Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
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

HOBBS OCD
AUG 06 2018
RECEIVED

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

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 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.

Due to drilling fluid losses encountered and the loss of a fish in the hole while drilling the planned 8-3/4 production hole, it is proposed to spot a cement plug at the top of the fish which will plug back in the curve to ~ 11,750? MD and 66? inclination. A second intermediate casing string (7-5/8?) will then be run from surface to 11,750? and cemented with volumes calculated to circulate to surface. Details are as follows:
Surface casing was set and cement circulated at 854?.
Intermediate casing and cement circulated at 5358?.
8-3/4? hole was drilled below the first intermediate with the kick-off point at 11,150?, end of curve at 12,108?, and current well TD of 13,087?.

- All previous COAs still apply.

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

Electronic Submission #427047 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 07/11/2018

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 #427047 that would not fit on the form

32. Additional remarks, continued

While attempting to trip out for a BHA change, a fish was left in the hole with an OAL of 101? consisting of: bit, mud motor, xo, stabilizer, UBHO, 2 NMDCs and a 2? section of drill pipe. Subsequent attempts to retrieve the fish were unsuccessful.

See attached.

COG Operating LLC, Mortarboard Federal Com 13H

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

Due to drilling fluid losses encountered and the loss of a fish in the hole while drilling the planned 8-3/4 production hole, it is proposed to spot a cement plug at the top of the fish which will plug back in the curve to ~ 11,750' MD and 66° inclination. A second intermediate casing string (7-5/8") will then be run from surface to 11,750' and cemented with volumes calculated to circulate to surface. Details are as follows:

Surface casing was set and cement circulated at 854'.

Intermediate casing and cement circulated at 5358'.

8-3/4" hole was drilled below the first intermediate with the kick-off point at 11,150', end of curve at 12,108', and current well TD of 13,087'.

While attempting to trip out for a BHA change, a fish was left in the hole with an OAL of 101' consisting of: bit, mud motor, xo, stabilizer, UBHO, 2 NMDCs and a 2' section of drill pipe.

Subsequent attempts to retrieve the fish were unsuccessful.

Casing String	TOC	% Excess
OH Plug	11750'	12%
Intermediate 2	Surface	91%

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
3	Int 2	8.750"	7.625"	N	API	0'	3800'	0'	3800'	3800'	29.7	HPL80	BTC
3	Int 2	8.750"	7.625"	N	API	3800'	11750'	3800'	11603'	7950'	29.7	HCL80	FJM

String Type	Lead/Tail	Bottom MD	Quantity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Plug	Tail	12035'	135	1.06	16.4	143	12	Class H	0.3% dispersant
Int 2	Lead	10930'	625	3.54	10.3	2212	91	Howco Tuned Lite	2# kolseal, 1.5# Calseal, 1/8# PEF, 0.5# Halad-9, & ¼# D-Air 5000
	Tail	11750'	250	1.06	16.4	265	91	Class H	0.3% dispersant

