



Well: Lotos B Federal #1

Field: South Sand Dunes

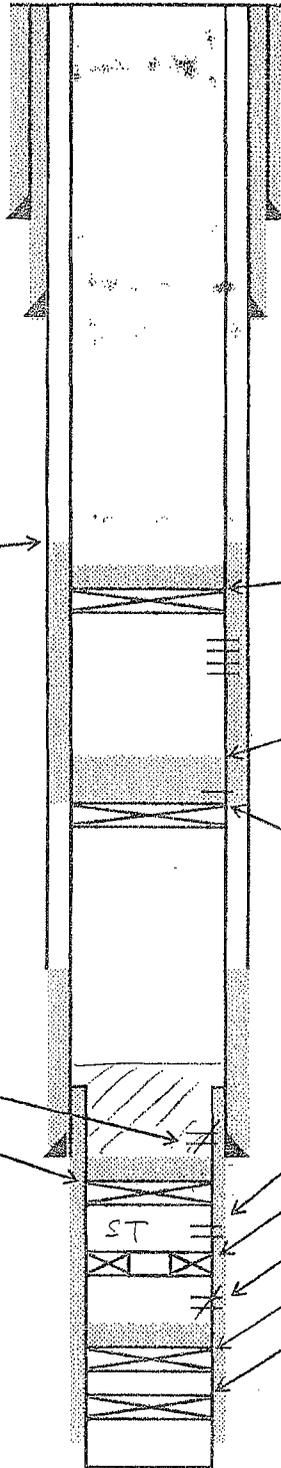
Reservoir:

**Location:**  
 GPS: 32.22993 -103.76708  
 1980' FSL & 1980' FWL  
 Unit Letter: K  
 Section No: 10  
 Twp: 24S Range: 31E  
 County: Eddy State: NM

**Elevations:**  
 GL: 3,457'  
 KB: 3,479'  
 DF:

**Wellbore Diagram**

*CURRENT*



**Well ID Info:**  
 Chevno: KW4553  
 API No: 30-015-26395  
 Spud Date: 6/23/1990  
 Drill End Date: 9/9/1990  
 Compl. Date: 9/23/1990  
 Last Prod:

Surface Csg: 20" 94#, 106.5#, 147#  
 Set: @ 671' w/ 1225 sx cmt  
 Hole Size: 26"  
 Circ: Yes TOC: Surface  
 TOC By: Circulation

Intermediate Csg: 13-3/8" 61#, 68#  
 Set: @ 4,316' w/ 2600 sx cmt  
 Hole Size: 17-1/2"  
 Circ: No TOC: Surface  
 TOC By: Top-off w/ 500 sx cmt via 1" pipe.

TOC @ 8,100'  
 CIBP @ 8,135'  
 w/ 35' cmt

Brushy Canyon  
 Perfs: 8,185' - 8,210'

TOC @ 8,297'

Sqz Perf @ 8,327'  
 Sqz w/ 250 sx cmt.  
 Annular cmt @ 8,010'

CIBP @ 8,330'  
 CIBP @ 8,291  
 + 210

Production Csg: 9-5/8" 43.5#, 47#, 5  
 Set: @ 11,750' w/ 350 sx cmt  
 Hole Size: 12-1/4"  
 Circ: No TOC: 10,900'  
 TOC By: Calculation

Atoka Perfs: 13,561' - 13,918'

Cmt Ret @ 13,976'

Sqz Perf: 13,990 - 13,992

CIBP @ 14,715' w/ 35' cmt

CIBP @ 14,787'

Liner: 5-1/2" 23# P-110  
 Set: @ 14,950' w/ 425 sx cmt  
 TOL: @ 11,387'  
 Hole Size: 6-1/2"

Open Hole:  
 14, 950' - 14,997'

Top of 9-5/8" X 13-3/8" annular cement at 8,010' after squeeze. ✓

Sqz Perf: 13,050' - 13,052'

