

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTN.M. Oil Cons. Div-DEM 2
1301 W. Grand Avenue
NM 88210FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No. LC-072015-C							
b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr., Other _____		6. If Indian, Allottee or Tribe Name							
2. Name of Operator COG Operating LLC		7. Unit or CA Agreement Name and No. 34622							
3. Address 550 W. Texas, Suite 1300		8. Lease Name and Well No. Hanson 33 Federal #4							
3a. Phone No. (include area code) 432-685-4340		9. AFI Well No. 30-015-33951 SI							
4. Location of Well (Report location clearly and in accordance with Federal requirements) At surface 890' FNL & 1090' FWL, Unit D At top prod. interval reported below At total depth		10. Field and Pool, or Exploratory Avalon-Atoka (Gas)							
11. Date Spudded 05/10/2005		12. County or Parish Eddy							
15. Date T.D. Reached 06/17/2005		13. State NM							
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.		17. Elevations (DF, RKB, RT, GL)* 3219' GL							
18. Total Depth: MD TVD 11,050		20. Depth Bridge Plug Set: MD 10,590 TVD							
19. Plug Back T.D.: MD TVD 10,555		22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)							
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) Micro CFL / GR									
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.5	13.375	48	487			400 C			85 sx to pit
11	8.625	32	2228			950 C			15 sx to pit
7.875	5.5	17	11,050			1760 Cmcrite			
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2-7/8	9900	9900'							
25. Producing Intervals									
Formation	Top	Bottom	Perforated Interval		Size	No. Holes	Perf. Status		
A) Lower Morrow			10,866' - 10,879'		.42	26	Plugged		
B) Morrow			10,672' - 10,681'		.42	40	Plugged		
C) Atoka			9995' - 10,001'		.42	36	Open		
D)									
27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval	Amount and Type of Material								
10,866' - 10,879' (L. Morrow)	Az Lower Morrow perms w/ 1500 gal 7-1/2% Morrow blend acid & 102,000 SCF of N2.								
10,672' - 10,681' (Morrow)	Az Morrow perms w/ 2000 gal 7-1/2% Morrow acid & 122,000 SCF of N2.								
10,628' - 10,638' (Morrow)	Frac Morrow perms w/ 45,600 gal quality binary foam & 42,000# 18/40 ultraprop.								
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
08/24/2005	08/29/2005	24	→	0	758	0			FLOWING
Choke Size 8/64	Tbg. Press. Flwg. SI 850	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
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 page 2)

ACCEPTED FOR RECORD

OCT 18 2005

ALEXIS C. SWOBODA
PETROLEUM ENGINEER

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
DELAWARE	2285				
BONE SPRING	4242				
1ST BONE					
SPRING SAND	5722				
3RD BONE					
SPRING SAND	7772				
WOLFCAMP	8297				
STRAWN	9618				
ATOKA	9956				
MORROW	10,170				
MORROW SANDS	10,532				
LOWER MORROW	10,764				

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification
☒ Core Analysis
☒ Other:

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

Name (please print) Phyllis A. EdwardsTitle Regulatory AnalystSignature Phyllis A. EdwardsDate 10/17/2005

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.

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-33951	70880	Avalon - Atoka (Gas)
Property Code	Property Name	Well Number
	HANSON 33 FEDERAL	4
OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC.	3219'

