

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**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.

OCD-Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 20105. Lease Serial No.
NMLC029435B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No
J L KEEL B 0229. API Well No.
30-015-0508210. Field and Pool, or Exploratory
GRAYBURG JACKSON; SR-Q-G-11. County or Parish, and State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other. INJECTION

2. Name of Operator

LINN OPERATING, INC.

Contact:

TERRY B CALLAHAN

E-Mail: tcallahan@linnenergy.com

3a. Address

600 TRAVIS STREET SUITE 5100
HOUSTON, TX 77002

3b. Phone No (include area code)

Ph: 281-840-4272

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 5 T17S R31E Mer NMP NWSW 1980FSL 660FWL
32.861680 N Lat, 103.897460 W Lon

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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.)

Propose Plug & Abandon Well

MIRU. NU BOP.

PU bit for 5-1/2" casing and drill out cement @ 2725' and composite plug @ 2735'.

Clean out to top of liner at 2841'

TOOH with bit and PU bit and scraper.

TIH to top of liner @2841' with bit/scraper to ensure CIBP can be set. TOOH with bit/scraper.

RIH & set CIBP @ 2826'

TIH with tbg open ended and tag CIBP to verify depth. Spot 25 sx of cmt on top of CIBP and WOC.

TIH and tag TOC and circ the hole with mud laden fluid.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RECEIVED

NOV 22 2011

NMOCD APPROVAL PROCEDURE
ATTACHED** Ground Level Dry Hole Marker*

14 I hereby certify that the foregoing is true and correct

Electronic Submission #116894 verified by the BLM Well Information System
For LINN OPERATING, INC., sent to the Carlsbad

Name (Printed/Typed) TERRY B CALLAHAN

Title REGULATORY SPECIALIST III

Signature (Electronic Submission)

Date 09/06/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

James R. Davis

Title

SEAS

Date

11-17-11

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

CFD

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

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Accepted for record

NMOCD

11/28/2011

Additional data for EC transaction #116894 that would not fit on the form

32: Additional remarks, continued

TIH and spot 25 sx cmt plug at 2012'. WOC and tag no lower than 1912'. (Covers base of salt)

120' plug

Perforate at 1402'.

TIH to 1402' and spot 35 sx of cmt and sqz. WOC and tag no lower than 1302'. (Covers top of salt)

TIH to 660' (50' below base of 5-1/2" csg show). Circulate cmt to surface. Shut in and squeeze.

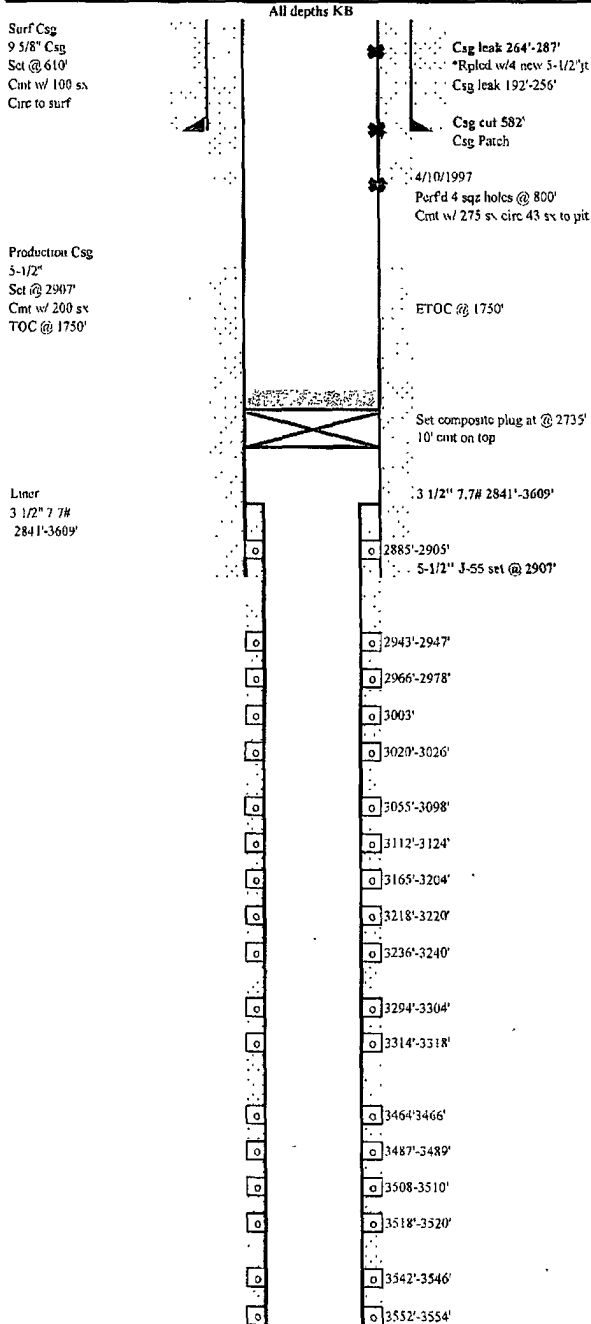
** Cut off Top off CS9S.*

Set the dry hole marker and clean up location.

