

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.*5. Lease Serial No.  
NMNM107392

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

COG OPERATING LLC

Contact: BRIAN MAIORINO

E-Mail: bmaiorino@concho.com

8. Well Name and No.  
CAP FEDERAL 01

9. API Well No.

30-025-36469-00-S3

3a. Address

ONE CONCHO CENTER 600 W ILLINOIS AVENUE  
MIDLAND, TX 79701-4287

3b. Phone No. (include area code)

Ph: 432-221-0467

10. Field and Pool, or Exploratory  
LUSK

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

Sec 6 T20S R32E NENW 660FNL 2100FWL

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			
<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 checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input 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 recomplete 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 respectfully request to test the Bone Spring and possibly the Delaware if the Bone Spring proves to be uneconomical.

All operations will be conducted using a closed loop system.

Please see attached procedures, current wellbore diagram, and proposed wellbore diagram.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #289034 verified by the BLM Well Information System****For COG OPERATING LLC, sent to the Hobbs****Committed to AFMSS for processing by LINDA JIMENEZ on 03/17/2015 (15LJ0792SE)**

Name (Printed/Typed) BRIAN MAIORINO

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 01/22/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By

Title

Date

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

**PETROLEUM ENGINEER****DEC 10 2015  
Kenneth Rennick**

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 \*\***



CAP Fed 1  
660' fml, 2100' fwl  
C-6-20S-32E  
Lea Co., NM  
30-025-36469

**Bone Spring and Delaware Recompletion Procedure**  
**22 Jan 15**

**Basic Data:**

13-3/8" @ 863' Circ. Cmt.  
9-5/8" @ 4374' Circ. Cmt.  
5-1/2" @ 12960', DV @ 10712', Circ. Cmt. Both Stages.

**Objective:** Test Bone Spring and possibly Delaware if Bone Spring is uneconomic.

**Procedure:**

1. MIRU WSU, hot oil/water and pull rods and pump.
2. Kill well and NU 3k WP hydraulic double ram BOP (2-7/8" and blind rams) with hydraulic closing unit and manual hand wheels to close rams. TOOH with 2-7/8" tubing.
3. Set CIBP on tubing at 9938' (top BS perf at 9988'). Tag plug then spot 30 sx Class H cement on top of plug (15.6 ppg, 1.18 cfps, approx. 155 deg F BHST). Tag plug. If tag deeper than 9740', visit with BLM Pet Tech to see if plug back is adequate or if another plug is required. (30 sx H should occupy 272' of casing volume with plug approx. 9940-9670')
4. RU pump truck, close blind rams and pressurize casing to 5000 psi. Record pressure for at least 30 minutes on a pressure chart for the BLM. Let's discuss if pressure falls more than 10% in 30 minutes.
5. Perf the Bone Spring at 7732' (6 shots), 7832' (6 shots), 7893' (12 shots), 8082' (10 shots), 8186' (10 shots) and frac with 303,750 lbs sand while limiting treating pressure to 5000 psi.
6. Test Bone Spring.
7. If Bone Spring non-commercial, set CIBP at 7682' (top perf at 7732'), tag plug then spot 25 sx Class H cement on top of plug (15.6 ppg, 1.18 cfps, approx. 135 deg F BHST). Tag plug. If tag deeper than 7500', visit with BLM Pet Tech to see if plug back is adequate or if another plug is required. If tag shallower than 7400', decision might be made to drill out part of plug to give enough rathole for rod pumping the Delaware. (25 sx H should occupy 226' of casing volume with plug approx. 7682-7456').
8. Perf the Delaware Sand 7298-7306' (16 shots), acidize 1000 gals 7-1/2% HCl, swab test and frac with 50,000 lbs sand while limiting treating pressure to 5000 psi if get good show.
9. Perf the Delaware Sand 6840-6844' (12 shots), acidize 500 gals 7-1/2% HCl, swab test and frac with 5,000 lbs sand while limiting treating pressure to 5000 psi if get good show.

