

1625 N. French Dr.

Hobbs, NM 88240

Form 3160-5  
(June 1990)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.

LC031621A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Britt No. 12

9. API Well No.

30-025-05999

10. Field and Pool, or Exploratory Area

Eumont Gas

11. County or Parish, State

Lea County, New Mexico

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Doyle Hartman

3. Address and Telephone No.

500 N. Main St., Midland, Texas 79701 (915) 684-4011

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

330' FNL &amp; 2281' FWL Sec. 7, T-20-S, R-37-E (C)

## 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

- ☐
- Notice of Intent
- 
- ☒
- Subsequent Report
- 
- ☐
- Final Abandonment Notice

## TYPE OF ACTION

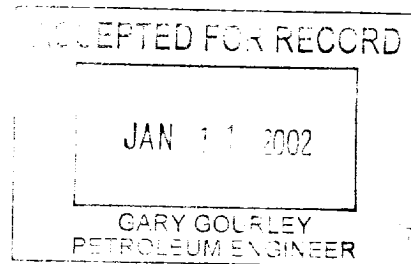
- ☐
- Abandonment
- 
- ☒
- Recompletion
- 
- ☐
- Plugging Back
- 
- ☐
- Casing Repair
- 
- ☐
- Altering Casing
- 
- ☒
- Other Return well to active producing status

- ☐
- Change of Plans
- 
- ☐
- New Construction
- 
- ☐
- Non-Routine Fracturing
- 
- ☐
- Water Shut-Off
- 
- ☐
- Conversion to Injection
- 
- ☐
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

In regard to our 3160-5 filing dated 9/25/01, and the BLM's "note to operator" dated 10/3/01 (copy enclosed), we have performed the following subsequent well work, as described on pages 2 of 5, 3 of 5, 4 of 5 and 5 of 5, attached hereto.



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

Signed Steve Hartman Title Engineer Date 01/08/02

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

\*See Instruction on Reverse Side

### **Details of Completed Operations**

1. Moved in and rigged up well service unit, on 10-16-01.
2. Ran new 2 3/8" O.D. tubing and bottom-hole drilling assembly consisting of 4 3/4" bit and (6) 3 1/2" O.D. drill collars.
3. Drilled cement, from 2725' to 3000'. Pulled drill string.
4. Ran and set 5 1/2" Model "C" packer, at 2833'. Pressure tested wellbore, from 2833' to 3000', to 3000 psi. Pressure held okay.
5. Pressure tested 5 1/2" O.D. casing, from 0' to 2833', to 2000 psi. Pressure held okay.
6. Pulled 5 1/2" Model "C" packer.
7. Re-ran bottom-hole drilling assembly. Drilled an additional 90' of cement, from 3000' to 3090'. Circulated hole clean.
8. Pressure tested wellbore, from 0' to 3090', to 2000 psi. Pressure held okay. Pulled bottom-hole drilling assembly.
9. Rigged up Schlumberger. Logged well with DS-CNL-GR-CCL log and VDCBL-GR-CCL log.
10. Ran open-ended 2 3/8" O.D. tubing. Blew well dry. Pulled 2 3/8" O.D. tubing.
11. Temporarily plugged well back, to 3004', by pouring 10.5 sx of 20/40 frac sand down hole. Flushed frac sand with 2% KCL water. Allowed sand to fall to bottom.
12. Ran 2 3/8" O.D. open-ended tubing. Tagged frac sand, at 3004'. Blew wellbore dry. Pulled 2 3/8" O.D. tubing.
13. Rigged up wireline truck. Perforated wellbore with (4) 0.38" x 19" holes, with one shot each, at 2837', 2850', 2938', 2955'.
14. Ran 2 3/8" O.D. tubing, to 2980'. Spotted 500 gal of 15% MCA acid, from 2380' to 2980'. Shut down overnight. At 8:00 a.m., 10-23-01, SITP = 43 psig.

15. Lowered tubing to 3001'. Spotted an additional 250 gal of 15% MCA acid. Pulled 2 3/8" O.D. tubing.
16. Ran 2 3/8" O.D. tubing and 5 1/2" Model "C" packer. Set 5 1/2" Model "C" packer, at 2197'. Acidized both old and new perforations, from 2837' to 2983' (15 holes), with an additional 2300 gal of 15% MCA acid and 41 ball scalers, at an average treating rate of 4.2 BPM and average treating pressure of 2545 psi.  $TP_{mx} = 2680$  psi. ISIP = 1822 psi. 15-min SIP = 1684 psi. Flowed well to blowdown tank, for 22 minutes.
17. Pulled 5 1/2" Model "C" packer. Rigged up wireline truck. Perforated well with (20) 0.38" x 19" holes, with one shot each at:

2586'	2631'	2666'	2713'
2593'	2635'	2671'	2721'
2595'	2646'	2699'	2734'
2605'	2661'	2701'	2744'
2629'	2664'	2711'	2756'

