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Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease
State ☒ Fee ☐

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

b. TYPE OF COMPLETION

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER Water Supply Well

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name
Humphrey

9. Well No.
10 WSW

10. Field and Pool, or Wildcat
Langlie Mattix Grayburg San Andres

2. Name of Operator
Mobil Oil Corporation

3. Address of Operator
Box 633, Midland, Texas

4. Location of Well

UNIT LETTER F LOCATED 2420 FEET FROM THE North LINE AND 2200 FEET FROM

THE West LINE OF SEC. 3 TWP. 25-S RGE. 37-E NMPM

12. County
Lea

15. Date Spudded 8-9-69 16. Date T.D. Reached 8-25-69 17. Date Compl. (Ready to Prod.) 9-17-69 18. Elevations (DF, RKB, RT, GR, etc.) 3146 Gr.

19. Elev. Casinghead

20. Total Depth 4800 21. Plug Back T.D. - 22. If Multiple Compl., How Many - 23. Intervals Drilled By Rotary Tools Cable Tools

24. Producing Interval(s), of this completion - Top, Bottom, Name
3844-4739 Grayburg San Andres

25. Was Directional Survey Made
Yes

26. Type Electric and Other Logs Run
Gr-aconstic and caliper logs

27. Was Well Cored
No

| 28. CASING RECORD (Report all strings set in well) | | | | | |
|----------------------------------------------------|----------------|-----------|-----------|----------------------|---------------|
| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
| 13 3/8" OD | 48# | 1073 | 17 1/2" | 1200 SKs | - |
| 9 5/8" OD | 36# 7 40# | 4800 | 12 1/4" | 2275 SKs in 2 stages | - |
| | | | | | |
| | | | | | |

| 29. LINER RECORD | | | | 30. TUBING RECORD | | |
|------------------|-----|--------|--------------|-------------------|------|-----------|
| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN | SIZE | DEPTH SET |
| | | | | | | |
| | | | | | | |
| | | | | | | |

31. Perforation Record (Interval, size and number)
3844-4739' 895' overall 186 Total Holes

| 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. | |
|------------------------------------------------|----------------------------------------------------|
| DEPTH INTERVAL | AMOUNT AND KIND MATERIAL USED |
| <u>3844-4739'</u> | <u>10,000 gals. 15% NE acid + 300 RCNB Sealers</u> |
| | |
| | |

33. Water Supply Well PRODUCTION

Date First Production Production Method (Flowing, gas lift, pumping - Size and type pump) Well Status (Prod. or Shut-in)

Date of Test Hours Tested Choke Size Prod'n. For Test Period Oil - Bbl. Gas - MCF Water - Bbl. Gas - Oil Ratio

Flow Tubing Press. Casing Pressure Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API (Corr.)

34. Disposition of Gas (Sold, used for fuel, vented, etc.) Test Witnessed By

35. List of Attachments

I-Summary of Operation

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED J. McDaniel TITLE Authorized Agent DATE 10-2-69

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

| | | | |
|--------------------------|------------------------|-----------------------------|------------------------|
| T. Anhy _____ | T. Canyon _____ | T. Ojo Alamo _____ | T. Penn. "B" _____ |
| T. Salt _____ | T. Strawn _____ | T. Kirtland-Fruitland _____ | T. Penn. "C" _____ |
| B. Salt _____ | T. Atoka _____ | T. Pictured Cliffs _____ | T. Penn. "D" _____ |
| T. Yates _____ | T. Miss _____ | T. Cliff House _____ | T. Leadville _____ |
| T. 7 Rivers _____ | T. Devonian _____ | T. Menefee _____ | T. Madison _____ |
| T. Queen _____ | T. Silurian _____ | T. Point Lookout _____ | T. Elbert _____ |
| T. Grayburg _____ | T. Montoya _____ | T. Mancos _____ | T. McCracken _____ |
| T. San Andres _____ | T. Simpson _____ | T. Gallup _____ | T. Ignacio Qtzte _____ |
| T. Glorieta _____ | T. McKee _____ | Base Greenhorn _____ | T. Granite _____ |
| T. Paddock _____ | T. Ellenburger _____ | T. Dakota _____ | T. _____ |
| T. Blinberry _____ | T. Gr. Wash _____ | T. Morrison _____ | T. _____ |
| T. Tubb _____ | T. Granite _____ | T. Todilto _____ | T. _____ |
| T. Drinkard _____ | T. Delaware Sand _____ | T. Entrada _____ | T. _____ |
| T. Abo _____ | T. Bone Springs _____ | T. Wingate _____ | T. _____ |
| T. Wolfcamp _____ | T. _____ | T. Chinle _____ | T. _____ |
| T. Penn. _____ | T. _____ | T. Permian _____ | T. _____ |
| T. Cisco (Bough C) _____ | T. _____ | T. Penn. "A" _____ | T. _____ |

