

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-Artesia

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMLC029338B

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other		7. Unit or CA Agreement Name and No.	
2. Name of Operator COG OPERATING LLC		8. Lease Name and Well No. HARVARD FEDERAL 13	
3. Address 550 WEST TEXAS AVENUE SUITE 100 MIDLAND, TX 79701-4287		9. API Well No. 30-015-37827-00-S1	
3a. Phone No. (include area code) Ph: 432-686-3087		10. Field and Pool, or Exploratory LOCO HILLS GLORIETA-YESO	
4. Location of Well (Report location clearly and in accordance with Federal requirements) At surface NENE Lot A 623FNL 880FEL At top prod interval reported below NENE Lot A 623FNL 880FEL At total depth NENE Lot A 386FNL 976FEL		11. Sec., T., R., M., or Block and Survey or Area Sec 11 T17S R30E Mer NMP	
14. Date Spudded 10/08/2010		15. Date T.D. Reached 10/17/2010	
16. Date Completed 11/09/2010		17. Elevations (DF, KB, RT, GL)* 3749 GL	
18. Total Depth: MD 6278 TVD 6278		19. Plug Back T.D.: MD 6170 TVD 6170	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) COMPENSATED NEUT	
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
17.500	13.375 H-40	48.0	0	400		450		0	
12.250	8.625 J-55	24.0	0	1327		500		0	
7.875	5.500 J-55	15.5	0	6268	2727	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	5635							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) GLORIETA YESO			4630 TO 4900	0.410	26	OPEN, Paddock
B) PADDOCK	4630	4900	5130 TO 5330	0.410	26	OPEN, Blinebry
C) BLINEBRY	5670	5870	5400 TO 5600	0.410	26	OPEN, Blinebry
D)			5670 TO 5870	0.410	26	OPEN, Blinebry

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

Depth Interval	Amount and Type of Material
4630 TO 4900	ACIDIZE W/3,641 GALS 15% ACID.
4630 TO 4900	FRAC W/117,441 GALS GEL, 132,832# 16/30 WHITE SAND, 21,169# 16/30 SIBERPROP.
5130 TO 5330	ACIDIZE W/3,856 GALS 15% ACID.
5130 TO 5330	FRAC W/124,295 GALS GEL, 148,509# 16/30 WHITE SAND, 31,465# 16/30 SIBERPROP.

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
12/13/2010	12/13/2010	24	→	126.0	234.0	381.0	38.0		ELECTRIC PUMPING UNIT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. 70.0	24 Hr. Rate →	Oil BBL 126	Gas MCF 234	Water BBL 381	Gas:Oil Ratio 1857	Well Status POW	

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
12/13/2010	12/13/2010	24	→	126.0	234.0	381.0	38.0		ELECTRIC PUMPING UNIT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. 70.0	24 Hr. Rate →	Oil BBL 126	Gas MCF 234	Water BBL 381	Gas:Oil Ratio	Well Status POW	

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

ELECTRONIC SUBMISSION #99221 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

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.)
CAPTURED

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
YATES QUEEN SAN ANDRES GLORIETA YESO TUBB	1441 2347 3072 4539 4602 6010		DOLOMITE & SAND SAND DOLOMITE & ANHYDRITE DOLOMITE & SAND DOLOMITE & ANHYDRITE SAND	YATES QUEEN SAN ANDRES	1441 2347 3072

32. Additional remarks (include plugging procedure):

44. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. CONTINUED...

5400-5600 ACIDIZE W/3,608 GALS 15% ACID.

5400-5600 FRAC W/123,995 GALS GEL, 144,976# 16/30 WHITE SAND, 31,398# 16/30 SIBERPROP.

5670-5870 ACIDIZE W/3,516 GALS 15% ACID.

5670-5870 FRAC W/124,234 GALS GEL, 146,442# 16/30 WHITE SAND, 31,906# 16/30 SIBERPROP.

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 #99221 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by CHERYLE RYAN on 12/17/2010 (11CMR0170SE)

Name (please print) CHASITY JACKSON

Title PREPARER

Signature (Electronic Submission)

Date 12/16/2010

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

Additional data for transaction #99221 that would not fit on the form

27. Acid, Fracture, Treatment, Cement Squeeze, etc., continued

Depth Interval	Amount and Type of Material
5400 TO 5600	3608 gal 15% acid
5400 TO 5600	123995 gal gel, 144976# 16/30 White sand, 31398 # 16/30 siberprop
5670 TO 5870	3516 gal 15% acid
5670 TO 5870	124234 gal gel, 146442# 16/30 White sand, 31906# 16/30 siberprop