

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-025-06127	
Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
State Oil & Gas Lease No. A-3071	
Lease Name or Unit Agreement Name Hansen State	
Well No. 4	Pool name or Wildcat Eumont (Y-7R-Q)

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	Name of Operator Doyle Hartman
Address of Operator 500 N. Main St., Midland, TX 79701	
Well Location Unit Letter <u>H</u> : <u>1980</u> Feet From The <u>North</u> Line and <u>990</u> Feet From The <u>East</u> Line Section <u>16</u> Township <u>20S</u> Range <u>37E</u> NMPM <u>Lea</u> County	
Elevation (Show whether DF, RKB, RT, GR, etc.) 3544' GL (3555' DF)	

11

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: Repair and Alter Defective Casing ☒

¹²Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

For details of completed operations, please refer to pages 2 through 7 attached hereto.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Tricia Smith TITLE Production Analyst DATE 05-31-01

TYPE OR PRINT NAME Tricia Smith TELEPHONE NO. 915-684-4011

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE JUN 01 2001

CONDITIONS OF APPROVAL, IF ANY:

DETAILS OF COMPLETED OPERATIONS

On March 28, 2001, moved in and rigged up well service unit.

Pulled rods and tubing.

Ran 6-1/4" bit and Baker 7" casing scraper. Tagged CIBP at 3650' RKB. Pulled bit and scraper.

Ran 185.88' bottom-hole drilling assembly consisting of 6-1/4" bit and (6) 4-3/4" O.D. drill collars, to top of CIBP. Hooked up air units. Established circulation. After drilling on CIBP, for 15 minutes, slips relaxed. Pushed and drilled CIBP to 3770' (into open hole). Pulled bottom-hole drilling assembly.

Rigged up Capitan Corporation wireline truck. Set Halliburton 7" EZ-Drill Type SV retainer, at 3665' RKB.

Rigged up Schlumberger. Logged well with DS-CNL-GR-CCL log and VDCBL-GR-CCL log, from 2800' to 3664'.

Ran and set Baker 7" Model "C" RBP, at 2860'. Loaded 7" O.D. casing, with 93 bbls of 2% KCl water. Finished logging well, with DS-CNL-GR-CCL log, from 2100' to 2800', and VDCBL-GR-CCL log, from 100' to 2800'. Found top of cement, on outside of 7" O.D. casing, at 2320'.

Laid down old 2-3/8" O.D. tubing. Ran new 2-3/8" O.D., 4.7 lb/ft, J-55, EUE tubing and Baker 7" Model "C" packer. Pressure tested 7" O.D. casing, from 729' to 2860', to 500 psi. Pressure held okay. Found defective 7" O.D. casing, between 338' and 729'. Also found slow leak in 7" O.D. casing, from 0' to 8'.

Laid down 2-3/8" O.D. tubing and 4-3/4" O.D. drill collars. Covered 7" Model "C" RBP, with 2 sx of frac sand. Moved off well service unit.

Moved in backhoe. Dug 8'-deep hole around well. Rigged up welder. Cut and removed corroded and defective 10-3/4" O.D. and 7" O.D. casing. Found hard cement, on outside of 10-3/4" O.D. casing, 8' from surface.

Installed 7" O.D. x 7' tieback joint and 10-3/4" O.D. x 6.6' tieback joint. Sealed 10-3/4" x 7" casing annulus, with 10-3/4" x 7" x 0.5" welded steel seal ring. Welded 2" threaded collar to side of 10-3/4" O.D. casing, at both top and bottom of 10-3/4" O.D. tieback joint. Installed 2" riser back to surface, from bottom of 10-3/4" O.D. tieback joint.

Installed 7" slip x thread collar, at top of 7" O.D. tieback joint. Installed 3" threaded collar, on side of 7" O.D. casing, below 7" casing collar.

Installed 54" O.D. x 8' corrugated steel cellar can. Backfilled around cellar can.

Moved well service unit back onto well.

Ran 2-3/8" O.D. tubing equipped with non-operable retrieving head. Tagged top of fill, at 2820' (40' of fill). Hooked up reverse unit. Circulated rocks off of RBP, at 2860'. Rocks continued to enter wellbore and fall to bottom.

Poured 4 sx of 10/20 frac sand down 7" O.D. casing, to cover 7" Model "C" RBP.

Rigged up Halliburton. With 10-3/4" x 7" annulus open, cemented down 7" O.D. casing, with 15.0 lb/gal API Class-C cement slurry containing 3% CaCl₂, 5 lb/sx Gilsonite, and 0.25 lb/sx Flocele. After achieving cement returns, to surface, closed 10-3/4" x 7" annulus valve. Continued mixing and pumping cement, at an average cementing rate of 8 BPM and average pump pressure of 675 psi.