CIBP @ 13,449' w/ 2 sx cmt

PBTD: 8,100'  
 TD: 14,997'

Updated: 11/22/2013

By: Bob Hall

*7/ salt 987*  
*8/ salt 487*

*Del. 4414*  
*Cherry 5304*  
*Brushy 7259*  
*BS 8280*  
*WC 11579*  
*ST 13512*  
*AT 13683*  
*MR 14157*  
*Middle*  
*MR 14760*

Well: Lotos B Federal #1

Field: South Sand Dunes

Reservoir:

### Proposed Wellbore Diagram

**Location:**  
 GPS: 32.22993 -103.76708  
 1980' FSL & 1980' FWL  
 Unit Letter: K  
 Section No: 10  
 Twp: 24S Range: 31E  
 County: Eddy State: NM

**Elevations:**  
 GL: 3,457'  
 KB: 3,479'  
 DF:

**Well ID Info:**  
 Chevno: KW4553  
 API No: 30-015-26395  
 Spud Date: 6/23/1990  
 Drill End Date: 9/9/1990  
 Compl. Date: 9/23/1990  
 Last Prod:

00' To Surface  
 4P & Circulate  
 and Uving

@ 4416' - 4216'  
 Perf & Sqz w/ 120 sks of cmt  
 roc & TAG (C 5Hoe & Delaware)

Perf & Sqz @ 5400' - 5200' w/ 120 sks of cmt  
 woc & TAG

TAG CIBP @ 8135' w/ 25  
 sks of cement woc & TAG

Surface Csg: 20" 94#, 106.5#, 147#  
 Set: @ 671' w/ 1225 sx cmt  
 Hole Size: 26"  
 Circ: Yes TOC: Surface  
 TOC By: Circulation

Perf & Sqz w/ 120 sk of cmt  
 @ 771' to 571' woc & TAG (C 5Hoe)

Perf & Sqz @ 2600' - 2400' w/ 120  
 cmt, woc & TAG (Cherry Canyon)

TOC @ 8,100'  
 CIBP @ 8,135'  
 w/ 35' cmt

Brushy Canyon  
 Perfs: 8,185' - 8,210'

TOC @ 8,297'

Sqz Perf @ 8,327'  
 Sqz w/ 250 sx cmt.  
 Annular cmt @ 8,010'

CIBP @ 8,330'

Production Csg: 9-5/8" 43.5#, 47#, 5  
 Set: @ 11,750' w/ 350 sx cmt  
 Hole Size: 12-1/4"  
 Circ: No TOC: 10,900'  
 TOC By: Calculation

Sqz Perf: 13,050' - 13,052'

CIBP @ 13,449' w/ 2 sx cmt

Atoka Perfs: 13,561' - 13,918'

Cmt Ret @ 13,976'

Sqz Perf: 13,990 - 13,992

CIBP @ 14,715' w/ 35' cmt

CIBP @ 14,787'

PBTD: 8,100'  
 TD: 14,997'

Updated: 11/22/2013

Liner: 5-1/2" 23# P-110  
 Set: @ 14,950' w/ 425 sx cmt  
 TOL: @ 11,387'  
 Hole Size: 6-1/2"

Open Hole:  
 14,950' - 14,997'

By: Bob Hall

Chevron



Robert Hall  
Well P&A Engineer

Upstream Business Unit  
Chevron Environmental  
Management Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-312-7283  
robert.hall@chevron.com

November 14, 2013

Robert Holden  
Key Energy Services  
100 County Road 2000  
Andrews, TX 79714

RE: Authorization as Agent for Preparation and Submittal of Plugging Procedures in New Mexico and Texas  
Expires June 30, 1014

Dear Mr. Holden,

You are authorized to perform as an agent on behalf of Chevron for the submittal of proposed plugging procedures of subject wells for review and approval by the U.S Department of the Interior, Bureau of Land Management.

This authorization expires on June 30, 2014.

Sincerely,

A handwritten signature in cursive script that reads "Bob Hall".