18. Ran 5 1/2" Model "C" packer and 5 1/2" Model "C" RBP. Set RBP at 2790'. Spotted 300 gal of 15% MCA acid across and above perfs, from 2586' to 2756'. Raised and set packer, at 2485'. Pumped an additional 300 gal of acid down 2 3/8" O.D. tubing. Let acid soak for 30 minutes.
19. Acidized perfs, from 2586' to 2756' (20 holes), with an additional 3300 gal of 15% MCA acid and 34 ball sealers, at an average treating rate of 6 BPM and average treating pressure of 2850 psi.  $TP_{mx} = 3200$  psi (at ballout). ISIP = 1646 psi. 10-min SIP = 1679 psi. Flowed well to blowdown tank, for 45 minutes.
20. Pulled 5 1/2" Model "C" packer. Rigged up wireline truck. Perforated well with (18) 0.38" x 19" holes, with one shot each at:

2293'	2370'	2414'	2508'
2294'	2387'	2416'	2515'
2323'	2394'	2441'	2517'
2353'	2409'	2443'	
2355'	2412'	2481'	

21. Ran 5 1/2" Model "C" packer and retrieving tool. Raised and set 5 1/2" Model "C" RBP, at 2555'. Spotted 350 gal of 15% MCA acid across and above perfs, from 2293' to 2517'.

Raised and set 5 1/2" Model "C" packer, at 2197'. Let acid soak for 30 minutes. Acidized perms, from 2293' to 2517' (18 holes), with an additional 3700 gal of 15% MCA acid and 27 ball scalers, at an average treating rate of 6.9 BPM and average treating pressure of 3100 psi.  $TP_{mx} = 3230$  psi. ISIP = 1656 psi. 15-min SIP = 1544 psi. Did not ball out. Flowed well to blowdown tank, for 20 minutes.

22. Pulled and laid down 5 1/2" Model "C" packer and 5 1/2" Model "C" RBP.
23. Ran and landed 2 3/8" O.D. tubing, at 2977' RKB (93 jts @ 31.73'/jt + 1.1' SN + 18' MA - 3' AGL + 10' KBC = 2976.99'). Ran 2" x 1 1/4" x 12' RHAC insert pump and (118) 3/4" x 25' API Class "KD" rods. Commenced pumping and cleaning up well, at 5:00 p.m., CDT, 10-24-01, at 9.2 x 64 x 1 1/4. At 8:00 a.m., 10-25-01, SICP = 326 psig.
24. After pumping and cleaning up well, for 8 days, performed the following well test:
- |              |   |           |
|--------------|---|-----------|
| Date:        |   | 11-1-01   |
| Gas Rate     | = | 39 MCFPD  |
| Orifice Size | = | 0.250"    |
| Water Rate   | = | 1.5 BWPD  |
| FCP          | = | 22.8 psig |
| OP           | = | 22.8 psig |
25. Rigged up Halliburton. Cemented down 13 3/8" x 8 5/8" casing annulus, with 240 sx of API Class "C" cement containing 3% CaCl<sub>2</sub>. Observed cement returns back to surface, on outside of 13 3/8" O.D. casing. Filled 4' x 4' x 4' cellar box with 48 sx of API Class "C" cement containing 3% CaCl<sub>2</sub>. Shut in well, for buildup.
26. Moved in well service unit, on 11-5-01. Blew down casing. Pulled rods and pump. Raised bottom of 2 3/8" O.D. tubing, to 2282'. Installed 3 1/2" heavy-duty frac valves and 2 3/8" carbide blast joint. Made up flowing wellhead assembly. Shut in well, for overnight buildup. 15.5-hr SICP = 491 psig.
27. Rigged up Halliburton frac equipment. Performed CO<sub>2</sub> foam frac down 5 1/2" x 2 3/8" casing-tubing annulus, with 166,248 gal of gelled water and CO<sub>2</sub> (53.2% CO<sub>2</sub>), and a total of 400,000 lbs of frac sand (10% 20/40, 15% 10/20, 75% 8/16), at an average treating rate of 29.3 BPM and average wellhead casing pressure of 2766 psig. Static wellhead tubing pressure = 2355 psig.

Page 5 of 5  
BLM Form 3160-5 dated 1-08-02  
Doyle Hartman  
H.M. Britt No.12  
C-6-20S-37E  
API No. 30-025-05999

28. Flowed well overnight to blowdown tank.
29. Rigged up air units. Cleaned out wellbore, to 3090'. Landed bottom of 2 3/8" O.D. tubing string at 3040' RKB (95 jts @ 31.73'/jt + 1.1' SN + 18' MA - 3' AGL + 10' KBC = 3040.45'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string. Commenced pumping and cleaning up well, at 4:30 p.m., 11-7-01, for recovery of frac fluid and CO<sub>2</sub>.
30. Performed potential test, on 1-2-02.

Gas Rate	=	215 MCFPD
Water Rate	=	5.85 BWPD
CO <sub>2</sub>	=	2%
Choke Size	=	29/128
CP	=	61 psi
LP	=	16.1 psi

Wellbore has now been returned to beneficial use, as Upper Eumont gas producer, from 2293' to 2983' (53 holes).