

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMNM038690
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 575.748.6946		8. Well Name and No. LUSK DEEP UNIT A COM 16
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 18 T19S R32E SWSW Lot 4 785FSL 660FWL		9. API Well No. 30-025-35053-00-S1
		10. Field and Pool, or Exploratory LUSK
		11. County or Parish, and State LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG Operating LLC proposes to plug and abandon this well.

Procedure is attached.

RECLAMATION PROCEDURE
ATTACHEDSEE ATTACHED FOR
CONDITIONS OF APPROVAL**Ground Level Dry Hole Marker, LPL Timing Requirements*

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #242707 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs Committed to AFMSS for processing by JENNIFER MASON on 05/07/2014 (14JAM0055SE)	
Name (Printed/Typed) STORMI DAVIS	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 04/21/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>James G. Ames</i>	Title <i>SEAS</i>	Date <i>5-29-14</i>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <i>CFO</i>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

MSS/OCD 6/16/2014

JUN 17 2014

Lusk Deep Unit A-16 SWD
785' FSL, 660' FWL
M-18-19s-32e
Lea Co., NM
API: 30-025-35053

Plug and Abandonment Procedure
16 Apr 14

HOBBS OCD
JUN 16 2014
RECEIVED

Basic Data:

13-3/8" @ 804' Circ. Cmt.
8-5/8" @ 4520' Circ. Cmt. With 1"
5-1/2" @ 12740' TOC @ 1550' temp. survey

5.5"/17ppf/S95/LTC Burst=9190 psi, 7352 psi at 80% Nom. ID 4.892" Drift ID 4.767"
/17ppf/L80/LTC Burst=7740 psi, 6192 psi at 80%

Injection Perfs: 11260-11306' (94) Strawn Lime

Squeezed Perfs:

4780-5412' Delaware Cherry Canyon
6910-6924' Delaware Brushy Canyon
8304-8531' 1st BS Sand
8787-8807' BS Carbonate
9144-9310' 2nd BS Sand
DV tool @ 10740'
10869-10872' Canyon

Formation Tops:

Top of Salt: 770'
Base of Salt/Yates: 2550'
Delaware: 4585'
Bone Spring: 6975'
Wolfcamp: 10387'
Strawn: 11130'

Class C Cement: 14.8 ppg, 1.32 cfps, 6.3 gwps
Class H Cement: 15.6 ppg, 1.18 cfps, 5.2 gwps

Objective: Plug and abandon well. See wellbore schematic. Notify BLM at least 24 hrs. before starting plugging operations.

Procedure:

1. Notify BLM Carlsbad at least 24 hrs before starting plugging operations.
2. MIRU WSU, couple frac tanks, open-top steel pit and NU double ram BOP (2-7/8" pipe, blind rams), close rams, test annulus and BOP to 1000 psi, unseat packer and TOOH laying down the injection string and packer. Take delivery of 2-7/8" work string.