Mortarboard Fed Com 13H

3rd Bone Spring Sand

Existing Wellbore

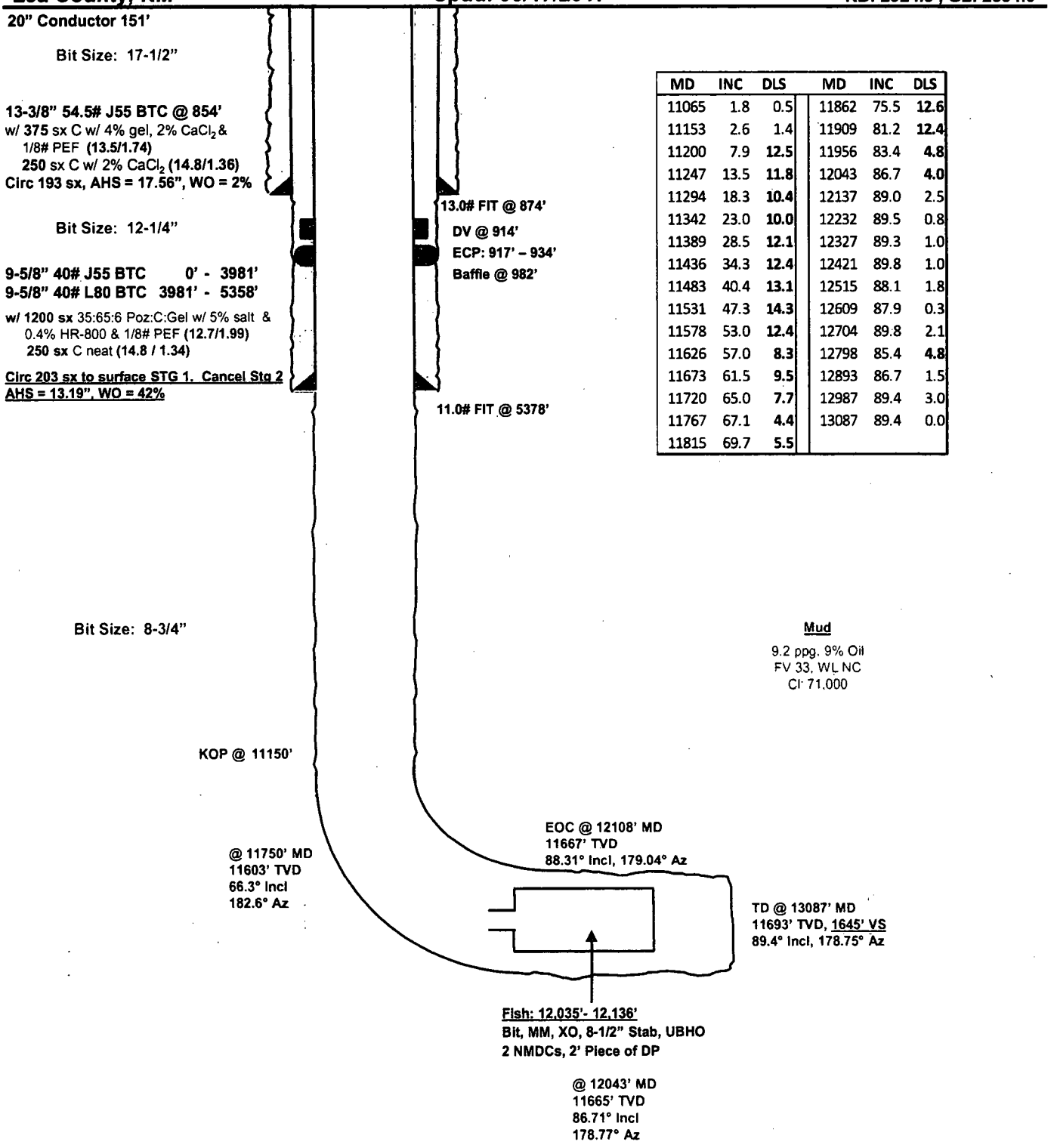
07/10/2018

210' FNL & 1980' FWL
S1,T24S, R34E
Lea County, NM

API: 30-025-44725

Spud: 06/17/2017

KB: 2924.5', GL: 2894.0'



MD	INC	DLS	MD	INC	DLS
11065	1.8	0.5	11862	75.5	12.6
11153	2.6	1.4	11909	81.2	12.4
11200	7.9	12.5	11956	83.4	4.8
11247	13.5	11.8	12043	86.7	4.0
11294	18.3	10.4	12137	89.0	2.5
11342	23.0	10.0	12232	89.5	0.8
11389	28.5	12.1	12327	89.3	1.0
11436	34.3	12.4	12421	89.8	1.0
11483	40.4	13.1	12515	88.1	1.8
11531	47.3	14.3	12609	87.9	0.3
11578	53.0	12.4	12704	89.8	2.1
11626	57.0	8.3	12798	85.4	4.8
11673	61.5	9.5	12893	86.7	1.5
11720	65.0	7.7	12987	89.4	3.0
11767	67.1	4.4	13087	89.4	0.0
11815	69.7	5.5			

Mud

9.2 ppg, 9% Oil
FV 33, WL NC
Cl 71,000

MEE: 07/10/2018

Mortarboard Fed Com 13H

3rd Bone Spring Sand

Proposed 2nd Intermediate

API: 30-025-44725

210' FNL & 1980' FWL
S1,T24S, R34E
Lea County, NM

Spud: 06/17/2017

KB: 2924.5', GL: 2894.0'

20" Conductor 151'

Bit Size: 17-1/2"

