be cemented in a three-foot deep hole at a minimum. The steel marker will extend at least four feet above mean ground level and at least three feet below ground level. The operator name, lease name and well number and location, including unit letter, section, township and range, and that the marker designates an on-site burial location will be welded, stamped or otherwise permanently engraved into the metal of the steel marker.

### ***Waste Material Sampling Plan for In Place Burial***

Because the ground water is more than 100 feet below the bottom of the buried waste (see Supplemental Documentation with C-144), the operator will collect at a minimum, a five point, composite sample of the contents of the temporary pit after treatment or stabilization.

The purpose of the sampling after the waste material is stabilized is to demonstrate that:

- Benzene, as determined by EPA SW 846 method 8021B or 8260B, does not exceed 0.2 mg/kg;
- Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 50 mg/kg;
- The GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg;
- TPH, as determined by EPA method 418.1 does not exceed 2500 mg/kg;
- Chloride, as determined by EPA method 300.1, does not exceed 1000 mg/kg or the background concentration, whichever is greater.

### ***Proof of Surface Owner Notice***

The operator will notify the surface owner (BLM) by certified mail, return receipt requested, that the operator plans to close the temporary pit. Evidence of mailing of the notice is sufficient to demonstrate compliance with this requirement.

## **On-Site Trench Burial Plan**

In the event that a portion of the drilling pit (e.g. a brine cell used for drilling the salt section) does not meet the criteria for in-place closure, the operator may elect to construct and use an on-site trench for closure.



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***General Provisions***

- A. The operator has provided the surface owner notice of the operator's proposal of an on-site closure (see approved C-144 application for proof of notice to the landowner, BLM.)
- B. The operator will report the exact location of the on-site burial on form C-105 filed with the division.
- C. Because the surface is owned by the Federal Government and administered by the BLM, no deed exists. Therefore, the operator cannot file a deed notice identifying the exact location of the on-site burial with the county clerk in the county. The exact location of the on-site burial will be transmitted to the BLM by copy of the form C-105 discussed above.

***Siting Criteria Compliance Demonstration for In-Place Burial***

Based upon requirements of 19.15.17.10 NMAC, given in the approved C-144.

***Protocols and Procedures for On-Site Trench Burial***

In addition to the General Conditions Protocols and Procedures listed above, the operator will employ the following steps for On-Site Trench Burial of the pit.

- 1. The pit liner will be removed above the mud level for re-use if possible. We will use a utility knife and manual power to remove the liner.
- 2. The operator will stabilize the waste to permit transfer from the pit to the separate trench.
- 3. The operator will further stabilize or solidify the contents to a bearing capacity sufficient to support the final cover.
- 4. The operator will not mix the contents with soil or other material at a mixing ratio of greater than 3:1, (3 parts soil or other material to 1 part drilling waste). Specifically, the drilling waste will be stabilized in the pit by adding no more than 3 parts clean fill derived from the excavation of the pit to 1 part drilling waste.
- 5. After stabilization such that the waste material will support the soil cover, the mixture will be sampled pursuant to NMOCD Rules (see below) and placed in the burial trench.

***Construction/Design of Burial Trench***

The operator will design and construct on-site trench for closure as specified in 19.15.17.13B.(2) NMAC. Specifically:

- I. The operator will excavate a separate trench to an appropriate depth that allows for the installation of the geomembrane bottom liner, burial of the drilling waste, geomembrane liner cover and the division-prescribed soil cover required pursuant to 19.15.17.13.H NMAC.
- II. The on-site trench will have a properly constructed foundation and side walls consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.



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- III. Geotextile will be placed under the liner where needed to reduce localized stress-strain or protuberances that may otherwise compromise the liner's integrity.
- IV. The on-site trench will be constructed with a geomembrane liner that consists of a 20-mil string reinforced LLDPE liner
- V. The geomembrane liner is composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner material will be resistant to ultraviolet light. Liner compatibility will comply with EPA SW-846 method 9090A.
- VI. The contractor for the operator will minimize liner seams and orient them up and down, not across a slope. The operator will use factory welded seams where possible. Prior to field seaming, the operator will overlap liners four to six inches and orient liner seams parallel to the line of maximum slope, *i.e.*, oriented along, not across, the slope. The operator will minimize the number of field seams in corners and irregularly shaped areas.
- VII. Qualified personnel will perform field seaming. The contractor will weld field liner seams.
- VIII. The contractor for the operator will install sufficient liner material to reduce stress-strain on the liner.
- IX. The operator will ensure that the outer edges of all liners are secured for the placement of the excavated waste material into the drilling pit (on-site trench).
- X. The contractor for the operator will fold the outer edges of the drilling pit (on-site trench) liner to overlap the waste material in the pit (on-site trench) prior to the installation of the geomembrane cover.
- XI. The contractor for the operator will install a geomembrane cover over the waste material in the lined trench. The operator will install the geomembrane cover in a manner that prevents the collection of infiltration water in the lined trench and on the geomembrane cover after the soil cover is in place.
- XII. The geomembrane cover will consist of a 20-mil string reinforced LLDPE liner. The geomembrane cover will be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. Cover compatibility will comply with EPA SW-846 method 9090A.