→ SEE COA for Additional ~~Step~~ STEP (COA STEP #6)

Well: CAP Fed. Com. 1

Zero: 17' AGL

Location: 660' FNL, 2100' FNL  
C (Lot 3) - 6-205-32e  
Lea NM  
30-025-36469

KB: 3531'  
GL: 3514'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 7/8"	54.5	J55	ST	863'
8 5/8"	32	J55	BTC	4374'
5 1/2"	17	M95-110	LTC	12960'
2 1/8"	6.5	L80	EUE	

100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE  
100' IN FEET, FILLER, 5 SQUARE

17 1/2"

13 7/8" @ 863'  
475 HLC + 200" C (C185 5x circ)

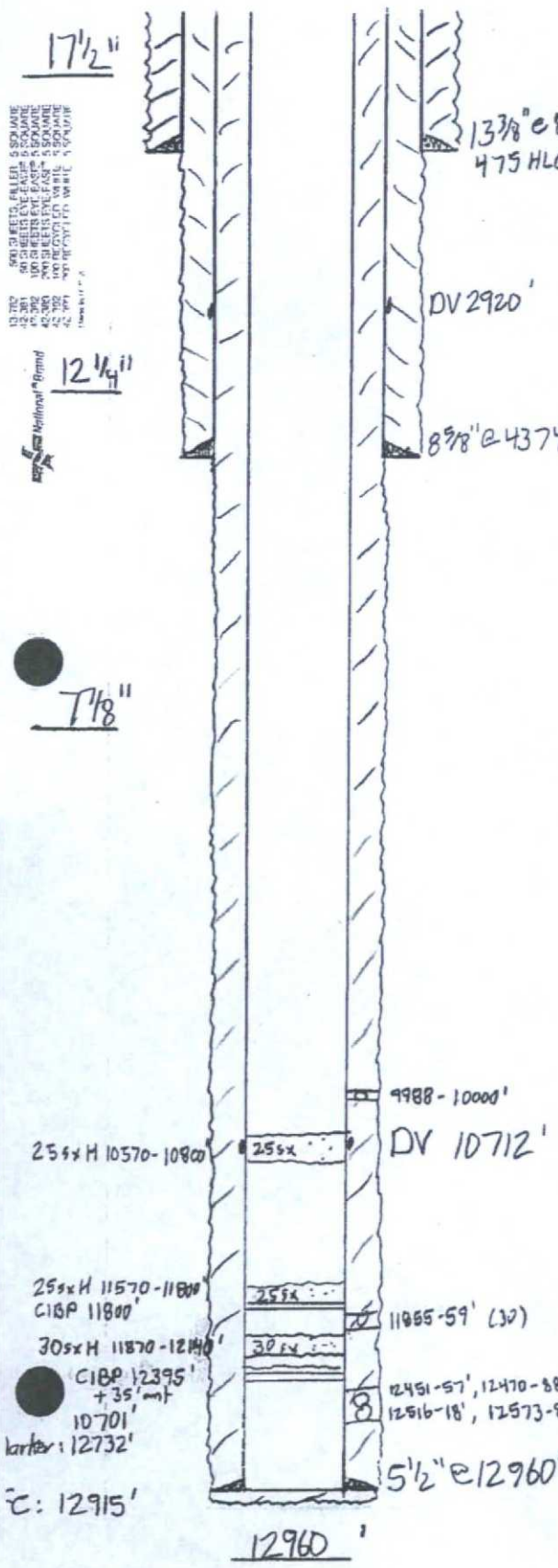
DV 2920'

12 1/4"

8 5/8" @ 4374'  
1st: 500 HLC + 200" C (C05 x circ)  
2nd: 1200 HLC + 100" C (C242 5x circ)

1 1/8"

BEFORE



BS Dolo

Atoka

Mrrr

1st: 500 Super H (Circ 108 5x)  
2nd: 1525 HLC + 200 Super H (Circ 58 5x)