Well Name: IL KEEL B 22
 Location: 05-17S-31E 1920 FSL 660 FWL
Eddy County, NM
 API # 20-015-05082
 Elevations: 3794' GROUND
 Depths (KB): KB
 PBTD. 3580'
 TD: 3609'

Current Wellbore Schematic

Date Prepared: 5/11/11
 Last Updated: G. Arnold
 Spud Date: 8/7/56
 RR Date:
 Spud Date to RR Date:
 Completion Start Date:
 Completion End Date: 11/19/56
 Completion Total Days: 104 Days
 Co-ordinates

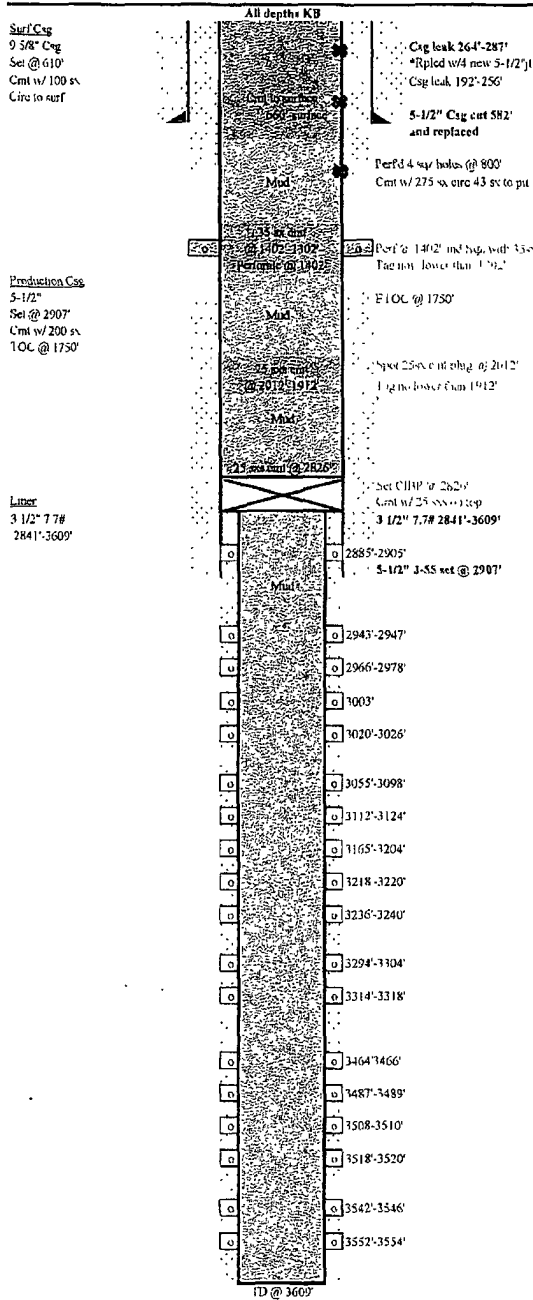


Surface Casing	
9 5/8" 32 3/4 set @ 610' w/ 100sxs	
TOC @ Surf	
Production Casing:	
5-1/2" I-55 set @ 2907' w/ 200sxs cmt	10/4/1956
TOC @ 1750' (CBL 4/3/97)	
Csg leak 264'-287', replaced 4 jnts	6/8/1995
Cut csg at 582' and pulled	4/8/1997
Csg patch in place	
Liber:	2/26/1966
3 1/2" 7 TH 2841'-3609'	
TOC @ 2773'	
Tubing	
4/1/2007	
Pulled tbg and sent in for inspection	Length (ft)
Tbg was stuck and cut @ 2136'	
NO REPORT OF KILL STRING LEFT IN HOLE	
Rods (Data from)	
Length (ft)	
(Rod Length for FG is not available)	
0.00	
Perforations:	
8/7/1956	
2907'-3360' OH	
3/1/1966	
3022'-3026'	
3165'-3170'	
3218'-3220', 3236'-3240'	
3294'-3296', 3302'-3304', 3314'-3318'	
3464'-3466', 3487'-3489', 3508'-3510', 3518'-3520', 3542'-3546', 3552'-3554'	
6/13/1995	
2885', 2887', 2896', 2900', 2905', 2943', 2947', 2966', 2968', 2972', 2976'	
2978', 3003', 3020', 3035', 3060', 3067', 3080', 3083', 3086', 3094', 3096', 3098', 3112', 3122', 3124',	
3171', 3174', 3178', 3183', 3186', 3189', 3193', 3200', 3204'	
Fill:	
6/8/1995	