***Waste Material Sampling Plan for On-Site Trench Burial***

Because the ground water is more than 100 feet below the bottom of the buried waste (see previously submitted Supplemental Documentation to C-144), the operator will collect at a minimum, a five point, composite sample of the contents of the portion of the temporary pit scheduled for trench burial after treatment or stabilization. The purpose of the sampling after the waste material is stabilized is to demonstrate that:

- The TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 2500 mg/kg.
- Using EPA SW-846 method 1312



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- The chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 3,000 mg/L or the background concentration, whichever is greater,
- The concentrations of the inorganic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC or the background concentration, whichever is greater, and
- The concentrations of the organic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC, unless otherwise specified by NMOCD Rules

***Confirmation Sampling Plan for On-Site Trench Burial***

The operator will test the soils beneath the temporary pit after excavation and prior to trench burial to determine whether a release has occurred. To determine if a release has occurred, the operator and/or qualified contractor will collect, at a minimum:

- A five point, composite sample;
- Individual grab samples from any area that is wet, discolored or showing other evidence of a release.

The operator or qualified contractor will analyze these samples using NMOCD approved EPA methods for:

- Benzene,
- Total BTEX,
- TPH,
- The GRO and DRO combined fraction and
- Chloride

The purpose of this sampling is to demonstrate that:

1. Benzene, as determined by EPA SW-846 method 8021B or 8260B does not exceed 0.2 mg/kg;
2. Total BTEX, as determined by EPA SW-846 method 8021B or 8260B does not exceed 50 mg/kg;
3. The GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg;
4. The TPH, as determined by EPA method 418.1 does not exceed 2,500 mg/kg; and
5. Chloride, as determined by EPA method 300.1, does not exceed 1,000 mg/kg or the background concentration, whichever is greater.



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***Reporting***

The operator shall notify the division of its results on form C-141. If the operator or the division determines that a release has occurred, then the operator will comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.

***Proof of Surface Owner Notice***

The operator will notify the surface owner (BLM) by certified mail, return receipt requested, that the operator plans to close the temporary pit. Evidence of mailing of the notice will demonstrate compliance with this requirement.

**Excavation and Removal Closure Plan**

**IF THE CRITERIA FOR IN-PLACE CLOSURE OR TRENCH BURIAL ARE NOT MET, THE OPERATOR WILL ADHERE TO NMOCD RULES AND IMPLEMENT THE FOLLOWING ACTIONS**

***Protocols and Procedures for Excavation and Removal***

The operator will close the temporary pit by excavating all contents and, synthetic pit liners and transferring those materials to one of the division-approved facilities listed below:

Lea Land, LLC	NM-01-0035
Controlled Recovery, Inc.	NM-01-0006

If the sampling program described below demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (b) of Paragraph (1) of Subsection B of 19.15.17.13 NMAC, the operator will:

1. Backfill the temporary pit excavation with compacted, non-waste containing, earthen material;
2. Construct a division-prescribed soil cover as described in the Soil Cover Design Plan (above);
3. Recontour and re vegetate the site as described in the Re-vegetation Plan (above).

***Confirmation Sampling Plan for Excavation and Removal***

The operator will test the soils beneath the temporary pit after excavation to determine whether a release has occurred. To determine if a release has occurred, the operator and/or qualified contractor will collect, at a minimum:

- A five point, composite sample;
- Individual grab samples from any area that is wet, discolored or showing other evidence of a release

The operator or qualified contractor will analyze these samples for:

- Benzene,
- Total BTEX,

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- TPH,
- The GRO and DRO combined fraction and
- Chloride

The purpose of this sampling is to demonstrate that:

- Benzene, as determined by EPA SW-846 method 8021B or 8260B does not exceed 0.2 mg/kg;
- Total BTEX, as determined by EPA SW-846 method 8021B or 8260B does not exceed 50 mg/kg;
- The GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg;
- The TPH, as determined by EPA method 418.1 does not exceed 2,500 mg/kg; and
- Chloride, as determined by EPA method 300.1, does not exceed 1,000 mg/kg or the background concentration, whichever is greater.

***Reporting***

The operator shall notify the division of its results on form C-141. If the operator or the division determines that a release has occurred, then the operator will comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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

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Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD 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: Lynx Petroleum Consultants, OGRID #: 013645  
Address: PO Box 1708, Hobbs NM 88241  
Facility or well name: Lusk 31 Federal #3  
API Number: 30-025-39593 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr NW/SE Section 31 Township 18S Range 32E County: Lea  
Center of Proposed Design: Latitude 32 42 07.04 Longitude -103 48 13.75 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: 16,700 bbl Dimensions: L 136 x W 104 x D 6-10

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 \_\_\_\_\_ Not Applicable \_\_\_\_\_
- ☐ 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 19.15.3.103 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 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 checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 & 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 – **PREVIOUSLY SUBMITTED**  
☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC – **PREVIOUSLY SUBMITTED**  
☒ 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): Larry Scott Title: President

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

e-mail address: lrsco@leaco.net Telephone: 575 392 6950

20.

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

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_ 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: \_\_\_\_\_

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

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

*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 \_\_\_\_\_ Longitude \_\_\_\_\_ 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): \_\_\_\_\_ Title: \_\_\_\_\_

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

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