

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, 2010

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

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. BLUE THUNDER 4 FEDERAL 2
2. Name of Operator COG OPERATING LLC		9. API Well No. 30-015-34780-00-X1
3a. Address 550 WEST TEXAS AVENUE SUITE 1300 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 575-748-6946 Fx: 575-748-6950	10. Field and Pool, or Exploratory WILDCAT
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 4 T19S R31E SWSW 450FSL 760FWL		11. County or Parish, and State EDDY 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 checked="" type="checkbox"/> New Construction	<input 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	

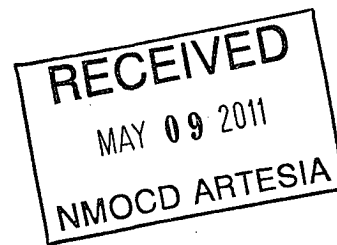
13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths 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.)

COG Operating LLC requests approval for a frac pond for the previously approved APD for the Blue Thunder 4 Federal #2 (30-015-34780).

The approved Form 3160-3 and site diagrams are attached.

Accepted for record - NMOCD

DD 5-20-11



14. Thereby certify that the foregoing is true and correct.	
Electronic Submission #105875 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 04/05/2011 (11KMS1308SE)	
Name (Printed/Typed) RAND FRENCH	Title REGULATORY COORDINATOR
Signature (Electronic Submission)	Date 04/05/2011

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

Approved By (BLM Approver Not Specified)	Title	Date 05/06/2011
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 Carlsbad

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 \*\***

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

F-06-08

Form 3160-3  
(April 2004)

0629

7013

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

NM/C 105217

1a. Type of work. ☒ DR LL ☐ REENTER

1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator  
COG Operating LLC

3a. Address 550 W. Texas Ave. Ste. 1300  
Midland, TX 79701

3b. Phone No. (include area code)  
(432) 683-7443

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface 450' FSL & 760' PWL  
At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office\*  
Approximately 50 miles Southwest of Hobbs, NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
Also to nearest drig. unit line, if any) 450'

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3557' Gr

16. No. of acres in lease  
320

19. Proposed Depth  
10,500'

22. Approximate date work will start\*  
05/15/2006

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

8. Lease Name and Well No.  
Blue Thunder "4" Federal #2

9. API Well No.

10. Field and Pool, or Exploratory  
Wildcat, Wolfcamp

11. Sec., T. R. M. or Bk. and Survey or Area  
Section 4, T-19-S, R-31-E

12. County or Parish  
Eddy County

13. State  
NM

17. Spacing Unit dedicated to this well  
40

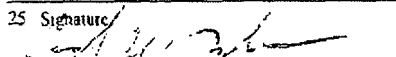
20. BLM/BIA Bond No. on file  
NMB 000125

23. Estimated duration  
45 days

24. Attachments **Capitan Controlled Water Basin**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SI PO shall be filed with the appropriate Forest Service Office)
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature   
Title  
Operations Engineer-New Mexico

Name (Printed-Typed)  
Erick Nelson

Date  
3-2-06

Approved by (Signature)  
/s/ Tony J. Herrell  
Title  
FIELD MANAGER

Name (Printed-Typed)  
/s/ Tony J. Herrell  
Office  
CARLSBAD FIELD OFFICE

Date  
APR 12 2006

Application approval 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.  
Conditions of approval, if any, are attached.

**APPROVAL FOR 1 YEAR**

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.

\*(Instructions on page 2)

