

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

MAY 14 2009

FORM APPROVED
OMB NO 1004-0137
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 page 2

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator

EOG Resources Inc.

3a Address

P.O. Box 2267 Midland, Texas 79702

3b. Phone No. (include area code)

432-686-3689

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

2000' FSL & 200' FEL, U/L I,
Sec 36, T22S, R30E

5 Lease Serial No

NM 02953-C

6 If Indian, Allottee or Tribe Name

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

8 Well Name and No

James Ranch Unit 113H

9 API Well No

30-015-37046

10. Field and Pool, or Exploratory Area

Southeast Quahada Ridge -
Delaware

11 County or Parish, State

Eddy NM

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

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other |
| <input checked="" 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 final site is ready for final inspection.)

EOG Resources requests to change the surface and intermediate casing strings from 13-3/8", 48#, H-40, ST&C and 9-5/8", 40#, J-55 LT&C to 11-3/4", 42#, H-40, ST&C and 8-5/8", 32#, J-55 LT&C.

The primary cementing of the production casing will employ the use of a stage tool set at approximately 5500'.

Please refer to the attached pages for additional casing and cementing detail.

Anticipated spud date is 5/3/09.

ENTERED IN
AFMSS

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Stan Wagner

Title Regulatory Analyst

Signature

Date 4/27/09

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Ryan S. Hall

Petroleum Engineer

Date APR 28 2009

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 CFO

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

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Permit Information:

Well Name: James Ranch Unit #113H

Revised 4/21/09

Location:

SL: 2000' FSL & 200' FEL, Section 36, T-22-S, R-30-E, Eddy Co., N.M.

BHL: 2150' FSL & 330' FEL, Section 31, T-22-S, R-31-E, Eddy Co., N.M.

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	650'	14-3/4"	11-3/4"	40# 42	H-40	Surface
Intermediate	3,900'	11"	8-5/8"	32#	J-55	Surface
Production	12,172'	7-7/8"	5 1/2"	17#	N-80	Surface

Casing Design:

Casing	Burst	Collapse	Tension
Surface	1.65	3.68	4.07
Intermediate	1.54	1.47	3.44
Production	1.29	1.71	2.44

Cement Program:

Depth	No. Sacks	Slurries:
650'	150	Lead: 35:65 Poz: C + 4% Bentonite + 0.005 gps FP-6L + 0.005 pps Static Free + 5 pps LCM-1 + 5% NaCl + 5% MPA-5 + 0.8% SMS, 12.7 ppg, 2.02 cu ft/ sk
	200	Premium Plus C + 0.005 pps Static Free + 1% CaCl ₂ + 0.125 pps CelloFlake + 0.005 gps FP-6L, 14.8 ppg, 1.34 cu ft/ sk
3,900'	740	Lead: 60:40 Poz: C + 0.005 pps Static Free + 5% NaCl + 0.125 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 1% SMS, 13 ppg, 1.57 cu ft/ sk
	200	Tail: Premium Plus C + 0.005 pps Static Free + 1% CaCl ₂ + 0.125 pps CelloFlake + 0.005 gps FP-6L, 14.8 ppg, 1.34 cu ft/ sk
12,172'* Stage 1	385	Lead: 50:50 Poz: C + 0.005 pps Static Free + 5% NaCl + 0.125 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8 ppg, 2.29 cu ft/ sk
	1,000	Tail: 50:50 Poz: H + 2% Bentonite + 0.005 gps FP-6L + 0.005 pps Static Free + 5% NaCl + 0.1% R-3 + 0.2% CD-32 + 0.3% FL-52A, 14.2 ppg, 1.30 cu ft/ sk
Stage 2	515	Lead: 50:50 Poz: C + 0.005 pps Static Free + 5% NaCl + 0.125 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8 ppg, 2.29 cu ft/ sk
	100	Tail: Premium Plus C + 0.005 pps Static Free + 0.005 gps FP-6L, 14.8 ppg, 1.33 cu ft/ sk

*Stage tool at approximately 5,500'.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 650'	Fresh - Gel	8.6-8.8	28-34	N/c
650' – 3,900'	Brine	10.0-10.2	28-34	N/c
3,900' – 6,000'	Fresh Water	8.4 – 8.6	28-34	N/c
6,000' – 7,100'	Cut Brine	8.8-9.6	28-34	N/c
7,100' – 7,717'	Cut Brine	8.8-9.6	28-34	10-15
7,030' – 12,172'	Cut Brine/ Polymer (Lateral)	8.8-9.6	40-45	10-25

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

April 28, 2009

OPERATOR'S NAME:	EOG Resources Inc.
LEASE NO.:	NM 02953C
WELL NAME & NO.:	James Ranch Unit 113H
SURFACE HOLE FOOTAGE:	2000' FSL & 200' FEL Section 36, T22S, R30E
BOTTOM HOLE FOOTAGE:	2150' FSL & 300' FEL Section 31, T22S, R31E
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
4. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturer of the logging tools recommended speed. (R-111-P area only)

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P potash and WIPP requirements.

High cave/karst

Possible water flows in the Salado Group and Castile formation.

Possible lost circulation and water flows in the Delaware.

1. The 11-3/4 inch surface casing shall be set **at approximately 650 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and cave/karst concerns.

Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

a. First stage to DV tool, cement shall:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

- ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi**.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 intermediate casing shoe shall be **5000 (5M) psi.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WIPP Requirements

The proposed well is located within 330' of the WIPP Land Withdrawal Area boundary. As a result, EOG Resources, Inc. is required to submit daily logs and deviation survey information to the Department of Energy per requirements of the Joint Powers Agreement. Information from this well will be included in the Quarterly Drilling Report.

EOG Resources, Inc. must ensure that the well pad or other support structures do not encroach on the WIPP Land Withdrawal Area and that no excavation, stockpiling, storage of equipment, or storage of chemicals takes place on the Land Withdrawal Area unless there is an approved Land Use Request from the WIPP Land Management Coordinator.

EOG Resources, Inc. must not drill across the west line of Section 31, from west to east, within 6000 feet of the ground surface.

Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

EOG Resources, Inc. can email the required information to Ms. Susan McCauslin at susan.mccauslin@wipp.ws or fax to her attention at 575-234-6003.

RGH 042809