Well Name IL KEEL H 22
Location 05-175-11E 1980 FSL 660 FWL
Eddy County NM
API # 30-015-05082
Elevations 3794' GROUND
KB
Depths (KB): PB TD 3580'
MD 3609'

Proposed P&A Wellbore Schematic

Date Prepared 5/11/2011 K. Murphy
Last Updated 9/6/11 D. Gonzalez
Spud Date: 8/7/56
RR Date: _____
Spud Date to RR Date: _____
Completion Start Date: _____
Completion End Date: 11/19/56
Completion Total Days: 104 Days
Co-ordinates: _____



Surface Casing			
9 5/8" 32.3# set @ 610' w/ 100 ss			
TOC @ Surf			
Production Casing			
5-1/2" J-SS set @ 2907' w/ 200 ss cmt			
TOC @ 1750' (CBL 4/3/97)			
Csg leak 264'-287', replaced 4 jts			
Cut csg at 582' and pulled			
Csg patch in place			
Liner			
3 1/2" 7 7/8 2841'-3609'			
TOC @ 2773'			
Tubing			
Pulled @ and sent in for inspection			
Tbg was stuck and cut @ 2136'			
NO REPORT OF KILL STRING LIFT IN HOLE			
Formation Tops (Geological symbols as indicated that the top of the salt is at 1352' and the base is at 1353')			
0-105'	Sand	2590-2907'	Anhydrite
105-155'	Red Beds & Sand	2907-3611'	Lime
155-455'	Anhydrite		
455-835'	Red Beds & Anhydrite		
835-1376'	Salt & Anhydrite		
1376-1575'	Salt		
1575-1830'	Red Rock & Anhydrite		
1830-1925'	Anhydrite		
1925-2130'	Lime & Anhydrite		
2130-2245'	Anhydrite & Red Rock		
2245-2510'	Anhydrite		
2510-2590'	Lime & Anhydrite		
Perforations:			
8/7/1956			
2907'-3360' OH			
3/1/1966			
3022'-3026'			
3165'-3170'			
3218'-3220', 3236'-3240'			
3294'-3296', 3302'-3304', 3314'-3318'			
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6/13/1995			
2885', 2887', 2896', 2900', 2903', 2943', 2947', 2966', 2968', 2972', 2976',			
2978', 3003', 3020', 3055', 3060', 3067', 3080', 3083', 3086', 3094', 3096', 3098', 3112', 3122', 3124',			
3171', 3174', 3178', 3183', 3186', 3189', 3193', 3200', 3204'			
Fill:			
6/8/1995			
465' of fill, topped 3125'			

JL Keel B 22
P&A Procedure

MIRU. NU BOP.

PU bit for 5-1/2" casing and drill out cement @ 2725' and composite plug @ 2735'.

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TIH to 1402' and spot 35 sx of cmt and sqz. WOC and tag no lower than 1302'. (Covers top of salt)

TIH to 660' (50' below base of 5-1/2" csg show). Circulate cmt to surface. Shut in and squeeze.

Set the dry hole marker and clean up location.

**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.

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 10th 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.

J. Amos 3/6/11

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.



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

Cody Layton
Natural Resource Specialist
575-234-5959

Terry Gregston
Environmental Protection Specialist
575-234-5958

Trishia Bad Bear
Natural Resource Specialist
575-393-3612

Bobby Ballard
Environmental Protection Specialist
575-234-2230

Todd Suter
Surface Protection Specialist
575-234-5987

Randy Rust
Environmental Protection Specialist
575-234-5943

Doug Hoag
Civil Engineering Technician
575-234-5979

Linda Denniston
Environmental Protection Specialist
575-234-5974

Jennifer Van Curen
Environmental Protection Specialist
575-234-5905

Justin Frye
Environmental Protection Specialist
575-234-5922