FORMATION RECORD (Attach additional sheets if necessary)

| From | To | Thickness in Feet | Formation | From | To | Thickness in Feet | Formation |
|------|------|----------------------|--------------------------|------|----|----------------------|-----------|
| 0 | 537 | | Surface Rock and Red Bed | | | | |
| 587 | 663 | | Anhy. and Sand | | | | |
| 663 | 1005 | | Red Beds and Anhy. | | | | |
| 1005 | 1580 | | Anhy. and Salt Strks. | | | | |
| 1580 | 1363 | | Salt and Anhy. | | | | |
| 1863 | 2034 | | Anhy., Salt and Gyp. | | | | |
| 2034 | 2640 | | Anhy., and Salt | | | | |
| 2640 | 2742 | | Anhy. and Lime | | | | |
| 2742 | 3430 | | Lime | | | | |
| 3430 | 4055 | | Lime | | | | |
| 4055 | 4546 | | Lime | | | | |
| 4546 | 4800 | | Lime | | | | |

OCT 3 1 22 1969
DAILY DRILLING REPORT

HUMPHREY "A" #10 WSW

HUMPHREY "A" #10 WSW, 2300' FNL & 2400' FWL Sec 3, T-25, R-37, Lea Co, NM.

OBJECTIVE: Drill and complete water supply well in Grayburg-San Andres. AFE 9283 - Mobil Intr 100% - Est Cost \$78,000.

8/8/69 Loc and road compl, C. A. Nunn Drlg Co, prep to MIT today.

HUMPHRY "A" #10 WSW

8/9 95% RU.

8/11 (2) 740 drlg red rocks, 17½" hole, 1° @ 587. Native mud.
C. A. Nunn Drlg Co spud in 11:00 a.m. 8/9/69.

HUMPHRY "A" #10 WSW

8/12 (3) 1073 ND anhy, 17½" hole, 1° @ 847. Native Mud.
Prep to run 13-3/8 csg.

HUMPHREY "A" #10 WSW

8/13 (4) 1073 ND, WOC on 13-3/8 csg, ran 35 jts 1073' 13-3/8 J-55 48# ST&C csg to 1073, Howco cemented on bottom @ 1073' w/ 1000x Class H cement w/ 8% gel + 200x Class H Neat cement, all cement contained 2% CaCl, PD @ 2:00 p.m. 8/12/69, WOC past 18 hrs, prep to drill 12¼" hole.

HUMPHREY "A" #10 WSW

8/14 (5) 1830 drlg salt & anhy, 12¼" hole, 1° @ 1268; 3/4 @ 1503; 1° @ 1713. Br wtr.
Tested 13-3/8 csg & BOP's w/ 750#/ok.

HUMPHREY "A" #10

8/15 (6) 2180 drlg salt & anhy, 12¼" hole, ½ @ 2080. Br wtr.

HUMPHREY "A" #10

8/16 (7) 2714 drlg salt & anhy, 12¼" hole, 3/4 @ 2411, 1° @ 2653. Br wtr.

8/18 (9) 3230 drlg lm, 12¼" hole, 2¼ @ 2833; 2¼ @ 3077. Br wtr.

