Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
ARTESIA DISTRICT
OCD Artesia
JAN 13 2015
RECEIVED

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM120895

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
CABO WABO 24 FEDERAL 5H

2. Name of Operator
COG PRODUCTION LLC
Contact: MAYTE X REYES
E-Mail: mreyes1@concho.com

9. API Well No.
30-015-42482-00-X1

3a. Address
2208 W MAIN STREET
ARTESIA, NM 88210

3b. Phone No. (include area code)
Ph: 575-748-6945

10. Field and Pool, or Exploratory
WILLOW LAKE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 24 T25S R29E SWSW 190FSL 660FWL
32.108538 N Lat, 103.943932 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			
☒ 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 APD
	☐ 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.)

COG Production LLC, respectfully requests approval for the following changes to the original approved APD.

We request to drill the vertical/curve from intermediate at 3270? to End of Curve at 8133? MD / 7860? TVD with an 8-3/4? hole size instead of 7-7/8? as originally permitted.
In the lateral (8133? MD / 7860? TVD to 12,451? MD / 7860? TVD), we want to reduce hole size from 8-3/4? to 7-7/8? at 8133? MD to TD at 12,451? MD / 7860? TVD.
We want to modify our production casing cementing plan to utilize the Halliburton Tune Light system and to adjust cementing volumes in the Lateral and Vertical Sections to optimize the hydrostatic loading of the cement column to avoid losses in the Delaware Sands and Lower Avalon Shale and circulate cement at least to a minimum of 500? inside the 9-5/8? casing (minimum TOC ? 2770?), however, volumes are designed to circulate to 1500? (1770? of tie-in above ICP casing shoe at

Well is already completed.

Accepted for record
NMOCD
1/14/15

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

Electronic Submission #275638 verified by the BLM Well Information System
For COG PRODUCTION LLC, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER MASON on 01/05/2015 (15JAM0166SE)

Name *(Printed/Typed)* MAYTE X REYES — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 11/03/2014

ACCEPTED FOR RECORD
JAN 9 2015
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date

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

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 ****

Additional data for EC transaction #275638 that would not fit on the form

32. Additional remarks, continued

3270?). As before, this will be a single stage cementing program.
Tail Cementing volumes (VersaCem H @ 14.4 ppg) proposed below are intended to place the tail cement through the lateral section of the well (12,451? MD / 7860? TVD) and up into the curve to approximately 7400? MD / ~7400? TVD.
Lead Cementing volumes (Halliburton Tune Light @ 10.4 ppg) proposed below are intended to place the Lead Cement from 7400? to a depth of 1500? which would be bring the top of the cement approximately 1770? above the 9-5/8? intermediate casing shoe at 3270? (500? minimum tie back required).
Fluid caliper(s) will be ran at TD to verify cementing volumes for the lateral and curve/vertical sections of this well.
Additional cement volumes may be added if wellbore losses or seepage is detected.

Proposed Cementing Program
Lead : 560 sx of Halliburton Tune Light at 10.4 ppg ? / 19.06 gal/sx / 3.32 cf/sk)
(Note: Density/Yield of Tune Light Cement at Downhole Conditions)
Tail: 870 sx of Versacem H + 0.4% GasStop + 0.3% CFR-3 + 1% Salt + 1% HR-601
(14.4 ppg ? 5.7 gal/sk 1.24 cf/sk)
Summary of Volume Calculations by Section
Lead Cement
Lead: 1500? ? 3270?(inside 9-5/8?Intermediate to 1500?) 5% Excess
Lead : 151 sx of Halliburton Tune Light (10.4 ppg @ Bottom Hole Conditions ? / 19.07 gal/sk / 3.32 cf/sk)
Lead: 3270? ? 7400? (ICP Shoe to KOP ? 8-3/4? Bit) 30% Excess
Lead: 409 sx of Halliburton Tune Light (10.4 ppg ? / 19.07 gal/sk / 3.32 cf/sk)
Total Lead: 560 sx.
Tail Cement
Tail: 7400? (KOP) ? 8133? MD (End of Curve) ? 8-3/4? Bit 15% Excess
Tail: 172 sx of Versacem H + 0.4% GasStop + 0.3% CFR-3 + 1% Salt + 1% HR-601 (14.4 ppg ? 5.7 gal/sk 1.24 cf/sk)
Tail: 8133? MD (End of Curve) to 12,451? MD/7860? TVD
(Change Bit Size to 7-7/8?) 15% Excess
Tail: 694 sx of Versacem H + 0.4% GasStop + 0.3% CFR-3 + 1% Salt + 1% HR-601 (14.4 ppg ? 5.7 gal/sk 1.24 cf/sk)
Total Tail: 866 sx. >>> 870 sx.
Note: Excess hole volume estimates are based on recent fluid caliper survey results taken at the End of Lateral and at the top of the curve. A fluid caliper will be run on this well and adjustments to these cited volumes may be requested.