DECLARED WATER BASIN  
CEMENT BEHIND THE 13 3/8"  
CASING MUST BE CIA

WITNESS

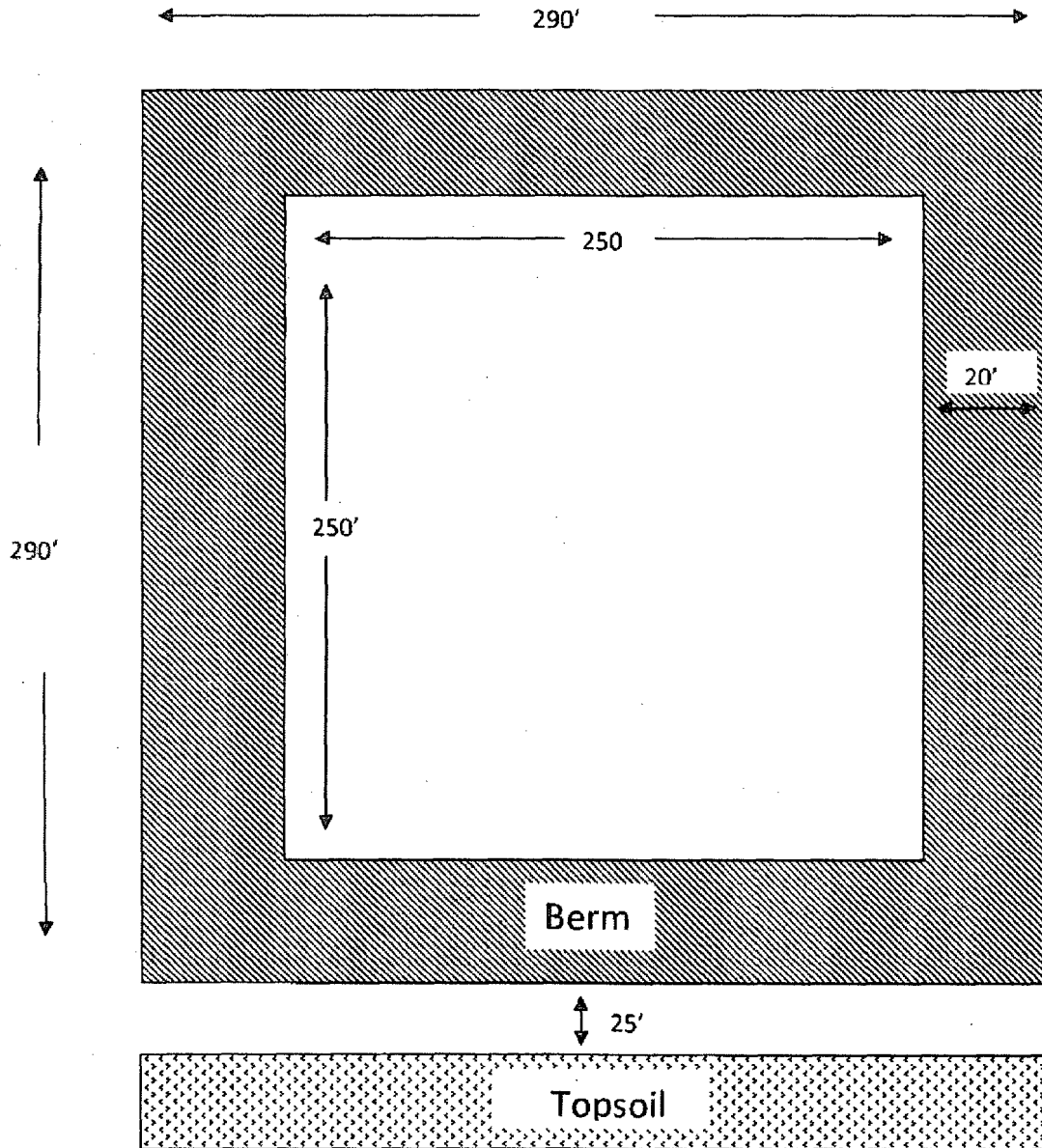
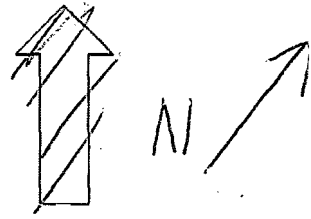
APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