HUMPHREY "A" #10

8/19 (10) 3408 drlg lm, 12¼" hole, 2½ @ 3387. Br wtr.

HUMPHREY "A" #10 WSW

8/20 (11) 3570 drlg lm, 12¼" hole, 2° @ 3503. Br wtr.

HUMPHREY "A" #10

8/21 (12) 3752 drlg lm, 12¼" hole, 2° @ 3752. Br wtr.

HUMPHREY "A" #10

8/22 (13) 3914 drlg lm, 12¼" hole, NND. Br Wtr.

HUMPHREY "A" #10 WSW

8/23 (14) 4149 drlg lm, 12¼" hole, 1° @ 3988. Br Wtr.

8/25 (16) 4687 drlg lm, 12¼" hole, 1½ @ 4262, 1½ @ 4502. 10.0-33 Vis. 1% oil.

OCT 1 1969

- 8/26 HUMPHREY "A" #10
(17) 4800 TD 1m, 12 $\frac{1}{4}$ " hole, 1 $\frac{1}{2}$ @ 4738.
Circ 1 $\frac{1}{2}$ hrs, POH, prep to run OH logs. 10.0-31 vis, 1% oil.
- 8/27 HUMPHREY "A" #10 WSW
4800 TD 1m, 12 $\frac{1}{4}$ " hole. 10.0-32 vis.
Dresser-Atlas Co ran GR-Acoustic & Caliper log to 4787 depth reached 4797
in 5 hrs, then Worth Well ran Caliper from 1073 to 4787, ran bit to 4800, circ
2 hrs, P & LD DP & DC's, RU, now running 9-5/8 csg, 50 jts in hole.
- 8/28 HUMPHREY "A" #10 WSW
4800 TD, WOC 9-5/8 csg, finish running 9-5/8 csg total of 145 jts, 815' of
40# J-55 + 3985' 36# J-55 8rd cemented on bottom by Howco, FC @ 4767, DV Tool
@ 3796, cemented 1st stage w/ 375x Class C cement containing $\frac{1}{4}$ # flocele + 5#
gilsonite, PD @ 12:30 p.m. 8/27/69, circ out 50x, circ 5 hrs thru DV Tool @
3796, then cemented 2nd stage w/ 1800x Class C 8% gel cement containing $\frac{1}{4}$ #
flocele + 5# gilsonite + 100x Class C Neat, PD @ 9:30 p.m. 8/27/69, circ
approx 100x cement, nipple up 9-5/8 csg, Rel C. A. Nunn Drlg Co rig @ 12:00
midnite 8/27/69, prep to MORT.
- 8/29 HUMPHREY "A" #10 WSW, 4800 TD.
MORT.
- 8/30, 8/31,
9/1, & 9/2 MORT.
- 9/3 HUMPHREY "A" #10 WSW, 4800 TD.
MORT - prep to set Guy line anchors.
- 9/4 HUMPHREY "A" #10 WSW, 4800 TD.
Press on 9-5/8 csg 1200#/30 min/held ok, prep to RU Jake Miller Well Serv
cable tool rig.
- 9/5 HUMPHREY "A" #10 WSW, 4800 TD.
RU Jake Miller cable tool rig, DO DV collar @ 3796/6 hrs, ran bailer to 4767,
prep to perf.
- 9/6 HUMPHREY "A" #10 WSW, 4800 TD.
Schl ran GR Corr log 4735-3000, then perf Grayburg @ 3844-60; 3921-24; 3930-33;
3942-50; 3954-60; 3964-68; 3976-81; 3991-96; 4012-14; 4037-48; 4096-4102; 4113-18;
4127-36; 4142-44; 4148-54; 4159-63; 4171-80; 4206-14; 4218-22; 4230-36; 4240-42;
4246-48; 4256-64; 4296-98; 4366-72; 4219-21; 4434-38; 4456-58; 4468-74; 4560-64;
4568-70; 4576-78; 4582-84; 4590-92; 4596-98; 4626-28; 4636-40; 4642-46; 4726-30;
& 4737-39, 895' OA, total 186 holes, job compl 3:30 p.m. 9/5/69, Cardinal Chem
Co acidized down 9-5/8 csg w/ 10,000 gals 15% NE acid + 300 RCNB sealers, flush
366 bbls fr wtr, BDCP 1500, TCP 3500, AIR 3.9 BPM, ISDCP 3200, 1 min SICP 600,
15 min SICP 500, job compl 8:30 p.m. 9/5/69, SI 1 hr CP 100, fl back 190 BLW/3 $\frac{1}{2}$
hrs, then csg sw 130 BLW/3 $\frac{1}{2}$ hrs, FL 1050, L hr sw 60 BF. - 46 BLW + 240 BAW to rec
- 9/7 4800 TD, 4742 PBTD, Grayburg (3844-4739) OA.
Csg sw 46 BLW + 240 BAW + 264 BFW/21 hrs, FL 1300, L hr sw 30 BF.

