Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.

Carlsbad Field Office
OCD Hobbs

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM077090

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.
MORTARBOARD FEDERAL COM 13H

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

9. API Well No.
30-025-44725

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

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

10. Field and Pool or Exploratory Area
RED HILLS; BONE SPRING, N

HOBBS OCD
AUG 06 2018
RECEIVED

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 1 T24S R34E NENW 210FNL 1980FWL

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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ 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 must 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 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.

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

A second intermediate casing string was run in this well following the loss of a fish in the hole while drilling the planned 8-3/4 production hole. It is proposed to change the production casing string to a tapered 5-1/2? x 5? string. Details are as follows:

13-3/8? surface casing was set and cement circulated at 854?.
9-5/8? intermediate casing was set and cement circulated at 5,358?.
7-5/8? intermediate casing was set and cement circulated at 11,471?.
The production interval will be drilled with 6-3/4? bits.

- All previous COAs still apply

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

Electronic Submission #428195 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by MUSTAFA HAQUE on 07/23/2018 ()

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

Signature (Electronic Submission) — Date 07/23/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Mustafa Haque — Title Petroleum Engineer — Date 7-23-2018

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 Field 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.

(Instructions on page 2)

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

Additional data for EC transaction #428195 that would not fit on the form

32. Additional remarks, continued

See attached.

COG Operating LLC, Mortarboard Federal Com 13H

COG, Operating, LLC respectfully requests the following changes to the approved drilling plan.

A second intermediate casing string was run in this well following the loss of a fish in the hole while drilling the planned 8-3/4 production hole. It is proposed to change the production casing string to a tapered 5-1/2" x 5" string. Details are as follows:

13-3/8" surface casing was set and cement circulated at 854'.

9-5/8" intermediate casing was set and cement circulated at 5,358'.

7-5/8" intermediate casing was set and cement circulated at 11,471'.

The production interval will be drilled with 6-3/4" bits.

Casing String	TOC	% Excess
Production	Surface	*17%

*Cement calculated with 17% excess for open hole, 5% for casing x casing plus 50 extra sacks of lead.

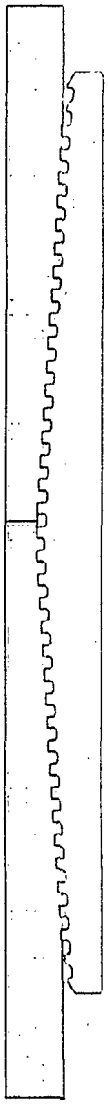
Casing String No.	String Type	Hole Size	Casing Size	Condition	Standard	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Length	Weight	Grade	Connection
4	Prod	6.750"	5.500"	N	API	0'	11000'	0'	10998'	11000'	23	HCP110	CDC-HTQ
4	Prod	6.750"	5.000"	N	API	11000'	19000'	10998'	11860'	8000'	18	HCP110	CDC-HTQ

String Type	Lead/Tail	Bottom MD	Quantity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Prod	Lead	11000'	350	3.56	10.3	1246	*5	Howco Tuned Lite	2# kolseal, 1.5# Calseal, 1/8# PEF, 0.5# Halad-9, & ¼# D-Air 5000
	Tail	19000'	725	1.47	13.2	1066	17	Howco Neocem	As needed

*Cement calculated with excesses shown plus 50 extra sacks of lead.

U. S. Steel Tubular Products

5 1/2 23.00 lb (0.415) P110RY CC** USS-CDC HTQ™



	PIPE	CONNECTION	
MECHANICAL PROPERTIES			
Minimum Yield Strength	**110,000**		*psi*
Maximum Yield Strength	**125,000**		*psi*
Minimum Tensile Strength	**125,000**		*psi*
DIMENSIONS			
Outside Diameter	**5.500**	6.300	*in.*
Wall Thickness	0.415		*in.*
Inside Diameter	4.670	4.670	*in.*
Drift - API	4.545	4.545	*in.*
Nominal Linear Weight, T&C	**23.00**		*lbs/ft*
Plain End Weight	22.56		*lbs/ft*
SECTION AREA			
Cross Sectional Area | Critical Area	6.630	6.630	*sq. in.*
Joint Efficiency		100.0	%
PERFORMANCE			
Minimum Collapse Pressure	15,310	15,310	*psi*
External Pressure Leak Resistance		12,250	*psi*
Minimum Internal Yield Pressure	14,520	14,520	*psi*
Minimum Pipe Body Yield Strength	729,000		*lbs*
Joint Strength		759,000	*lbs*
Compression Rating		455,000	*lbs*
Reference Length		22,000	*ft*
Maximum Uniaxial Bend Rating		57.2	*deg/100 ft*
MAKE-UP DATA			
Make-Up Loss		4.63	*in.*
Minimum Make-Up Torque		15,000	*ft-lbs*
Maximum Make-Up Torque		21,000	*ft-lbs*
Connection Yield Torque		27,800	*ft-lbs*
* Verification of connection shoulder required. Typical shoulder range		5,000 - 7,500	*ft-lbs*

Notes:

1) Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2) Uniaxial bending rating shown is structural only, and equal to compression efficiency
3) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.)
4) Reference length is calculated by joint strength divided by nominal T&C weight with 1.5 safety factor
5) Connection external pressure resistance has been verified to 80% API pipe body collapse pressure (API 5C5 Cal III testing protocol)

USS Product Data Sheet 2017 rev26 (Sept)

U. S. Steel Tubular Products
460 Wildwood Forest Dr., Suite 300S
Spring, TX 77380
1-877-893-9461
connections@uss.com
www.usstubular.com

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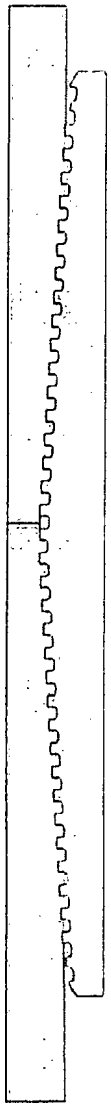

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Notes:

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