3. MIRU wireline, install lubricator, run gauge ring/junk basket to approx. 11210', RIH with CIBP and set CIBP at 11200'. Load casing with cut brine if not already full. RIH with perf guns and shoot 4 shots at 860'.
4. Open 8-5/8" x 5-1/2" outlet to frac tank or steel pit, pump water down 5-1/2" casing and establish circulation down the 5-1/2" casing and out of the 8-5/8" x 5-1/2" annulus. Close the valve on the annulus.
5. RIH with open-ended tubing with bull plugged perf sub on bottom, tag CIBP set at 11200' and spot 70 sx Class H neat (some retarder may be necessary at this depth) on top of plug. Pull 20 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 10690', re-spot plug. This plug covers the Strawn, the Canyon perfs 10869-10872' and the DV tool at 10740'. Plug calculates 634' long and should occupy 10565-11200' inside casing.
6. Spot 180 bbls mud laden fluid at top of plug (9 ppg brine with 25 sx salt gel per 100 bbls of brine).
7. With end of tubing at 10450', spot 30 sx Class H neat (retarder if needed) to cover top of Wolfcamp at 10387'. Pull 10 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 10337', re-spot plug. Plug calculates 271' long and should occupy 10179-10450' inside casing.
8. With end of tubing at 9360', spot 40 sx Class H neat. Pull 15 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 9094', re-spot plug. This plug covers the lowermost Bone Spring perfs 9144-9310'. Plug calculates 362' long and should occupy 8997-9360' inside casing.
9. With end of tubing at 8590', spot 45 sx Class H neat. Pull 15 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 8250', re-spot plug. This plug covers the uppermost Bone Spring perfs 8304-8531'. Plug calculates 408' long and should occupy 8182-8590' inside casing.
10. With end of tubing at 7025', spot 30 sx Class C neat to cover top of Bone Spring at 6975' and Delaware Brushy Canyon perfs 6910-6924'. Pull 10 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 6860', re-spot plug. Plug calculates 304' long and should occupy 6721-7025' inside casing.
11. With end of tubing at 5470', spot 25 sx Class C neat. Pull 10 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 5320', re-spot plug. This plug covers the lowermost Delaware Cherry Canyon perfs 5370-5412'. Plug calculates 253' long and should occupy 5216-5470' inside casing.
12. With end of tubing at 4830', spot 45 sx Class C neat. Pull 20 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 4470', re-spot plug. This plug covers the 8-5/8" casing shoe at 4520', top of Delaware at 4585' and uppermost Delaware Cherry Canyon perfs 4780-4794'. Plug calculates 456' long and should occupy 4374-4830' inside casing.
13. With end of tubing at 3020', spot 65 sx Class C neat to cover top of lost circulation zone at 3016' and top of Yates/base of salt at 2550'. Pull 20 stands, WOC for 3-4 hrs and tag plug. If plug tagged deeper than 2450', re-spot plug. Plug calculates 659' long and should occupy 2361-3020' inside casing.
14. Tie onto 5-1/2" casing and pump 60 sx Class C neat down the casing and up the 5-1/2" x 8-5/8" casing annulus to cover the 13-3/8" casing shoe at 804' and the top of salt at 770'. Displace plug to approx. 615' with 14 bbls fluid. WOC for 3-4 hrs and tag plug. If plug tagged deeper than

720', let's visit with BLM petroleum tech concerning the rest of the procedure. Plug calculates 245' long and should occupy 615-860' inside 5-1/2" casing and inside 8-5/8" x 5-1/2" casing annulus.

15. Cut off wellhead and run 1" tubing to 100' inside the 8-5/8" x 5-1/2" annulus. Spot 20 sx Class C neat to fill annulus from 100' to surface. Run 1" tubing inside the 5-1/2" casing and spot 15 sx Class C neat to fill the casing from 100' to surface. These plugs have 37% excess on the annulus and 52% excess inside the casing.
16. Weld plate onto 8-5/8" stub. Weld a 4" diameter extension to the stub plate that has an 8" x 8" steel plate on top located 2 inches above ground level. See attached requirements for ground level dry hole markers. The following information needs to be placed on the marker plate:

COG Operating LLC
Lusk Deep Unit A 16 SWD
785' fsl, 660' fwl
Sec. 18, T19S, R32E
NMNM-038690, API 30-025-35053

17. Cut off anchors, and reclaim location per BLM specs.

Kbc/lusk deep unit a 16 swd p&a proc 16 apr 14

Requirements for ground level dry hole markers
Well Identification Markers
Conditions of Approval (COA)

The BLM Carlsbad Field Office (CFO) Conditions of Approval (COA) Requires that ground level dry hole markers be placed on well within the Lesser Prairie Chicken habitat area. The dry hole markers will be to the following specifications. The operator will construct the markers as follows:

1. An 8 inch X 8 inch steel plate 1/8 to 3/16 of an inch thick is to be placed on the old dry hole marker stand pipe 2 inches from ground level, in the Lesser Prairie Chicken habitat area.
2. Steel plate may be welded or bolted approximately 2 inches from ground level on the stand pipes. If plates are bolted to the stand pipe, the person installing the plate will be required to weld a pipe collar on the plate and place a minimum of two set screws/bolt on each collar. Aluminum data plates may be bolted with minimum 1/4 inch bolt and locking nuts or self tapping fine threaded screws. A minimum of one in each corner is to be installed on each plate.
3. An 8 inch x 8 inch aluminum plate, which is 12 gauge or .080 sign material (1/8 inch aluminum plate may be used in place of the .080 plate) with the required information for that well stamped or engraved in a minimum 3/8 inch tall letter or number.
4. The following information will be stamped or engraved on the 8 inch X 8 inch aluminum plate in the following order.
 - a. First row: Operators name
 - b. Second row: Well name and number
 - c. Third row: Legal location to include 1/4 1/4, Section, Township, and range. If the legal location cannot be placed on one row it can be split into two rows with the 1/4 1/4 (example: 1980 FNL 1980 FWL) being on the top row.
 - d. Fourth row: Lease Number and API number.
 - i. Example marker plate: (attached)

NMOCD Order No. R-12965 also required the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a ground level dry hole marker was installed as required in the COA's from the BLM.