Flushed cement with 10 bbls of water, at a rate of 4 BPM, at 364 psi. ISIP = 203 psi.

Filled 54" O.D. x 8' corrugated steel cellar can, with 50 sx of API Class-C cement containing 3% CaCl₂.

Ran 185.88' bottom-hole drilling assembly, consisting of 6-1/4" bit and (6) 4-3/4" O.D. drill collars, to top of cement. Drilled cement, from 289' to 730'. Above 684', cement was hard.

Lowered bottom-hole drilling assembly, to top of fill, at 2811' (49' of fill). Cleaned out fill to 2858'. Pulled bottom-hole drilling assembly.

Ran non-operable retrieving head. Tagged fill at 2850'. Hooked up reverse drilling unit. Cleaned out fill, to top of Model "C" RBB, at 2860'. Smaller pieces of rock continued to enter wellbore, and fall to bottom.

Poured 4 sx of frac sand to cover 7" Model "C" RBP.

Rigged up Dowell. Cemented down 7" O.D. casing, with an additional 1500 sx of 15 lb/gal API Class-C cement containing 3% CaCl_2 , 5 lbs/sx Gilsonite, and 0.25 lbs/sx Celloflake, at an average cementing rate of 6 BPM and average pump pressure of 980 psi. Flushed cement in 8 stages, with 11 bbls of water. ISIP = 663 psi. 10-min SIP = 595 psi.

Ran 185.88' bottom-hole drilling assembly. Drilled cement, from 290' to 730'. Cement was hard, from 290' to 680', with the last 50' drilling less hard.

Lowered bottom-hole drilling assembly. Tagged fill at 2845' (15' of fill). Circulated fill off of RBP. Pulled 2-3/8" O.D. tubing and bottom-hole drilling assembly.

Ran 2-3/8" O.D. tubing and non-operable retrieving head. Cleaned out over RBP fishing neck. Pulled non-operable retrieving head.

Ran 2-3/8" O.D. tubing and operable retrieving head. Hooked up air unit. Unloaded water from hole.

Latched onto 7" Model "C" RBP. Pulled tubing and 7" Model "C" RBP.

Ran 2-3/8" O.D. tubing and 7" Model "C" packer. Set packer at 3570'. Pressure tested 7" EZ-Drill retainer, to 2000 psi. Pulled 7" Model "C" packer.

Ran 2-3/8" O.D. tubing and cementing stinger. Stung into 7" EZ-Drill retainer, at 3665'. Established injection rate, with water, of 3 BPM, at 1950 psi.

Squeeze cemented open hole, from 3700' to 3770', with 650 sx of API Class-C cement containing 2% CaCl_2 , 5 lbs/sx Gilsonite, and 0.25 lbs/sx Flocele, at an average cementing rate of 2.6 BPM, and a maximum wellhead pressure of 4120 psi. 2-min SIP = 2557 psi.

Did not displace cement below retainer. Plugged off existing Eumont perfs, by pulling out of retainer and dumping 22 bbls of cement above retainer.

Pulled 2-3/8" O.D. tubing and cementing stinger.

Ran 185.88' bottom-hole drilling assembly. Tagged cement at 3173 RKB. Loaded 7" O.D. casing, with 84 bbls of 2% KCl water. In 11.45 hrs, drilled cement, from 3173' to 3665' (top of 7" EZ-Drill retainer).

Drilled retainer and 103' of cement, from 3667' to 3770'. Drilled and pushed CIBP, from 3770' to 3845'.

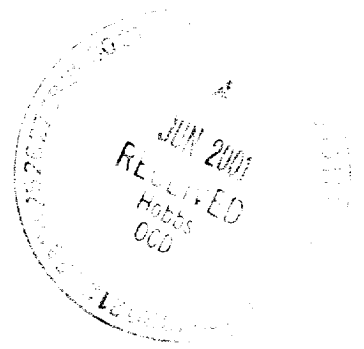
Ran 5-1/2" O.D., 14 lb/ft x 5" O.D., 15 lb/ft, J-55, ST&C combination casing string equipped with (20) Davis-Lynch 7" x 5" centralizers. Landed casing with TIW 5" Type TC226 double-valve setshoe at 3844" RKB, TIW Type C-LF landing collar at 3833', and 5-1/2" x 5" crossover at 3249'.