see #12  
19/31/06 C

19/31 see 4  
#4 unit letter M

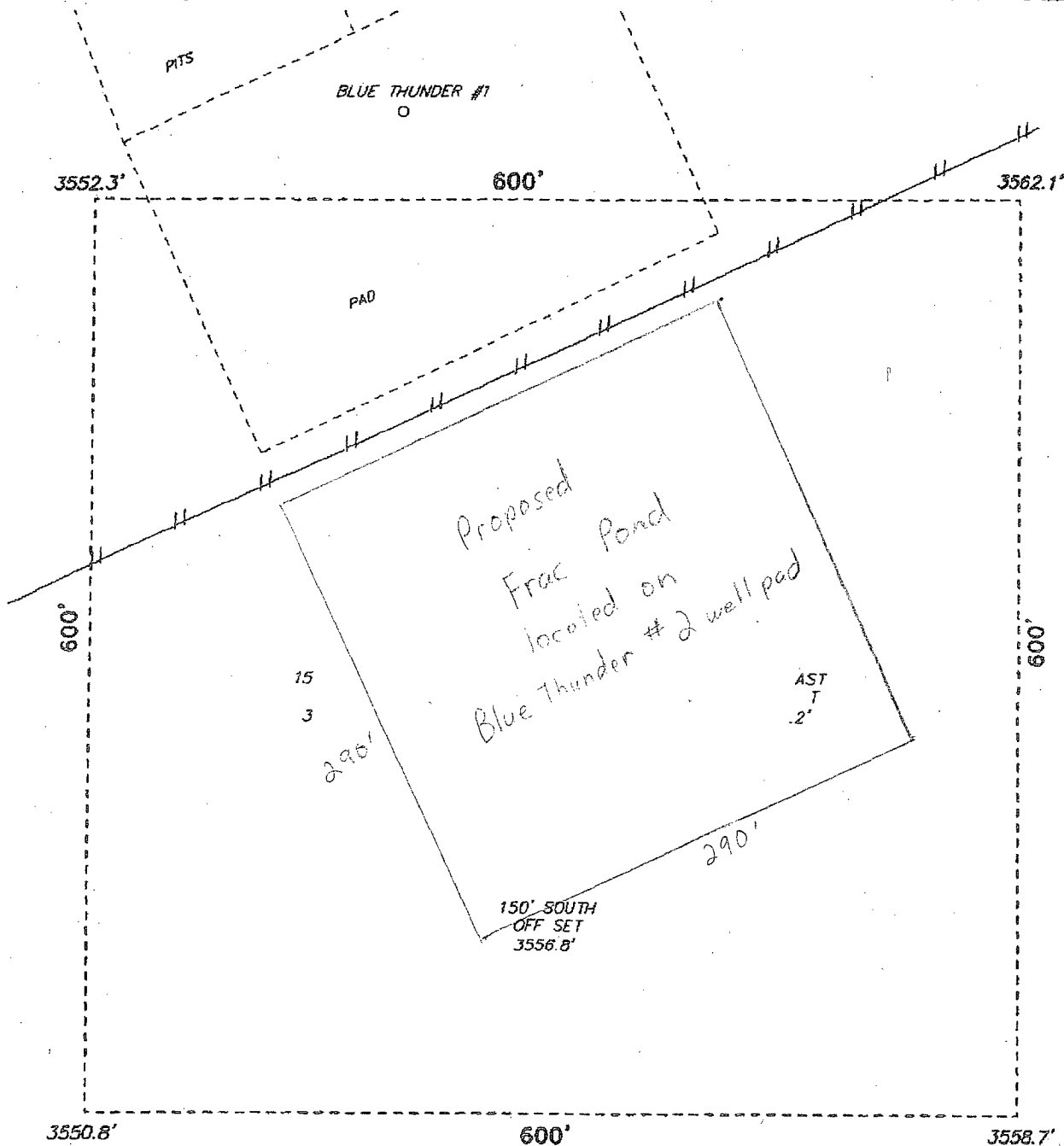
# Blue Thunder 4 Fed #2 Frac Pond

N



Pond depth: 12-14 feet

SECTION 4, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 31 AND US HWY 82, GO SOUTH ON HWY 31 FOR 8.2 MILES TO A LEASE ROAD; THENCE SOUTH ON LEASE ROAD FOR APPROX. 0.5 MILE; THENCE WEST FOR APPROX. 0.4 MILE; THENCE SOUTH TO THE BLUE THUNDER #1 AND PROPOSED WELL PAD.