Robert Hall

Chevron USA INC  
15 Smith Road  
Midland, TX 79705

RE: NMNM70895; Lotos B Federal 1  
1980' FSL & FWL, Section 10, T24S-R31E  
Eddy County, New Mexico

Plugging and Abandonment, Condition of Approval, changes to submitted procedure as follows:

Drill out cement and CIBP's ( cmt tops @ 8100' and 8297', CIBP's @ 8135' and 8330'). Clean hole to PBSD of 13469' and spot 25 sx Class H plug (Covers top of Strawn)

PUH to 11800' and spot plug from 11800'-11337' (covers 9-5/8" casing shoe, top of Wolfcamp, and top of liner). WOC and tag.

Set CIBP @ 8330' and cap with cmt from 8330'-8230' (covers squeeze perfs and top of Bone Spring). WOC tag.

Set CIBP @ 8135' and cap with 25 sx cmt.

Step 4. Okay

Step 5. Perf @ 4454' and squeeze cmt from 4454'- 4137' (covers top of Delaware, casing shoe, and base of salt). WOC tag.

Step 6. Omit

Perf @ 1037' and squeeze cmt from 1037-937' (top of salt). WOC tag.

Step 7. A 100' plug will be okay from 721'-621'. WOC tag.

Step 8. Okay

Ground level dry hole marker required (see attached).

If any questions, contact Jim Amos @ 575-234-5909.

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 90<sup>th</sup> day provide this office, prior to the 90<sup>th</sup> 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.

The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may 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 BOP must be installed and maintained as per API and manufacturer recommendations. 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 brine 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. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), 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. Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.

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 BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10<sup>th</sup> day, the BLM is to be contacted with justification to receive an extension for completing the cut off.**

The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement, unless otherwise noted in COA (requirements will be attached). 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 three 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 will be required. See attached reclamation procedure.

**Requirements for dry hole markers in Prairie Chicken Habitat**  
**Well Identification Markers**  
**Conditions of Approval (COA)**

The BLM Carlsbad Field Office (CFO) Conditions of Approval (COA) have required that ground level dry hole markers be placed on wells within the Lesser Prairie Chicken habitat area. Onshore Order 2.III.G.10 allows for surface caps to be installed at the base of the cellar of a minimum of 3 feet below the restored ground level. Therefore, these markers shall be set a minimum of 3 feet below the restored ground level. All markers shall be identified by GPS coordinates.

The dry hole markers will be to the following specifications. The operator will construct the markers as follows:

1. A steel plate 1/4 inch thick shall be placed on the wellbore, welded in place and with a weep hole.
2. Aluminum data plates may be bolted to the steel plate with minimum 1/4 inch bolts 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: Operator's 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)

Notification to NMOCD of this marker type will be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a below ground level dry hole marker was installed and GPS coordinates recorded as required in the COAs 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, redistribute 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:

Inspection & Enforcement

Jim Amos  
Supervisory Environmental Protection Specialist  
575-234-5909, 575-361-2648 (Cell)

Mike Burton  
Environmental Protection Specialist  
575-234-2226

Jeffery Robertson  
Natural Resource Specialist  
575-234-2230

Jennifer Van Curen  
Environmental Protection Specialist  
575-234-5905

Doug Hoag  
Civil Engineering Technician  
575-234-5979

Linda Denniston  
Environmental Protection Specialist  
575-234-5974

Solomon Hughes  
Natural Resource Specialist  
575-234-5951

Permitting

Cody Layton  
Natural Resource Specialist  
575-234-5959

Trishia Bad Bear  
Natural Resource Specialist  
575-393-3612

Todd Suter  
Surface Protection Specialist  
575-234-5987

Tanner Nygren  
Natural Resource Specialist  
575-234-5975

Amanda Lynch  
Natural Resource Specialist  
575-234-5922

Legion Brunley  
Environmental Protection Specialist  
575-234-5957

Realty, Compliance

Randy Pair  
Environmental Protection Specialist  
575-234-6240