S 60 BW/2 hrs, FL 1300 (holding), S 30 bbls L hr, RD & Rel Cable Tool rig @ 4:00 p.m. 9/7/69.

9/9 HUMPHREY "A" #10 WSW, 4800 TD, 4742 PBTB, Grayburg (3844-4739) OA.
Static fluid level @ 874, prep to acidize.

9/10 HUMPHREY "A" #10 WSW, 4800 TD, 4742 PBTB, Graybur (3844-4739) OA.
MIRU DA&S Well Serv DD unit, inst'l BOP, ran Baker 9-5/8 ret BP & FB pkr on 2-7/8 tbg, set BP @ 4750, set pkr @ 4510, Cardinal Chem Co acidized perfs 4560-4739 w/ 2000 gals 28% NE acid, TTP 4000 to 3500, rate 15.0 BPM, flushed w/ 46 bbls fresh wtr, communicated, set BP @ 4510, set pkr @ 4330, pump 60 bbls fresh wtr, comm, reset pkr @ 4070, pumped 23 BW, comm, reset pkr @ 3890, pumped 20 BW, comm, reset pkr @ 3800, then Cardinal acidized perfs 3844-4474 w/ 8000 gals 28% NE acid, flushed w/ 300 bbls fresh wtr, TTP 3500-4500-4000, rate 17.0 BPM, ISIP 200, 4 min on vac, job compl @ 6:45 p.m. 9/9/69, all flush wtr contained 2 gals/1000 gals Adomal + 5# friction reducer, acid contained 5# friction reducer /1000 gals.

9/11 HUMPHREY "A" #10 WSW, 4800 TD, 4742 PBTB, Grayburg (3844-4739).
Ret BP, P & LD 2-7/8 tbg, pkr & BP, FL @ 650, RD & Rel DA&S Well Serv unit @ 4:00 p.m. 9/10/69. WO test equipment.

12 HUMPHREY "A" #10 WSW, 4800 TD.
WO test equipment.

9/13 HUMPHREY "A" #10 WSW, 4800 TD.
WO test equipment.

9/15 MIRU West Texas Well Serv DD unit. SD for nite. Prep to run test pump & 5½ csg.

9/16 HUMPHREY "A" #10 WSW, 4800 TD.
WO Reda pump & service man 7 hrs, RU, ran Reda pump on 4 jts 5½ csg. SD for nite.

9/17 HUMPHREY "A" #10 WSW, 4800 TD.
Finish running Reda pump on 111 jts 15.50# J55 8rd used 5½ csg, bottom of pump @ 3764, top of pump @ 3697, check valve @ 3605, started well to pumping @ 5:30 p.m. 9/16/69. Reda pump motor 7.38 OD x 4.13 #62 A, 260 HP, 2300 volts, 26.6 long. Pump 6.5 OD #22443 #39I250 14.5' long.
Pump 6.5 OD #13586 #25I250 20.0' long.
Protector 7.38 OD -348, Type 66, 6.1' long, overall length 67.2.