P D B

400 HLC + 200 C

TOC 1550' TS

DV 2732'

LC @ 3016' Caplin Ref

8 7/8" / 24.32 / J55 / @ 4520'

1st: 500 In. FILL C + 200 C Did not circ.
2nd: 1000 In. FILL C + 200 C Did not circ.
Top Out: 6355 x C w/ 1" TOC 1380' Tag 1284'

4780-4794' (16)	Oil 7	Cement Squeezed Cherry Canyon Pressure Tested By hy Canyon
4892-4910' (20)	Oil 6	
4988-4996' (10)	Oil 5	
5060-5068' (10)	Oil 4	
5370-5412' (24)	Oil 3	
6710-24' (16)	Oil 1	

8304-8531' (15)	1st BS 5d	Cement Squeezed & Pressure Tested
8787-8807' (11)	Stray BS Dolo	
9144-9310' (16)	2nd BS 5d	

DV 10740'
10869-72' (62) Canyon } Cement Squeezed
Tested

11260-11306' (94) Strawn

11692-11696' (30) Atoka

12153-160' (6 spf) Mrnw

12265-272' (6 spf) Mrnw

12391-396' (31) Mrnw

12411-413' (8) Mrnw

12412-420' (49) Mrnw

12608-12618' (40) Austin

12690-12708' (109) Austin

5 1/2 / 17 / L80,575 / LTC @ 12740'

1st: 4505x Super H Circ 1306x

12 1/4"

7 7/8"

C10P + 35' ant
11692'

C10P + 35' ant
12100'

Amount to pipe 12465'

C10P @ 12580'

+ 35' ant.

C10P @ 12660'

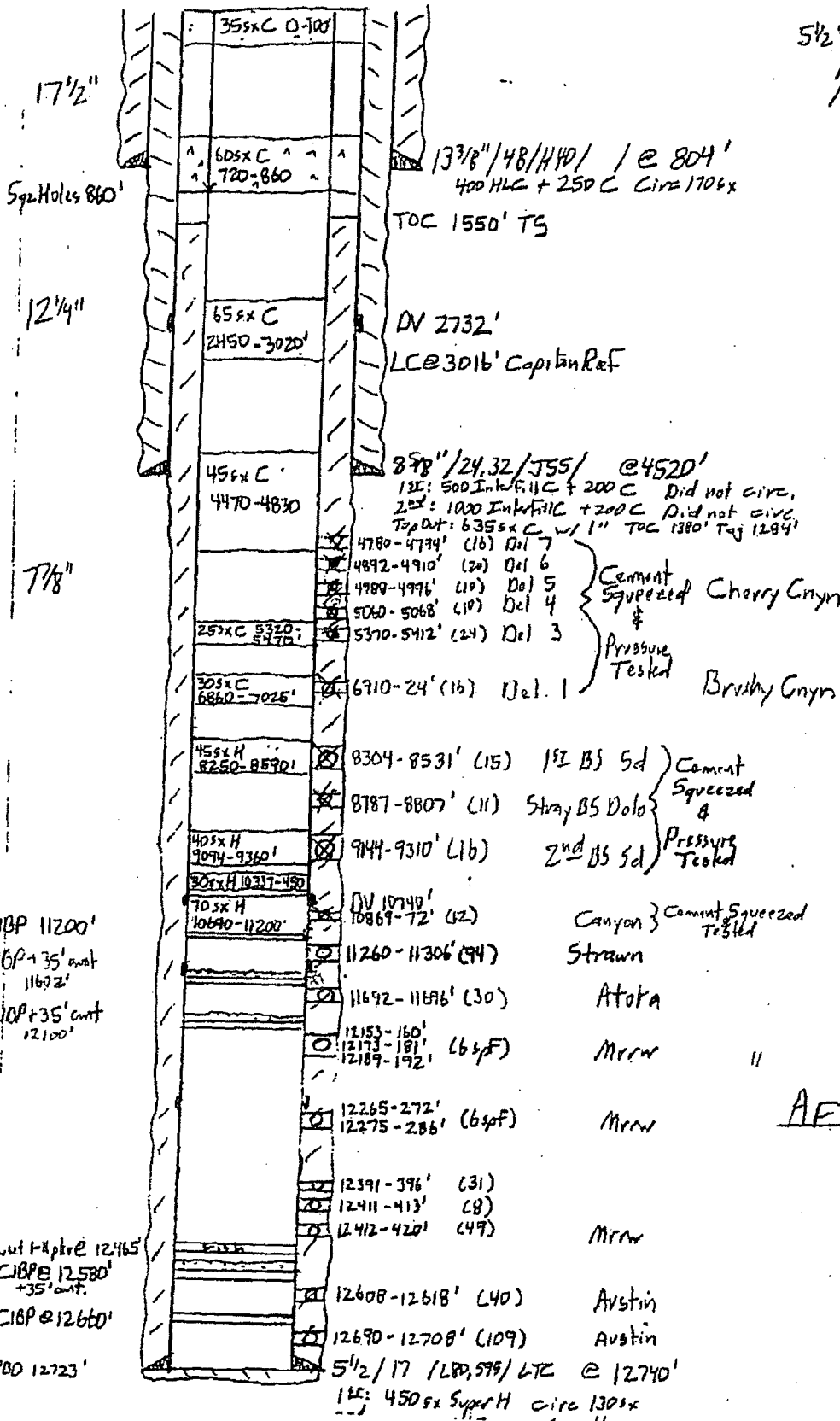
PBD 12723'