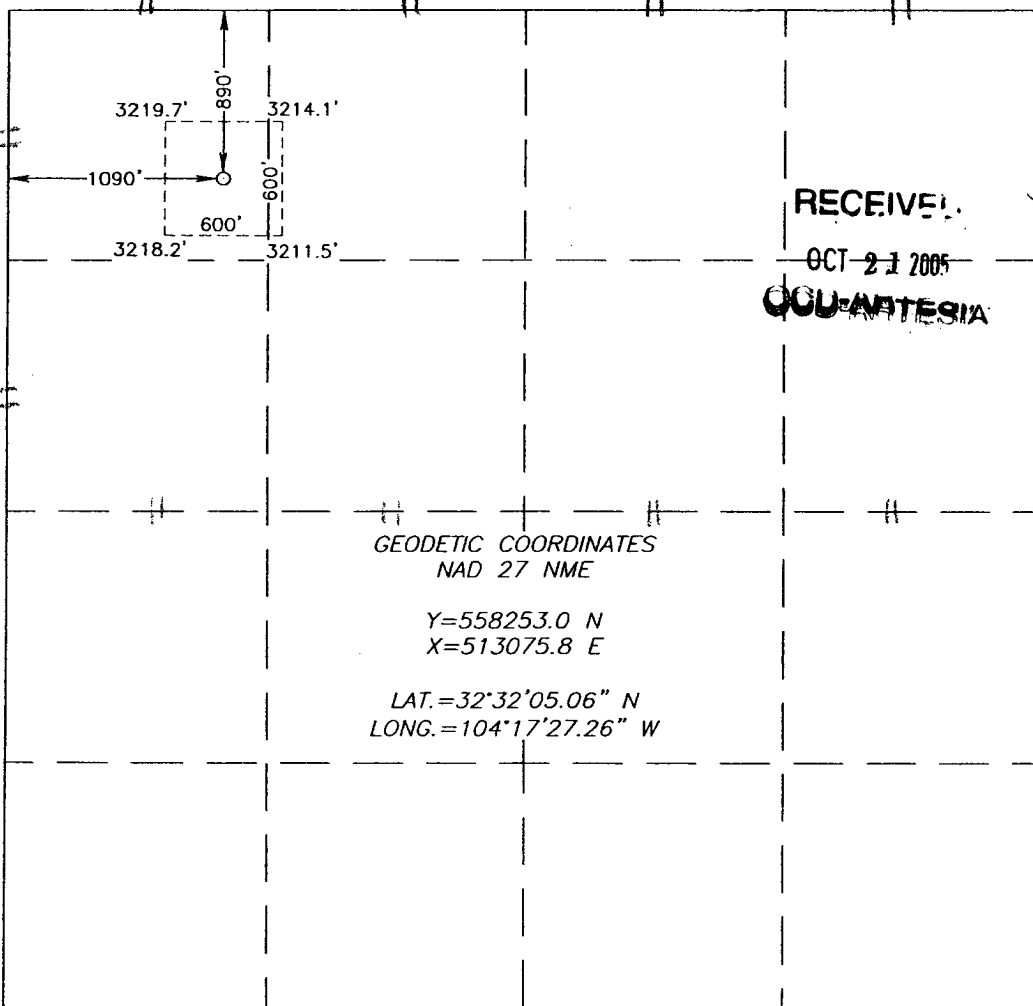
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	20-S	27-E		890	NORTH	1090	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>RECEIVED OCT 21 2005 OCU-ARTESIA</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Phyllis A. Edwards</i> Signature Phyllis A. Edwards Printed Name Regulatory Analyst Title 10-14-05 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DECEMBER 20, 2004</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>GARY EIDSON</i> 04.11.1729 Certificate No. GARY EIDSON 12841</p>
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OPERATOR COG OPERATING
WELL/LEASE HANSON 33 #4
COUNTY EDDY, NM

056-0016

STATE OF NEW MEXICO
DEVIATION REPORT

172	1	6,834	2
442	1 1/4	6,961	1 1/2
635	1 1/4	7,099	2 1/4
886	1/2	7,195	3
1,104	1	7,385	3
1,324	1 1/4	7,480	3
1,543	1/2	7,670	3
1,728	1	7,765	2
1,914	1	7,861	2 3/4
2,206	1	7,956	2 3/4
2,405	3/4	8,051	2 1/4
2,655	1	8,146	2
2,906	1/2	8,241	2 1/2
3,158	1	8,432	2 1/4
3,406	1	8,527	2 1/2
3,660	1 3/4	8,622	2
3,755	1 1/2	8,713	2 1/2
3,850	1	8,908	1 3/4
3,946	3/4	9,098	2
4,135	3/4	9,320	3 1/4
4,324	1	9,415	4
4,576	3/4	9,510	3
4,765	1/4	9,637	2
5,053	1	9,765	2 1/2
5,244	1 1/4	9,890	3
5,434	2	10,019	2 1/2
5,528	1 1/4	10,145	2
5,623	1 3/4	10,272	2
5,719	2	10,427	2 3/4
5,876	1 1/2	10,744	3/4
6,003	1 1/4	10,870	1/2
6,130	1	11,050	1/2
6,257	1 3/4		
6,383	1 1/2		
6,511	1 3/4		
6,677	2		

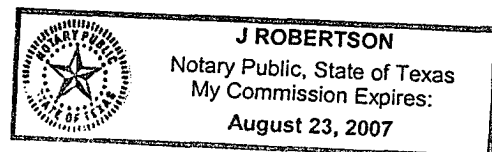
BY: Steve Moore

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Moore on behalf of Patterson - UTI Drilling Company, LP, LLLP.

June 24, 2005, by Steve

Notary Public for Midland County, Texas
My Commission Expires: 8/23/07



CORE LABORATORIES

Company : COG OPERATING LLC
 Well : HANSON "33" FEDERAL NO. 4
 Location : 890' FNL & 1090' FNL, SEC. 33, T-20-S, R-27-E
 Co, State : EDDY COUNTY, NEW MEXICO

Field : AVALON FIELD
 Formation : VARIOUS
 Coring Fluid : BRINE
 Elevation : 3219' GL

File No.: 57181-18956
 Date : 6/17/05
 API No. : 30-015-33951
 Analysts: FULLINWIDER

SIDEWALL CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH ft
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SAMPLE NUMBER	DEPTH ft
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1 3883.0
 2 4198.0
 3 4209.0
 4 4214.0
 5 4223.0
 6 4231.0

16 9509.
 17 9527.0

18 9978.0
 19 9997.5
 20 9998.0

7 4460.0
 8 4465.0
 9 4479.0
 10 5739.0

21 10423.0
 22 10426.0
 23 10634.0
 24 10676.0
 25 10871.0
 26 10874.5

11 9139.0
 12 9142.0
 13 9355.0
 14 9359.0
 15 9440.0