Mixed and pumped 325 sx of API Class-C cement containing 2% CaCl_2 , 3 lbs/sx Gilsonite, and 0.125 lbs/sx Pol-E-Flake followed by 175 sx of API Class-C cement containing 3% CaCl_2 , 3 lbs/sx Gilsonite, and 0.12 lbs/sx Pol-E-Flake.

After shutting down 3 minutes, to drop wiper plug, and wash surface lines, could not displace cement from casing.

Ran tungsten-carbide-tipped blade bit. Commenced drilling cement at 9:15 A.M., April 23, 2001. Reached landing collar, at 3833', at 5:06 P.M., April 25, 2001. Drilled 3833' of cement, in 65.67 hrs.

Rigged up Halliburton. Cemented down 7" x 5-1/2" casing annulus, with 525 sx of API Class-C cement slurry containing 3% CaCl_2 , 3 lbs/sx Gilsonite, and 0.125 lbs/sx Pol-E-Flake, at an average cementing rate of 1.9 BPM, at 1700' psi. ISIP = 671 psi. 1-min SIP = 596 psi.



Rigged up Schlumberger. Ran temperature log and VDCBL-GR-CCL log. Found top of first cement job, at 1020', and bottom of second (annular) cement job, at 688'.

Perforated 5" O.D. casing, from 3783' to 3808', with (9) 0.38" x 19" holes. Broke down perfs, with 150 gal of 15% MCA acid. Set Halliburton 5" EZ-Drill retainer, at 3777'. Ran 2-3/8" O.D. tubing and cementing stinger. Squeeze cemented with 400 sx of API Class-C cement. After mixing and pumping cement, flushed and hesitation-squeezed, with 12 bbls, to a final shut-in pressure of 4400 psi. Pumped initial 3 bbls of flush, at 1 BPM, at 1415 psi.

Rigged up Schlumberger. Ran temperature log.

Rigged up Capitan Corporation. Re-perforated Eumont (Queen), with (29) 0.38" x 19" holes, with one shot each at

3370	3410	3436	3474	3515
3372	3417	3448	3476	3524
3378	3422	3450	3479	3526
3380	3424	3458	3493	3530
3404	3428	3463	3494	3537
3408	3430	3466	3499	

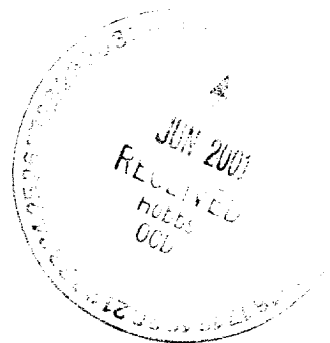
Ran 2-3/8" O.D. tubing and Baker 5" Model "C" packer. Spotted 275 gal of 15% MCA acid across perfs. Raised packer. Acidized perfs, with an additional 5250 gal of 15% MCA acid and 45 ball sealers, at an average treating rate of 5 BPM and average treating pressure of 2130 psi. $Tp_{mx} = 2600$ psi (at ballout). $Tp_{mn} = 1902$ psi.

ISIP = 670 psi

2-min SIP = 134 psi

4-min SIP = 0 psi

Knocked off balls. Pulled tubing and packer.



Page 7 of 7
NMOCD Form C-103 dated 5-31-01
Doyle Hartman
Hansen State No. 4
H-16-20S-37E
API No. 30-025-06127

Ran and landed 2-3/8" O.D. tubing, at 3679' RKB. Ran 2" x 1-1/4" x 12' RHAC insert pump and 3/4" rod string. Pump tested well, from April 30, 2001 to May 6, 2001.

Pulled rods and pump. Landed tubing at 3225'. Prepared well for frac. 22.17-hr SIP = 44 psig.

Performed CO₂ foam frac down casing-tubing annulus, with 206,428 gal of foam and a total of 400,000 lbs of 20/40, 10/20, and 8/16 frac sand, at an average treating rate of 31 BPM and average WHTP of 2772 psi.

Flowed well to blowdown tank, for 9.5 hrs.

Lowered 2-3/8" O.D. tubing. Tagged sand fill at 3613' RKB. Hooked up air unit. Cleaned out wellbore, to 3773 RKB.

Raised bottom of tubing, to 3679' RKB (112 jts @ 32.16'/jt + 1.1 SN + 18' MA - 3' AGL + 11' KBC = 3679.42'). Ran 2" x 1-1/4" x 12' RHAC insert pump and 3/4" rod string consisting of (145) 3/4" x 25' rods, (2) 3/4" x 8' rod subs, (1) 3/4" x 4' rod sub, 1-1/4" x 16' polish rod. Commenced pump testing and cleaning up well, at 4:00 P.M., CDT, May 9, 2001, at 8.4 x 64 x 1-1/4.