BEFORE

LV6K DP Unit A-16 SWD
 785' FSL, 660' FWL
 M-18-19s-32e
 Lea Co., NM

KB = 3595
 GL = 3578
 Zero = 17' A

5 1/2' / 17 / 595 / LTC O-1442'
 1 / 17 / L80 / LTC 1442' - 11031'
 1 / 17 / 595 / LTC 11031' - 12740'



**BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972**

**Permanent Abandonment of Federal Wells
Conditions of Approval**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

If you are unable to plug the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. In lieu of a cement plug in a cased hole, a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. **Dry Hole Marker:** All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).

7. **Subsequent Plugging Reporting:** Within 30 days after plugging work is completed, file one original and five copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. **Trash:** All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration conditions of approval will be developed and furnished to you.

Requirements for ground level dry hole markers

Well Identification Markers

Conditions of Approval (COA)

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 - d. Fourth row: Lease Number and API number.
 - i. Example marker plate: (attached)

NMOCD Order No. R-12965 also required the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a ground level dry hole marker was installed as required in the COA's from the BLM.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 E. Greene St.
Carlsbad, New Mexico 88220-6292
www.blm.gov/nm



In Reply Refer To: 1310

Reclamation Objectives and Procedures

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its pre-disturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any and all contaminants, scrap/trash, equipment, pipelines and powerlines. Strip and remove caliche, contour the location to blend with the surrounding landscape, re-distribute the native soils, provide erosion control as needed, rip and seed as specified in the original APD COA. This will apply to well pads, facilities, and access roads. Barricade access road at the starting point. If reserve pits have not reclaimed due to salts or other contaminants, submit a plan for approval, as to how you propose to provide adequate restoration of the pit area.

1. The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations must include adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.
2. For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Notice of Intent, or the Subsequent Report of Abandonment, Sundry Notices and Reports on Wells (Form 3160-5). Interim reclamation is to be completed within 6 months of well completion, and final reclamation is to be completed within 6 months of well abandonment.
3. The operator must file a Subsequent Report Plug and Abandonment (Form 3160-5) following the plugging of a well.
4. Previous instruction had you waiting for a BLM specialist to inspect the location and provide you with reclamation requirements. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation

equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.

5. The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.
6. It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the BLM objectives have been met submit a Final Abandonment Notice (FAN), Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.
7. At this time the BLM specialist will inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability of the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos
Supervisory Petroleum Engineering Tech
575-234-5909, 575-361-2648 (Cell)

Cody Layton
Natural Resource Specialist
575-234-5959

Solomon Hughes
Natural Resource Specialist
575-234-5951

Trishia Bad Bear
Natural Resource Specialist
575-393-3612

Jeffery Robertson
Natural Resource Specialist
575-234-2230

Amanda Lynch
Natural Resource Specialist
575-234-5922

Duncan Whitlock
Environmental Protection Specialist
575-234-5926

Jessie Rice
Natural Resource Specialist
575-234-5913

Jennifer Van Curen
Environmental Protection Specialist
575-234-5905

Indra Dahal
Natural Resource Specialist
575-234-5996

Linda Denniston
Environmental Protection Specialist
575-234-5974