- Sketch Not To Scale -

KBC Collins /

C: 12915'

12960'



Well: CAP Fed. Com. 1

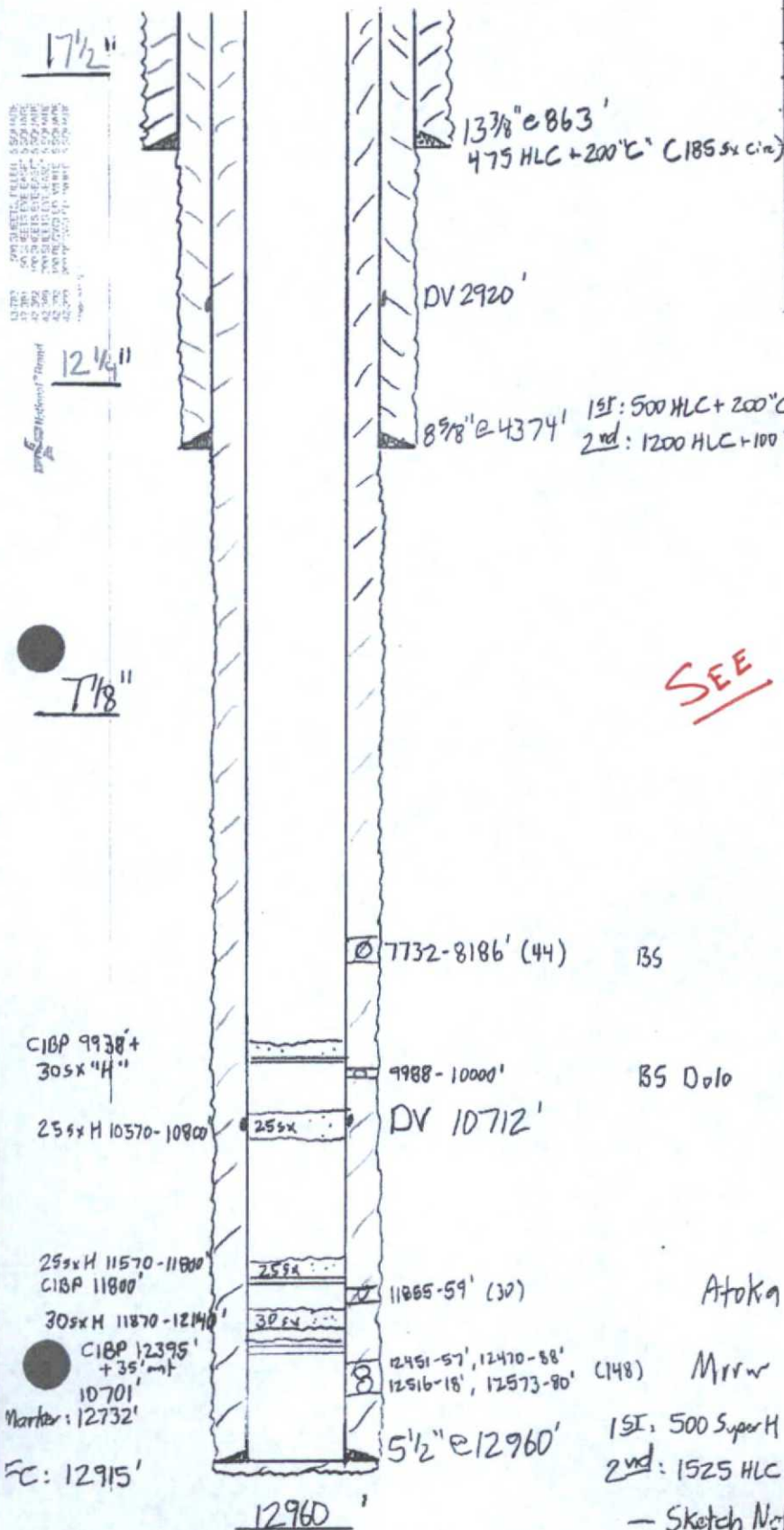
Zero: 17' AGL

Location: 660' FNL, 2100' FWL  
C C Lot 3) - 6-205-32e  
Lea NM  
30-025-36469

KB: 3531'  
GL: 3514'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 7/8"	54.5	J55	ST	863'
8 5/8"	32	J55	BTC	4374'
5 1/2"	17	M95-11D	LTC	12960'
2 1/8"	6.5	L80	EVE	



