

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

000 Artesia

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.
NMNM06764

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

8. Well Name and No.
HACKBERRY 23 FEDERAL COM 3H

2. Name of Operator Contact: HOPE KNAULS
CIMAREX ENERGY COMPANY OF CO-Mail: hknaults@cimarex.com

9. API Well No.
30-015-42078-00-X1

3a. Address
600 NORTH MARIENFELD STREET SUITE 600
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 918.295.1799

10. Field and Pool, or Exploratory
WILDCAT

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

Sec 24 T19S R30E NWSW 2130FSL 180FWL
32.383997 N Lat, 103.560064 W Lon

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 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 APD
	<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 recomple 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 recomple 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.)

CIMAREX ENERGY RESPECTFULLY REQUEST APPROVAL TO CHANGE THE 13-3/8" CEMENT. PLEASE SEE ATTACHMENT WITH REVISIONS

Engineer was given verbal approval for 2 stage job from Chis Walls on 11/10/14 @ 8:00 A.M.

NM OIL CONSERVATION
ARTESIA DISTRICT

Accepted for record
NMOCDC TCS

DEC 01 2014

RECEIVED

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

**Electronic Submission #278110 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad
Committed to AFMSS for processing by CHRISTOPHER WALLS on 11/21/2014 (15CRW0032SE)**

Name (Printed/Typed) HOPE KNAULS	Title REGULATORY TECHNICIAN
Signature (Electronic Submission)	Date 11/11/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>CHRISTOPHER WALLS</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>11/21/2014</u>
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.

Cimarex energy requests to change the cement design on the Hackberry 23 Federal Com 3H due to loss circulation while drilling the 17-1/2" hole section. Change in cement design will result in the addition of an ACP and DV tool and increase cement volumes on the "Intermediate #1", 13-3/8" casing string.

Current approved Sundry (approved 10/23/14).

Casing Depth From (ft)	Casing Setting Depth(ft) MD	Casing Setting Depth(ft) TVD	Open Hole Size (inches)	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	SI Surface Pressure & BHP (psig)	Mud Weight (ppg)	Collapse SF (1.125)	Burst SF (1.125)	Cumulative Air Weight (lbs)	Tension SF (1.8)
Surface														
0'	325'	325'	26	20	94	H-40	ST&C	New	146	8.4	3.66	10.5	30550	22.0
Intermediate 1 (Collapse is figured for a 1/3 internal evacuation equal to the proposed TVD of the next section)														
0'	1930'	1930'	17 1/2	13 3/8	54.5	J-55	ST&C	New	869	10	1.13	3.2	105185	4.9
Intermediate 2 (Collapse is figured for a 1/3 internal evacuation equal to the proposed TVD of the next section)														
0'	3600'	3600'	12 1/4	9 5/8	36	J-55	LT&C	New	1620	8.6	1.25	2.2	129600	4.4
Production														
0'	9108'	8580'	8 3/4	7	26	P-110	LT&C	New	1973.4	9	1.55	5.0	228126	3.0
Completion System														
8355'	19010'	8580'	6 1/8	4 1/2	11.60	P-110	BT&C	New	3861	9	1.89	2.8	5046	72.7
Casing Design Criteria and Casing Loading Assumptions:														
Surface, Production, and Casing System:														
Tension:	A 1.8 design factor without effects of buoyancy.													
Collapse:	A 1.125 design factor with full internal evacuation.													
Burst:	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.													
Intermediate 1 & 2 Casing:														
Tension:	A 1.8 design factor without effects of buoyancy.													
Collapse:	A 1.125 design factor with 1/3 internal evacuation equal to the proposed TVD of the next section.													
Burst:	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.													

Surface	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Tail	520	1.34	14.8	685	Class C + LCM
TOC:		0'	40% Excess	Centralizers per Onshore Order 2.III.B.1f	

Intermediate 1	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	860	1.88	12.9	1613	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
Tail	270	1.32	14.8	358	Class C + retarder + LCM
TOC:		0'	57% Excess		

Intermediate 2	Stage 1				
	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
	300	1.88	12.9	564	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
	230	1.32	14.8	304	Class C + retarder + LCM
TOC: 2000'		50% Excess		DV Tool/ ACP set between 2000' - 2100'	

	Stage 2				
	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
	350	1.88	12.9	658	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
	50	1.32	14.8	66	Class C + retarder + LCM
TOC: 0'		0% Excess			

Production	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	404	2.4	11.9	970	Fluid Loss + Dispersant + LCM + Retarder
Tail	198	1.24	14.5	246	
TOC: 2400'		25% Excess			

Completion System	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Tail	850	1.24	14.5	1054	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder
Cement volumes will be adjusted depending on hole size.					
TOC: 8355'		5% Excess			

Requested Changes to the "Intermediate #1", 13-3/8" cement as follows:

Stage 1

- Lead: 1220 sx Class C @ 13.7 ppg, 1.62 yield
- Tail: 320 sx Class C @ 15.0 ppg, 1.29 yield

ACP/DV Tool at 370' KBTVD, approximately 30' below the 20" surface casing shoe and approximately 20' above the loss zone.

Stage 2

- Lead: 350 sx Class C @ 13.7 ppg, 1.62 yield