100 0 100 200 FEET  
SCALE: 1" = 100'

**COG OPERATING L.L.C.**

REF: BLUE THUNDER "4" FED. No. 2 / Well Pad Topo

THE BLUE THUNDER "4" FED. No. 2 LOCATED 450' FROM THE SOUTH LINE AND 760' FROM THE WEST LINE OF SECTION 4, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 6245 Drawn By: K. GOAD

Date: 02-20-2006 Disk: KJG CD#4 - 6246A.DWG Survey Date: 02-15-2006 Sheet 1 of 1 Sheets

BLM LEASE NUMBER: NMNM-105217  
COMPANY NAME: **COG Operating LLC**  
ASSOCIATED WELL NO. & NAME: **Blue Thunder 4 Federal No 2 frac pond**

#### FRAC POND CONDITIONS OF APPROVAL

A copy of the APD, Right-of-Way Request, or Sundry Notice and attachments, including stipulations, survey plat and diagram, will be on location during construction. BLM personnel may request to see a copy of your permit during construction to ensure compliance with all conditions of approval.

Holder agrees to comply with the following conditions of approval to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this permit.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated.

3. Required Standard Conditions of Approval:

- Contact the Supervisory Environmental Protection Specialist, Jim Amos, at 575-234-5909 at least 24 hours prior to starting construction.
- The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer.
- If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly.
- Confine all construction and maintenance activity to the authorized area.
- Temporary pipelines flowing from the frac pond to the target well will be laid along existing roadways unless an exception has been granted by the authorized officer.
- Mineral materials extracted during construction of the frac pond will be stored on location and/or used for constructing the frac pond.
- The frac pond will be lined.

- The operator shall stockpile topsoil approximately 25 feet outside the bermed perimeter of the pond in a low profile manner, reasonably protected from wind and water erosion
- Topsoil shall not be used for constructing the frac pond. The topsoil will be used for final reclamation purposes only.
- The frac pond shall be fenced on all sides.
- Frac pond boundary fences will be marked by using highly visible and/or reflective markers
- Inner walls of the frac pond will have a minimum of a 3:1 slope ratio in order to minimize the entrapment of fauna
- Install earthen erosion-control structures as are suitable for the specific terrain and soil conditions.
- The plastic lining will be removed prior to final abandonment
- Reclamation efforts will commence immediately after the frac pond is no longer needed for the purpose of completing wells.
- Within 3 months of completion of frac operations on associated wells, all earthwork and final reclamation must be completed. This includes reclaiming and/or removal of:

Any roads approved for use with the pond

Surface water lines

Tanks, pumps, fencing etc.

- Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

#### Requirements for Operations and Final Reclamation:

4. If, during any phase of the construction, operation, maintenance, or termination of the frac pond, any pollutant should be released from the contaminated frac pond, the control and total removal, disposal, and cleaning up of such pollutant, wherever found, shall be the responsibility of holder, regardless of fault.

5. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The

holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

6. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

7. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

8. After all disturbed areas have been satisfactorily contoured and prepared for seeding the location needs to be revegetated with the seed mixture provided. Seeding may need to be repeated until revegetation is successful. Operators shall contact Jim Amos, Supervisor, Environmental Protection – (575)234-5909, **prior** to beginning surface reclamation operations.

9. Seeding is required: Use the following seed mix.

- |   |  |
|---|--|
| <input type="checkbox"/> seed mixture 1         | <input type="checkbox"/> seed mixture 3      |
| <input type="checkbox"/> seed mixture 2         | <input type="checkbox"/> seed mixture 4      |
| <input checked="" type="checkbox"/> LPC mixture | <input type="checkbox"/> Aplomado Falcon mix |

10. The topsoil to be stripped is approximately 6 inches in depth.

**11. Special Stipulations:**

The reserve pit area located to the south of the existing Blue Thunder 4 Federal #2 well pad shall be reclaimed during reclamation of the frac pond.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical

exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted.

12. Upon failure of holder to control, dispose of, or clean up such discharge, or to repair all damages resulting there-from, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

EA File #: EA-11-337