Form 3160-5
(August 2007)

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.

HOBBS OCD

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

SEP 22 2014

RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM0559539
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No. JAMES FEDERAL 22H
2. Name of Operator CIMAREX ENERGY COMPANY OF CO Contact: TERRI STATHEM E-Mail: tstathem@cimarex.com	9. API Well No. 30-025-41363-00-X1
3a. Address 600 NORTH MARIENFELD STREET, SUITE 600 MIDLAND, TX 79701 3b. Phone No. (include area code) Ph: 432-620-1936	10. Field and Pool, or Exploratory SAND DUNES
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 29 T23S R32E NENE 185FNL 660FEL 32.165595 N Lat, 103.412496 W Lon	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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.)

Due to lost circulation encountered starting at 7250' we request to change the casing design as follows:
Approved:
5.5" 20# L-80 LTC/BTC
Proposed:
7" 26# L-80 at approximately 9650' MD / 9390' TVD (approximately 80 degrees inclination)
Stage tool and ACP at approximately 7000'
Stage 1 lead cement: 120 sx tuned light lead at 10.8 ppg 2.78 yield
Stage 1 tail cement: 260 sx Versacem H at 14.5 ppg 1.22 yield
Stage 2 cement: 325 sx tuned light lead at 10.8 ppg, 2.52 yield
Centralizers every other joint in curve, every 4 joints in vertical up to intermediate casing shoe

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

Electronic Submission #264377 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs
Committed to AFMSS for processing by CHRISTOPHER WALLS on 09/18/2014 (14CRW0213SE)

Name *(Printed/Typed)* TERRI STATHEM — Title COORDINATOR REGULATORY COMPLIA

Signature (Electronic Submission) — Date 09/18/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHRISTOPHER WALLS — Title PETROLEUM ENGINEER — Date 09/18/2014

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 Hobbs

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 ****

SEP 22 2014

Additional data for EC transaction #264377 that would not fit on the form

32. Additional remarks, continued

Drill 6" or 6.125" lateral
4.5" 11.6# L-80 Liner with liner hanger and packer or expandable type hanger - TOL: between 8650-8750'
Cement: 330 sx VersacemH at 14.5 ppg, 1.22 yield
TOC planned at 7" shoe
No centralizers

Verbally approved by C. Walls 9-16-14.

Conditions of Approval
James Federal 22
Cimarex Energy Company of Co.

1. The minimum required fill of cement behind the 7 inch production casing is:

Operator has proposed DV/ACP tool at a depth of 7000'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

   a. First stage to DV tool:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

   b. Second stage above DV tool:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

2. The minimum required fill of cement behind the **4-1/2** inch production liner is:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

In a Lesser Prairie-Chicken section.

13 3/8 surface csg in a 17 1/2 inch hole. **Design Factors** SURFACE

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	48.00	H 40	ST&C	5.16	1.36	0.7	1,300	62,400
w/8.4#/g mud, 30min Sfc Csg Test psig: 644			Tail Cmt	does not	circ to sfc.	Totals:	1,300	62,400

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	960	1610	957	68	8.40	1433	2M	1.56

9 5/8 casing inside the 13 3/8 casing. **Design Factors** INTERMEDIATE

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	40.00	J 55	LT&C	2.72	1.31	0.96	4,785	191,400
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 677						Totals:	4,785	191,400

The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1300 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1350	2381	1600	49	10.00	2032	3M	0.81

Gas Gradient used for collapse SF.

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.83, b, c, d All > 0.70, OK.

7 casing inside the 9 5/8 **Design Factors** PRODUCTION

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	26.00	L 80	LT&C	2.09	1.4	1.61	8,835	229,710
"B"	26.00	L 80	LT&C	4.04	1.19	1.61	815	21,190
w/8.4#/g mud, 30min Sfc Csg Test psig: 971						Totals:	9,650	250,900

B Segment Design Factors would be: 35.41 1.32 if it were a vertical wellbore.

No Pilot Hole Planned

MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
9650	9390	9390	8835	90	10	9755

The cement volume(s) are intended to achieve a top of 4285 ft from surface or a 500 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1503	look ↘	0	820		8.40	2424	3M	0.55

Tail cement yield above 1.35.

Tail cmt proposed for the csg below could overlap the previous csg shoe.

4 1/2 Liner w/top @ 8750 **Design Factors** LINER

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	11.60	L 80	LT&C	2.44	1.28	1.73	1,005	11,658
"B"	11.60	L 80	LT&C	4.48	1.41	1.73	4,076	47,282
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,344						Totals:	5,081	58,940

The cement volume(s) are intended to achieve a top of 8750 ft from surface or a 900 overlap. 200'

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
6	0.0859	330	403	363	11	9.20			0.50