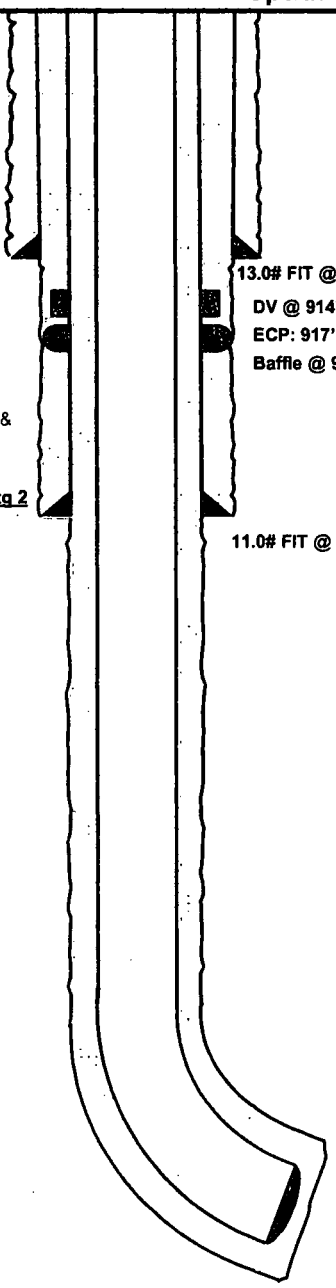
13-3/8" 54.5# J55 BTC @ 854'
w/ **375** sx C w/ 4% gel, 2% $CaCl_2$ & 1/8# PEF **(13.5/1.74)**
250 sx C w/ 2% $CaCl_2$ **(14.8/1.36)**
Circ 193 sx, AHS = 17.56", WO = 2%

Bit Size: 12-1/4"

9-5/8" 40# J55 BTC 0' - 3981'
9-5/8" 40# L80 BTC 3981' - 5358'
w/ 1200 sx 35:65:6 Poz:C:Gel w/ 5% salt & 0.4% HR-800 & 1/8# PEF **(12.7/1.99)**
250 sx C neat **(14.8 / 1.34)**
Circ 203 sx to surface STG 1. Cancel Stg 2
AHS = 13.19", WO = 42%

13.0# FIT @ 874'
DV @ 914'
ECP: 917' – 934'
Baffle @ 982'

11.0# FIT @ 5378'



7-5/8" 29.7# HP L80 BTC @ 0' - 3,800' (D_{FT-CTS} = 2.21)
7-5/8" 29.7# HC L80 FJM @ 3,800' - 11,750' (D_{FT-CTS} = 1.89)

625 sx Tuned Lite w/ 2# kolseal, 1.5# Calseal, 1/8# PEF, 0.5# Halad-9, & ¼# D-Air 5000 (10.3/3.54), **TT: 6:00+**
200 sx H w/ 0.3% dispersant (16.4 / 1.06), **TT: 3:30+**

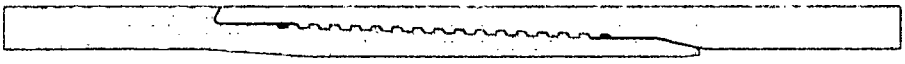
Est. 10.50" Hole, 91% WO, BHST = 160° F @ 11700'

MEE: 07/11/2018

U. S. Steel Tubular Products

6/6/2017 6:18:53 PM

7.625" 29.70lbs/ft (0.375" Wall) P110 HC USS-LIBERTY FJM®



MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM®	
Minimum Yield Strength	110,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	125,000	--	psi

DIMENSIONS	Pipe	USS-LIBERTY FJM®	
Outside Diameter	7.625	7.625	in.
Wall Thickness	0.375	--	in.
Inside Diameter	6.875	6.789	in.
Standard Drift	6.750	6.750	in.
Alternate Drift	--	--	in.
Nominal Linear Weight, T&C	29.70	--	lbs/ft
Plain End Weight	29.06	--	lbs/ft

SECTION AREA	Pipe	USS-LIBERTY FJM®	
Critical Area	8.541	5.074	sq. in.
Joint Efficiency	--	59.4	%

PERFORMANCE	Pipe	USS-LIBERTY FJM®	
Minimum Collapse Pressure	6,700	6,700	psi
Minimum Internal Yield Pressure	9,460	9,460	psi
Minimum Pipe Body Yield Strength	940,000	--	lbs
Joint Strength	--	558,000	lbs
Compression Rating	--	558,000	lbs
Reference Length	--	12,810	ft
Maximum Uniaxial Bend Rating	--	39.3	deg/100 ft

MAKE-UP DATA	Pipe	USS-LIBERTY FJM®	
Make-Up Loss	--	3.92	in.
Minimum Make-Up Torque	--	10,800	ft-lbs
Maximum Make-Up Torque	--	15,250	ft-lbs

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. Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4. USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness and cannot be interchanged.
5. 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.).
6. Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.
7. Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

U. S. Steel Tubular Products
10343 Sam Houston Park Dr. #120
Houston, TX 77064

1-877-893-9461
connections@uss.com
www.usstubular.com