Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED	
OMB No. 1004-0137	
Expires: October 31, 20	2

5. Lease Serial No

BURE	EAU OF LAND MANAGEMENT	5. Lease Serial No.			
Do not use this fo	OTICES AND REPORTS ON Worm for proposals to drill or to lse Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee o	r Tribe Name	
abandoned wen. C	ise Form 3160-3 (APD) for Suc	п ргорозаіз.	7 If II.: 4 - F.C.A./A	was the Name and Jon Na	
	RIPLICATE - Other instructions on page	e 2	7. If Unit of CA/Agree	ement, Name and/or No.	
1. Type of Well Gas W	ell Other		8. Well Name and No.		
2. Name of Operator			9. API Well No.		
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or I	Exploratory Area	
		()			
4. Location of Well (Footage, Sec., T.,R.	,M., or Survey Description)		11. Country or Parish,	State	
12. CHEC	CK THE APPROPRIATE BOX(ES) TO IND	DICATE NATURE OF NOT	TICE, REPORT OR OTH	HER DATA	
TYPE OF SUBMISSION		TYPE OF AC	CTION		
Notice of Intent	Acidize Deep Alter Casing Hydra	_	duction (Start/Resume)	Water Shut-Off Well Integrity	
			omplete	Other	
Subsequent Report			nporarily Abandon		
Final Abandonment Notice	Convert to Injection Plug	Back Wat	er Disposal		
completed. Final Abandonment Noticis ready for final inspection.)	ices must be filed only after all requirements	s, including reclamation, have	ve been completed and t	he operator has detennined that the site	
14. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)				
		Title			
Signature		Date			
	THE SPACE FOR FEDE	ERAL OR STATE OI	FICE USE		
Approved by					
•		Title	,) oto	
	ed. Approval of this notice does not warrant quitable title to those rights in the subject leaduct operations thereon.	or		Oate	
	U.S.C Section 1212, make it a crime for an		llfully to make to any de	partment or agency of the United States	

(Instructions on page 2)

Additional Information

Location of Well

0. SHL: SESE / 469 FSL / 1027 FEL / TWSP: 24S / RANGE: 32E / SECTION: 16 / LAT: 32.2115742 / LONG: -103.67438 (TVD: 0 feet, MD: 0 feet) PPP: SESE / 0 FSL / 1320 FEL / TWSP: 24S / RANGE: 32E / SECTION: 9 / LAT: 32.2247944 / LONG: -103.6753167 (TVD: 12177 feet, MD: 17225 feet) PPP: SESE / 100 FSL / 1320 FEL / TWSP: 24S / RANGE: 32E / SECTION: 16 / LAT: 32.2105567 / LONG: -103.6753283 (TVD: 11912 feet, MD: 11944 feet) BHL: NESE / 2540 FSL / 1320 FEL / TWSP: 24S / RANGE: 32E / SECTION: 9 / LAT: 32.231776 / LONG: -103.675311 (TVD: 12177 feet, MD: 19765 feet)



1. Geologic Formations

TVD of target	12,272' EOL	Pilot hole depth	13,010'
MD at TD:	22,531'	Deepest expected fresh water:	357'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	993	Water	
Top of Salt	1306	Salt	
Base of Salt	4514	Salt	
Lamar	4766	Salt Water	
Bell Canyon	4797	Salt Water	
Cherry Canyon	5687	Oil/Gas	
Brushy Canyon	7109	Oil/Gas	
Bone Spring Lime	8655	Oil/Gas	
1st Bone Spring Sand	9827	Oil/Gas	
2nd Bone Spring Sand	10392	Oil/Gas	
3rd Bone Spring Sand	11706	Oil/Gas	
Wolfcamp A	12109	Target	
Wolfcamp B	0	Not Penetrated	
Wolfcamp D	0	Not Penetrated	

2. Casing Program

Hole Size	Casing	Interval	Csg. Size	Weight	Grade	Conn.	SF	SF Burst	SF	SF
Tiole Size	From	То	Osg. Oize	(lbs)	Orace	COIIII.	Collapse	or Burst	Body	Joint
14.75"	0	1350	10.75"	45.5	N80	BTC	4.00	1.67	16.93	17.86
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.56	1.08	2.88	2.90
8.750"	8500	11800	7.625"	29.7	P110 RY	W 513	1.33	1.44	2.68	1.61
6.75"	0	11300	5.5"	23	P110	BTC	1.98	2.34	2.80	2.79
6.75"	11300	22,531	5.5"	23	P110	W441	1.82	2.15	2.58	2.35
				BLM I	Minimum Sa	fety Factor	1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5 1/2" talon casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Υ
Does casing meet API specifications? If no, attach casing specification sheet.	Υ
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Υ
Does the above casing design meet or exceed BLM's minimum standards? If not provide	Υ
justification (loading assumptions, casing design criteria).	·
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Υ
the collapse pressure rating of the casing?	
Is well leasted within Capitan Boof?	N
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back	
500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
	.
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H₂0 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	644	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
Suii.	250		1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	840	10.3	3.3	22	24	Halliburton tunded light
Stage 1	250	14.8	1.35	6.6	8	Tail: Class H
Prod	524	12.7	2	10.7	72	Lead: 50:50:10 H Blend
FIUU	1059	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	11,300'	35% OH in Lateral (KOP to EOL)

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		x	Tested to:											
			Ann	ular	Х	2500psi											
	13-5/8"	5M	Blind Ram		Х	5000psi											
9-7/8"			Pipe Ram		Х												
								İ						Double	e Ram	Χ	Socopsi
			Other*														
			5M Ar	nnular	Х	5000psi											
6-3/4"			Blind	Ram	Χ												
	13-5/8"	10M	Pipe	Ram	Χ	10000psi											
			Double	e Ram	Χ	Toooopsi											
			Other*														

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2.
Y	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

	Depth	Туре	Weight	Viscosity	Water Loss
From	То	rype	(ppg)	Viscosity	Water Loss
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	35-45	<20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Υ	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Add	litional logs planned	Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Υ	CBL	Production casing (If cement not circulated to surface)
Υ	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7980 psi at 12272' TVD
Abnormal Temperature	NO 180 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

х	H2S Plan.
х	BOP & Choke Schematics.
х	Directional Plan

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 84799

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	84799
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	2/28/2022