SEE COA

AFTER

1st: 500 Super H (Circ 1085x)  
2nd: 1525 HLC + 200 Super H (Circ 585x)  
- Sketch Not To Scale -  
KBC Collins /

**CAP Federal 01  
30-025-36469  
COG Operating LLC  
Sec 06, T20S, R32E  
Conditions of Approval**

**Notify BLM at 575-393-3612 (Lea County) a minimum of 24 hours prior to commencing work. Some procedures are to be witnessed, which for this case shall be the tagging of certain Cement Plugs. If there is no response, leave a voice mail with the API#, workover purpose and a call back phone number.**

**Work to be completed by within ninety (90) days from the approval date.**

**Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15. Exceptions to these restrictions may be granted by BLM's Mr. Johnny Chopp <jchopp@blm.gov or 575-234-2227>.**

1. A minimum of a **3000 (3M)** BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
2. Operator approved to set CIBP at 9938 feet and cap with proposed cement to isolate the perforations at 10,000 to 9988 feet (Lower Bone Springs, Operator Step 3). Tag is required and shall be witnessed by BLM.
3. Before Operator proposed Step 5, must conduct a Casing Integrity Test (CIT) before perforating and fracturing. Test should be run for 30 minutes. Submit results to BLM. The CIT is to be performed on the production casing to max treating pressure. Notify BLM if test fails. Document the pressure test on a one hour full rotation calibrated recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed tested. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.



4. Operator approved to complete perforation and fracture operations as proposed for the Bone Springs (Operator Step 5). If the Bone Springs proved to be non-commercial, Operator approved to complete the Delaware. **See the following (Approval Steps 5 to 7) for the Delaware recompletion.**
5. Operator approved to set CIBP at 7732 feet and cap with proposed cement to isolate the perforations at 8186 to 7732 feet (Upper Bone Springs, Operator Step 7). Tag is required and shall be witnessed by BLM.
6. **Before Operator proposed Step 8, Operator shall set a cement plug starting at 7682 feet to isolate top of Bone Springs formation. Length should be a minimum of 176 and be Class H cement. Tag is required.**
7. Operator approved to complete perforation and fracture operations as proposed for the Delaware (Operator Step 8 to 11).
8. Surface disturbance beyond the originally approved pad must have prior approval.
9. Before casing or a liner is added or replaced, prior BLM approval of the design is required. Use notice of intent Form 3160-5.
10. Closed loop system required.
11. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
12. Operator to have H2S monitoring equipment on location.
13. **Subsequent sundry required detailing work done, a C-102 form, and completion report for the new formations. Operator to include well bore schematic of current well condition when work is complete.**
14. **See attached for General Plugback Guidelines.**

**KGR 12102015**

**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 (LPC Habitat)**

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. Below Ground Level Cap (Lesser Prairie-Chicken Habitat): 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.** Upon the plugging and subsequent abandonment of wells that are located in lesser prairie-chicken habitat, the casings 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 covered with a metal plate at least ¼ inch thick and welded in place. A weep hole shall be left in the plate and/or casing.

NMOCD also requires 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 below ground cap was installed as required in the COA's from the BLM.

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 objectives.

9. Timing Limitation Stipulation/ Condition of Approval for Lesser Prairie-Chicken: From March 1<sup>st</sup> through June 15<sup>th</sup> annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted