

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. C" Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Bureau No. 1004-0135
Expires: March 31, 1993

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)
660' FNL & 1980' FWL (C) Section 7, T-20-S, R-37-E, NMPM

5. Lease Designation and Serial No.
LC-031621A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
H.M. Britt No. 2

9. API Well No.
30-025-05990

10. Field and Pool, or Exploratory Area
Eumont (Y-7R-Qn)

11. County or Parish, State
Lea Co., NM

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 & Cement Repair
☐ Altering Casing
☒ Other Return to Beneficial Use *

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

(Replacement for Adjacent Britt No. 12
Eumont Well)

(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.)

For Details of Completed Operations, please refer to pages 1 of 7, 2 of 7, 3 of 7, 4 of 7, 5 of 7, 6 of 7, and 7 of 7 attached hereto, and made a part hereof.

ACCEPTED FOR RECORD
OFFIC. SGD. DAVID R. GLASS
OCT - 3
DAVID R. GLASS
PETROLEUM ENGINEER

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

Signed 

Title Steve Hartman, Engineer

Date 09/25/01

(This space for Federal or State office use)

Approved by _____
Conditions of approval, if any:

Title _____

Date _____

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.

* Last Production 10/54.
(Production History Attached)

*See Instruction on Reverse Side

DETAILS OF COMPLETED OPERATIONS

Moved in and rigged up well service unit. Installed B & M Oil Tool 7" x 2 3/8" x 3" Type MR tubinghead.

Ran new string of 2 3/8" O.D., 4.7 lb/ft, J-55, EUE tubing equipped with cementing stinger. Stung into 7" EZ-Drill retainer, at 3389' (set 3-24-98). Cemented old perfs (7-6-77), from 3453' to 3538', with 150 sx of API Class "C" cement containing 2% CaCl₂, 3 lb/sx Gilsonite, and 0.25 lb/sx Flocele, to a maximum squeeze pressure of 4436 psi. Reversed excess cement from tubing. Pulled 2 3/8" O.D. tubing and cementing stinger.

Ran 2 3/8" O.D. tubing equipped with 185.52' bottom-hole assembly, consisting of 6 1/4" bit and (6) 4 3/4" O.D. drill collars. Drilled cement (including 7" EZ-Drill retainer), from 3389' to 3544'.

Lowered bottom-hole drilling assembly, to PBTD of 3762'. Circulated hole clean. Pulled 2 3/8" O.D. tubing and bottom-hole drilling assembly.

Rigged up Schlumberger. Logged well with DS-CNL-GR-CCL log (dated 5-24-01) and VDCBL-GR-CCL log (dated 5/24/01).

Rigged up Capitan Corporation wireline truck. Perforated 7" O.D. casing, from 3323' to 3495', with (15) 0.44" x 23" squeeze holes.

Ran 2 3/8" O.D. tubing equipped with Baker 7" Model "C" packer and 7" Model "C" RBP. Set 7" Model "C" RBP, at 3510'. Spotted 150 gal of acid across and above squeeze perfs, from 3323' to 3495'.

Raised and set 7" Model "C" packer, at 3425'. Acidized squeeze perfs, from 3448' to 3495' (4 holes), with an additional 200 gal (total of 350 gal) of 15% NEFE acid. Performed injectivity test, at 2 BPM, at 1200 psi. ISIP = 0 psi.

Raised and set 7" Model "C" RBP, at 3425'. Spotted 150 gal of acid across and above squeeze perfs, from 3323' to 3408' (11 holes). Acidized squeeze perfs, from 3323' to 3408',

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with an additional 500 gal (total of 650 gal) of 15% NEFE acid. Performed injectivity test (3323' to 3408'), at 3.0 BPM, at 1025 psi.

Pulled 7" Model "C" packer and 7" Model "C" RBP.

Rigged up Capitan Corporation wireline truck. Set 7" EZ-Drill cementing retainer, at 3298'.

Ran 2 3/8" O.D. tubing equipped with cementing stinger. Cemented squeeze perfs, from 3323' to 3495' (15 holes), with 400 sx of API Class "C" neat cement, followed by 150 sx of API Class "C" cement containing 2 % CaCl_2 , 3 lbs/sx Gilsonite, and 0.25 lb/sx Flocele, to a maximum squeeze pressure of 4400 psi, at 0.2 BPM. Reversed excess cement from tubing. Pulled 2 3/8" O.D. tubing and cementing stinger.

Rigged up Capitan Corporation. Perforated 7" O.D. casing, from 3055' to 3230', with (22) 0.44" x 23" squeeze holes.

Ran and set 7" Model "C" packer, at 3240'. Spotted 400 gal of 15% NEFE acid across and above squeeze perfs, from 3055' to 3230' (22 holes). Acidized squeeze perfs, from 3055' to 3230', with an additional 300 gal (total of 700 gal) of 15% NEFE acid. Performed injectivity test (3055' to 3230'), at 3 BPM, at 1750 psi. Pulled 7" Model "C" packer.

Rigged up Capitan Corporation. Set 7" EZ-Drill retainer, at 3000'. Ran 2 3/8" O.D. tubing equipped with cementing stinger. Cemented squeeze perfs, from 3055' to 3230' (22 holes), with 400 sx of API Class "C" neat cement, followed by 100 sx of API Class "C" cement containing 2% CaCl_2 , 3 lb/sx Gilsonite, and 0.25 lb/sx Flocele. Final squeeze pressure = 4424 psi.

Reversed excess cement from tubing. Pulled 2 3/8" O.D. tubing and cementing stinger.

Ran 185.52' bottom-hole drilling assembly, equipped with 6 1/4" bit and (6) 4 3/4" O.D. drill collars. Drilled cement (including 7" EZ-Drill retainer), from 3055' to 3250'.

Lowered bottom-hole drilling assembly, to top of retainer, at 3298'. Drilled cement (including 7" EZ-Drill retainer), from 3298' to 3550'.

Lowered bottom-hole drilling assembly, to 3762'. Circulated hole clean. Pulled bottom-hole

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drilling assembly.

Rigged up Capitan Corporation. Perforated (11) 0.44" x 23" squeeze holes, from 2955' to 3039'.

Rigged up casing crew. Ran 5 1/2" x 5" combination casing string.

92 jts of 5 1/2" O.D. , 14 lb/ft, J-55, ST&C casing	2985.01'
5 1/2" x 5", J-55 casing crossover (at 2985')	1.31'
25 jts of 5" O.D., 15 lb/ft, J-55, ST&C casing	756.57'
equipped with (25) 7" x 5" centralizers	
(1) TIW 5" Type C-LF landing collar	1.22'
(1) 5" O.D., 15 lb/ft, J-55 ST&C pup joint	15.14'
(1) TIW 5" Type TC226 double-valve set shoe	2.90'
<hr/> Total	<hr/> 3762.15'

Landed 5 1/2" x 5" combination casing string at 3761', with landing collar at 3743', and 5 1/2" x 5" casing crossover at 2985'.

Cemented casing, at 5.3 BPM, with 200 sx of API Class "C" neat cement, followed by 325 sx of API Class "C" cement, containing 1.25 % CaCl₂, 1.40 lb/sx Gilsonite, and 0.12 lb/sx Flocele. Displaced wiper plug, with 84 bbls of fresh water, at an initial displacement rate of 5 BPM. Final displacement rate was 0.25 BPM, at 4000 psi. Circulated 200 sx of excess cement to pit. Released pressure. Float held okay.

Pressured 7" x 5 1/2" casing annulus to 1000 psi. Closed 3" casing-annulus valve.

Installed 5 1/2" x 2 3/8" x 3" tubinghead. Installed BOP.

Ran 176.71' bottom-hole drilling assembly, consisting of 4 3/4" bit and (6) 3 1/8" drill

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collars, to 2985' (top of 5 1/2" x 5" crossover). Found no cement inside of 5 1/2" O.D. casing. Pulled 176.71' bottom-hole drilling assembly.

Ran 179.83' bottom-hole drilling assembly, consisting of 4 1/4" bit, 5" casing scraper, and (6) 3 1/8" drill collars. Drilled cement, from 3348' to 3743' (top of 5" landing collar). Circulated hole clean. Pulled 179.83' bottom-hole drilling assembly.

Rigged up Schlumberger. Logged well with VDCBL-GR-CCL log (dated 6-5-01) and Temperature-GR-CCL log (dated 6-5-01). Found good bonding, from 2955' to 3743'.

Ran 2 3/8" O.D. tubing. Rigged up air unit. Unloaded water from hole. Pulled 2 3/8" O.D. tubing.

Rigged up Capitan Corporation. Perforated Penrose (Lower Queen), from 3215' to 3277', with (18) 0.38" x 19" holes.

Ran and set 5" Model "C" packer, at 3290'. Spotted 150 gal of acid across and above perfs, from 3215' to 3277'. Raised packer to 3135'. Pumped an additional 350 gal of spot acid down 2 3/8" O.D. tubing. Let acid soak for 45 minutes.

Acidized perfs, from 3215' to 3277' (18 holes), with an additional 3000 gal (total of 3500 gal) of 15% MCA acid, and 22 ball sealers, at 4.1 BPM, and an average treating pressure of 2177 psi. $TP_{mx} = 2800$ psi (at ballout).

ISIP = 972 psi.
2-min SIP = 132 psi.
4-min SIP = 0 psi.

Pulled 5" Model "C" packer.

Ran and set 2 3/8" O.D. tubing, at 3510' RKB (107 jts @ 32.56'/jt + 1.1' SN + 18' MA - 3' AGL + 10' KBC = 3510.02'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" rod string consisting of (138) 3/4" x 25' Axelson S-87 API Class "KD" rods, (1) 3/4" x 8' rod sub, (2) 3/4" x 2' rod subs, and 1 1/4" x 16' polish rod. Commenced pump testing Penrose (Lower Queen) perfs, at 8:00 P.M., CDT, 6-6-01, at 8.5 spm x 74" x 1 1/4". Observed the following well performance:

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Date: 6/18/01
Gas Rate = 25 MCFPD
Water Rate = 1.54 BPD
Orifice Size = 0.250"
CP = 10.2 psi

Rigged up well service unit. Pulled rods and tubing.

Ran and set 5" Model "C" RBP, at 3205'. Loaded casing, with 20 bbls of 2% KCL water.

Rigged up Schlumberger. Re-logged well, from 2350' to 3205', with DS-CNL-GR-CCL log (dated 6-19-01).

Ran 2 3/8" O.D. tubing. Hooked up air unit. Unloaded water from hole. Pulled 5" Model "C" RBP.

Rigged up Capitan Corporation. Perforated 5" O.D. casing, from 3551' to 3697', with 14 squeeze holes. Ran 5" Model "C" packer. Acidized squeeze perfs, from 3551' to 3697', with 400 gal of 15% NEFE acid. Performed injectivity test (3551' to 3697'), at 3.75 BPM, at 1600 psi. Pulled 5" Model "C" packer.

Rigged up Capitan Corporation. Set 5" EZ-Drill retainer, at 3540'. Ran 2 3/8" O.D. tubing equipped with cementing stinger.

Cemented squeeze perfs, from 3551' to 3697', with 166 sx of API Class "C" cement. Flushed cement with 13.6 bbls of 2% KCL water, at a maximum pressure of 4300 psi, at 1.6 BPM.

Pulled out of retainer. Raised tubing 1 jt. Hooked up air unit. Unloaded water from hole. Pulled 2 3/8" O.D. tubing and cementing stinger.

Rigged up Capitan Corporation. Perforated Upper Queen, from 3017' to 3174', with (14) 0.38" x 19" holes.

Ran 2 3/8" O.D. tubing, 5" Model "C" packer, and 5" Model "C" RBP. Set 5" Model "C"

RBP, at 3198'. Spotted 650 gal of acid across and above perfs, from 3017' to 3174'. Raised and set 5" Model "C" packer, at 3000'. Acidized perfs, from 3017' to 3174' (14 holes), with an additional 2350 gal (total of 3000 gal) of 15% MCA acid and 16 ball sealers, at an average treating rate of 4.0 BPM and average treating pressure of 2700 psi. $TP_{mx} = 3300$ psi (at ballout). Pulled 5" Model "C" packer and 5" Model "C" RBP.

Ran 2 3/8" O.D. tubing. Hooked up air unit. Unloaded acid water from hole. Landed bottom of tubing at 3510'. Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" rod string. Resumed pump testing well, at 8.5 spm x 74" x 1 1/4".

Shut in casing, for pressure buildup, at 12:30 P.M., CDT, 6-24-01. 19.5-hr SICP=85 psig.

Pulled rods and pump. Raised and landed bottom of tubing, at 2958'. Installed 2 3/8" O.D. carbide blast joint and 3" heavy-duty side valves. Made up flowing wellhead assembly.

Rigged up Halliburton. Performed CO₂ foam frac down 5 1/2" x 2 3/8" casing-tubing annulus, with 165, 171 gal of gelled water and CO₂, plus a combined total of 350,000 lbs of 20/40, 10/20, and 8/16 frac sand, at an average treating rate of 25.6 BPM and average wellhead casing pressure of 2549 psi. Static wellhead tubing pressure = 1925 psig.

Left well shut in for one hour. Opened to blowdown tank, for overnight cleanup.

Removed carbide blast joint and 3" heavy-duty frac valves. Installed 3" production ball valves. Lowered 2 3/8" O.D. tubing. Tagged top of sand fill, at 3422'. Hooked up air units. Cleaned out frac sand, to PBTD of 3520'.

Raised and landed bottom of 2 3/8" O.D. tubing, at 3445' RKE (105 jts. @ 32.56'/jt + 1.1' SN + 18' MA - 3' AGL + 10' KBC = 3444.9'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" rod string, consisting of (136) 3/4" x 25' Axelson S-87 API Class "KD" rods, (1) 3/4" x 4' rod sub, and 1 1/4" x 16' polish rod. Returned well to beneficial use, on 6-27-01, as replacement Eumont producer, for adjacent Britt No. 12 Eumont well.