HUMPHREY "A" #10 WSW (Cont'd from previous page)

| Time | FL | TP | Remarks |
|------------|------|----|--------------------------------------------------------------------------------|
| 10:00 a.m. | 1406 | 50 | Gas decreasing. |
| 10:30 a.m. | 1444 | 46 | - |
| 11:00 a.m. | 1463 | 70 | Well choked. |
| 11:30 a.m. | 1463 | 70 | Well choked. |
| 1:00 p.m. | 1520 | 37 | Well was opened up - not choked |
| 1:30 p.m. | 1558 | 34 | Ph of wtr 6.2, mild gas volume w/ wtr. |
| 2:00 p.m. | 1520 | 32 | - |
| 2:10 p.m. | - | - | SI, rearrange flow line for test purposes. |
| 3:40 p.m. | 722 | - | Started well to pumping |
| 4:10 p.m. | - | - | Lightening shut Reda pump down. |
| 4:30 p.m. | - | - | Restarted pump, pumped for 10 min and SD due to weather, rain, hail, and wind. |

Gas Vol in wtr at start of pumping was very strong, vol decreased considerably during pumping period, prep to test well thru Hallib master meter and spot check vol by pumping into a test tank, left SI overnite.

HUMPHREY "A" #10 WSW, 4800 TD, Grayburg (3844-4739).

9/18 Testing well.

9/18 Static FL on 9/17/69 was 722. Started well to pumping. Pumped approx 1 hr FL @ 912. SD. Layed flow line to pit, then pumped for 1½ hrs, FL @ 1250, had lots of gas w/ wtr, SI for 14 hrs, static FL 799, started well to pumping and obtained the following data:

| <u>Time</u> | <u>FL</u> | <u>TP</u> | <u>Remarks</u> |
|-------------|-----------|-----------|--------------------------|
| 8:00 a.m. | 799 | 0 | Started well to pumping. |
| 8:30 a.m. | 1292 | 75 | Strong sh of gas w/ wtr. |
| 9:00 a.m. | 1292 | 62 | - |
| 9:30 a.m. | 1368 | 54 | - |

HUMPHREY "A" #10 WSW, 4800 TD.

9/19/69 Opened well up @ 7:45 a.m. 9/18/69 and obtained following test data:

| <u>Time</u> | <u>FL</u> | <u>TP</u> | <u>Rate</u> | <u>Remarks</u> |
|-------------|-----------|-----------|----------------------|----------------------------------------------------------------------|
| 7:45 a.m. | 741 | 0 | - | Well had been SI 14 hrs. |
| 8:30 | 1330 | 14 | - | Flowing to pit. |
| 9:00 | 1368 | 12 | - | Flowing to pit. |
| 9:30 | 1444 | 10 | - | Flowing to pit. |
| 10:00 | 1520 | 10 | - | Flowing to pit. |
| 10:30 | 1520 | 40 | 310 GPM (10,500 BPD) | Pumping thru Hallib meter. |
| 11:00 | 1501 | 40 | 310 GPM (10,500 BPD) | Pumping thru Hallib meter. |
| 11:30 | 1482 | 40 | 308 GPM | Pumping thru Hallib meter. |
| 12:00 | 1444 | 40 | 308 GPM | Pumping thru Hallib meter. |
| 12:30 p.m. | 1501 | 40 | 309 GPM | Pumping thru Hallib meter. |
| 1:00 | 1520 | 40 | - | Switched to pit to stabilize and then turn to test tank. |
| 1:30 | 1539 | 40 | 300 GPM (10,300 BPD) | Tested into test tank for 50 min then switched back to Hallib meter. |
| 2:00 | 1520 | 50 | 310 GPM (10,500 BPD) | Thru Hallib meter. |
| 2:30 | 1482 | 50 | 310 GPM | Thru Hallib meter. |
| 3:00 | 1482 | 50 | 309 GPM | Thru Hallib meter. |

Shut well in, testing completed, to redesign Reda pump size and setting depth for permanent installation.

DROP FROM REPORT until permanent installation is made.