

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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 <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM02965A
2. Name of Operator EOG RESOURCES, INC.		6. If Indian, Allottee or Tribe Name
Contact: STAN WAGNER E-Mail: stan_wagner@eogresources.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address ATTN: STAN WAGNER P.O. BOX 2267 MIDLAND, TX 79702	3b. Phone No. (include area code) Ph: 432-686-3689	8. Well Name and No. THOR 21 FED COM 707H ✓
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 21 T26S R33E Mer NMP SWSE 370FSL 1639FEL ✓		9. API Well No. 30-025-43684
		10. Field and Pool or Exploratory Area WC-025 S263327G UPPER WC
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE 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"/> Hydraulic Fracturing	<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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

EOG Resources requests authority to sidetrack this well as follows:

Present well Details:

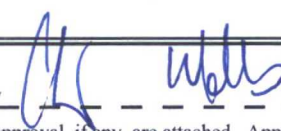
7-5/8" intermediate casing set at 11573'/11543' TVD. 6-3/4" horizontal hole was drilled to 17063'MD/12143'TVD. 5-1/2" production casing was stuck at 14164' and has been severed at 12081' with a jet cutter. A CIBP was set in the 7-5/8" intermediate casing at 11409'.

Go Forward Plan:

1. Drill out CIBP at 11409' and clean out to top of casing stub at 12081'.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #378521 verified by the BLM Well Information System For EOG RESOURCES, INC., sent to the Hobbs Committed to AFMSS for processing by MUSTAFA HAQUE on 06/12/2017 ()	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/09/2017

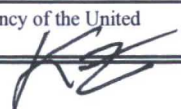
THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By 	Title Eng	Date 6/12/17
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, 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)

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



Additional data for EC transaction #378521 that would not fit on the form

32. Additional remarks, continued

2. TIH w/ Schlumberger Trackmaster Plus Expandable Anchor (hydraulically set) whipstock assembly with 350' of 2-7/8" tailpipe on 4-1/2" drill pipe.
3. Position the whipstock assembly at 11665' and orient to 337 degree azimuth with a gyro. Set the expandable anchor and prepare to cement.
4. Cement anchor in place with 150 sacks of 15.6 ppg cement. Top of cement is calculated to be 200' inside 7-5/8" intermediate casing.
5. Sidetrack off of whipstock.
6. Re-drill lateral (see attached directional plan).



eog resources

CEMENTED OH WHIPSTOCK PROCEDURE

Thor 21 Fed Com #707H

6/9/2017

PRESENT WELL CONFIGURATION: 10-3/4" surface casing set at 1012' and cemented to surface. 7 5/8" intermediate casing set at 11,573' and cemented to surface; 6 3/4" open hole from 11,573'-17,063'; 5-1/2" casing fish from 12,081'-14,164'; 7-5/8" CIBP set at 11,409' and 10.0 ppg inside the 7-5/8" intermediate casing.

1. Drill up CIBP at 11,409' and clean out to TOF at 12,081'.
 - a. 6-3/4" mill toothed bit.
 - b. 4 1/2" drill pipe.
 - c. Condition mud and hole for whipstock and cementing
2. POOH to pick up 2 7/8" tubing tail pipe and cemented whipstock assembly.
 - a. TIH with open hole whipstock assembly with 2 7/8" tubing tail pipe (~350' with slotted tubing on bottom).
 1. Optimum MUT for 2 7/8" 6.5# EUE tubing is 2250 ft-lb
 - b. Orient whipstock to 337° azimuth with gyro and set bottom of whipstock 30' above KOP
 1. (Bottom at 11,693', Top at 11,665'). Reference attached OH whipstock setting procedure from Schlumberger.
3. Pump Balanced Plug (12,040-11,375') job procedure (perform at maximum annular velocity).

*See attached balanced cement plug diagram

 - a. Pump 30 bbls of 10.3 ppg OBM spacer.
 - b. Mix and pump 150 sacks of cement (15.6 ppg, 1.18 cu/ft/sk yield, 31.52 bbls of slurry).
 - c. Pump 17.3 bbls of 10.3 ppg OBM spacer.
 - d. Displace w/ 141 bbl active mud (includes under displacement by 1.5 bbl)
4. Follow Schlumberger procedure for pulling off of whipstock and circulating to clean drill pipe.
 - a. Pull 1000' above whipstock at 30 fpm, circulate two B/U
5. TOH and L/D Schlumberger tools and pick up curve assembly. Wait a reasonable amount of time before running in hole to allow cement to set up.
6. TIH and tag cement, wash and ream cement to top of whipstock. Orient directional tools and kick off of whipstock. Note: if on magnetic tool face, the whipstock will cause interference. Re-drill lateral hole.



Lea County, NM (NAD 27 NME)

Thor 21 Fed Com #707H

H&P 647

Plan #2

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #707H

Ground Level: 3260.0
KB = 25 @ 3285.0usft (H&P 647)
Northing: 372781.00 Easting: 735478.00 Latitude: 32° 1' 21.407 N Longitude: 103° 34' 24.734 W

SECTION DETAILS

Sec	MD	Inc	AJL	TVD	+N-S	+E-W	Clog	TFace	Vsect	Target	Annotation
1	11723.0	4.60	337.21	11694.3	-299.7	271.9	0.00	0.00	-287.7		
2	11797.7	6.00	270.00	11769.8	-296.9	266.8	0.00	-112.27	-288.2		
3	12072.9	38.98	321.08	12022.9	-250.9	186.6	12.13	98.06	-222.1		
4	12614.3	91.66	4.60	12286.0	216.2	107.7	12.13	48.84	215.6		
6	13891.6	91.66	4.60	12221.0	1488.0	207.9	0.00	0.00	1486.0		
6	14136.9	91.98	389.60	12213.4	1733.0	216.7	2.00	-87.29	1740.7		
7	15396.2	91.89	369.60	12172.0	2990.6	207.8	0.00	0.00	2996.8		TGT#2(THOR 21 FED COM #707H)
8	15416.3	91.88	369.60	12171.6	3005.7	207.7	2.00	179.32	3011.9		
9	16995.2	91.58	369.60	12126.0	4880.0	196.7	0.00	0.00	4884.2		PBHL(THOR 21 FED COM #707H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
TGT#2(THOR 21 FED COM #707H)	12172.0	2990.6	207.8	375771.80	735685.80
PBHL(THOR 21 FED COM #707H)	12126.0	4880.0	196.0	377481.00	735674.00
FTPT(THOR 21 FED COM #707H)	12263.0	-39.0	279.0	372742.00	735757.00
TGT#1(THOR 21 FED COM #707H)	12221.0	1488.0	207.9	374289.00	735685.90

