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Form 3160-4
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EMNRD-OCDARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM54398

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
 b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
 Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
COG OPERATING LLC
 Contact: AMANDA AVERY
 E-Mail: aavery@concho.com

8. Lease Name and Well No.
HOWITZER FEDERAL COM 602H

3. Address 2208 W MAIN STREET
ARTESIA, NM 88210

3a. Phone No. (include area code)
Ph: 575-748-6940

9. API Well No.
30-015-45831

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

Sec 12 T24S R28E Mer NMP
At surface NENE Lot A 1014FNL 620FEL 32.236874 N Lat, 104.034304 W Lon

Sec 12 T24S R28E Mer NMP
At top prod interval reported below NENE Lot A 1014FNL 620FEL 32.236874 N Lat, 104.034304 W Lon

Sec 11 T24S R28E Mer NMP
At total depth NWNW Lot D 678FNL 201FWL 32.237947 N Lat, 104.066275 W Lon

10. Field and Pool, or Exploratory
PURPLE SAGE; WOLFCAMP11. Sec., T., R., M., or Block and Survey
or Area Sec 12 T24S R28E Mer NMP12. County or Parish
EDDY13. State
NM14. Date Spudded
04/20/201915. Date T.D. Reached
06/26/2019

16. Date Completed
☐ D & A ☒ Ready to Prod.
11/23/2019

17. Elevations (DF, KB, RT, GL)*
2975 GL

18. Total Depth: MD 20139
TVD 9889

19. Plug Back T.D.:

MD 20048
TVD 9889

20. Depth Bridge Plug Set: MD 20057
TVD 9889

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
 Was DST run? ☒ No ☐ Yes (Submit analysis)
 Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
26.000	20.000 J55	94.0	0	315		650		0	
17.500	13.375 J55	61.0	0	2715		1500		0	
8.500	5.500 P110	20.0	0	4350		4350		0	
12.250	9.625 L80	47.0	0	9295		1600		0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	9421	9411						

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	10200	20032	10200 TO 20032		1600	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10200 TO 20032	SEE ATTACHED INFORMATION

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
01/20/2020	01/20/2020	24	→	420.0	1967.0	4529.0			GAS LIFT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	1700	1500.0	→	420	1967	4529		PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #503749 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(*Sold, used for fuel, vented, etc.*)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
RUSTLER	477			RUSTLER	477
TOP OF SALT	981			TOP OF SALT	981
BOTTOM OF SALT	2529			BOTTOM OF SALT	2529
LAMAR	2714			LAMAR	2714
BELL CANYON	2751			BELL CANYON	2751
CHERRY CANYON	3638			CHERRY CANYON	3638
BRUSHY CANYON	4866			BRUSHY CANYON	4866
BONE SPRING LIMESTONE	6444			BONE SPRING LIMESTONE	6444

32. Additional remarks (include plugging procedure):

AVALON 7111
FIRST BONE SPRING 7428
SECOND BONE SPRING 8227
THIRD BONE SPRING 9334
WOLFCAMP 9690

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #503749 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Carlsbad**

Name (*please print*) AMANDA AVERY

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 02/19/2020

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.

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