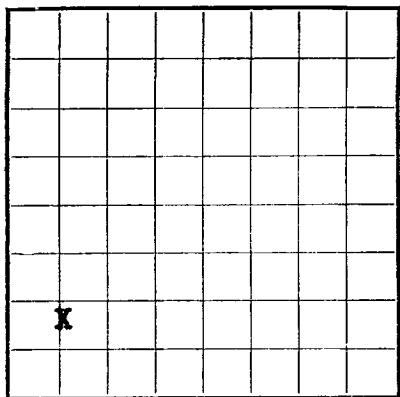


Santa Fe  
U. S. LAND OFFICE  
SERIAL NUMBER 678039  
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SURVEY  
MEXICO

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico  
Lessor or Tract Barnes Field Blanco State New Mexico  
Well No. 9 Sec. 13 T. 32N R. 11W Meridian NMCM County San Juan  
Location 1100 ft. N. of S Line and 990 ft. E. of W Line of Section 13 Elevation 6231'  
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.  
Signed E. S. Oluech  
Date March 3, 1955 Title Petroleum Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling January 23, 19 55 Finished drilling February 15, 19 55

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2952 to 3028 (G) No. 4, from 5218 to 5420 (G)  
No. 2, from 4800 to 4893 (G) No. 5, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from 4893 to 5218 (G) No. 6, from \_\_\_\_\_ to \_\_\_\_\_  
**IMPORTANT WATER SANDS**  
No. 1, from \_\_\_\_\_ to \_\_\_\_\_ No. 3, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 4, from \_\_\_\_\_ to \_\_\_\_\_

CASING RECORD

| Size casing | Weight per foot | Threads per inch | Make       | Amount | Kind of shoe | Cut and pulled from | Perforated |     | Purpose    |
|-------------|-----------------|------------------|------------|--------|--------------|---------------------|------------|-----|------------|
|             |                 |                  |            |        |              |                     | From—      | To— |            |
| 9 5/8       | 36#             | 8 RD             | J-55       | 162'   | Howco        |                     |            |     | Surface    |
| 7 1/2       | 29#             | 8 RD             | J-55       | 148'   | Howco        |                     |            |     | Prod. Csg. |
| 7           | 24#             | 8 RD             | J-55       | 138'   | Howco        |                     |            |     | Prod. Csg. |
| 2"          | 4.7#            | 8 RD             | Youngstown | 138'   |              |                     |            |     | Prod. Tbg. |

MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used  | Mud gravity | Amount of mud used |
|-------------|-----------|------------------------|--------------|-------------|--------------------|
| 9 5/8"      | 174'      | 125                    | Circulated   |             |                    |
| 7"          | 4760'     | 500                    | Single Stage |             |                    |

PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

SHOOTING RECORD

| Size | Shell used | Explosive used   | Quantity | Date | Depth shot | Depth cleaned out |
|------|------------|------------------|----------|------|------------|-------------------|
|      |            | See Well History |          |      |            |                   |

TOOLS USED

Rotary tools were used from 0 feet to 4760' feet, and from 4760' feet to 5420' feet  
Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

DATES

February 16, 19 55 Put to producing \_\_\_\_\_, 19 \_\_\_\_\_

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_% was oil; \_\_\_\_\_% emulsion; \_\_\_\_\_% water; and \_\_\_\_\_% sediment. Gravity, °Bé. \_\_\_\_\_

If gas well, cu. ft. per 24 hours 7158 MCF/D Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

Rock pressure, lbs. per sq. in. 1020

EMPLOYEES

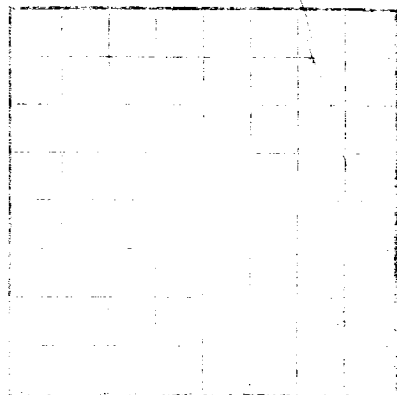
\_\_\_\_\_, Driller \_\_\_\_\_, Driller  
\_\_\_\_\_, Driller \_\_\_\_\_, Driller

FORMATION RECORD

| FROM— | TO—  | TOTAL FEET | FORMATION                                                                       |
|-------|------|------------|---------------------------------------------------------------------------------|
| 0     | 725  | 725        | Tan cr-grn ss w/thin sh breaks.                                                 |
| 725   | 1400 | 675        | Variegated sh w/thin ss breaks.                                                 |
| 1400  | 2202 | 802        | Tan to gry cr-grn ss interbedded w/gry sh.                                      |
| 2202  | 2265 | 63         | Ojo Alamo ss. White cr-grn s.                                                   |
| 2265  | 2475 | 210        | Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.                      |
| 2475  | 2952 | 477        | Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss. |
| 2952  | 3028 | 76         | Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss.                |
| 3028  | 4800 | 1772       | Lewis form. Gry to white dense sh w/silty to shaly ss breaks.                   |
| 4800  | 4893 | 93         | Cliff House ss. Gry, fine-grn, dense sil ss.                                    |
| 4893  | 5218 | 325        | Manefee form. Gry, fine-grn s, carb sh and coal                                 |
| 5218  | 5420 | 202        | Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.                 |

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
UNITED STATES



It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

February 13, 1925. Total depth 4890'. Set Baker in casing at 4690'. Treated cliff house formation from 4760' - 4890' with 16,000 gallons #2 diesel oil with 13,500# sand. Injection rate 8.5 bbls./min. Breakdown pressure 1250 psi. Maximum pressure 1500 psi. Flushed with 1900 gallons. Natural gas 200 MCF/D.

February 15, 1925. Total depth 5420'. Treated Point Lookout formation with 13,950 gallons #2 diesel oil with 14,800# sand. Injection rate 10.4 bbls./min. Breakdown pressure 900 psi. Maximum pressure 1300 psi. Natural gas 500 MCF/D. Treated interval 5216' - 5420'.

HISTORY OF OIL OR GAS WELL

| FROM- | TO-   | TOTAL FEET | FORMATION   |
|-------|-------|------------|-------------|
| 4890' | 4760' | 130'       | CLIFF HOUSE |
| 4760' | 4690' | 70'        | CLIFF HOUSE |
| 4690' | 4600' | 90'        | CLIFF HOUSE |
| 4600' | 4500' | 100'       | CLIFF HOUSE |
| 4500' | 4400' | 100'       | CLIFF HOUSE |
| 4400' | 4300' | 100'       | CLIFF HOUSE |
| 4300' | 4200' | 100'       | CLIFF HOUSE |
| 4200' | 4100' | 100'       | CLIFF HOUSE |
| 4100' | 4000' | 100'       | CLIFF HOUSE |
| 4000' | 3900' | 100'       | CLIFF HOUSE |
| 3900' | 3800' | 100'       | CLIFF HOUSE |
| 3800' | 3700' | 100'       | CLIFF HOUSE |
| 3700' | 3600' | 100'       | CLIFF HOUSE |
| 3600' | 3500' | 100'       | CLIFF HOUSE |
| 3500' | 3400' | 100'       | CLIFF HOUSE |
| 3400' | 3300' | 100'       | CLIFF HOUSE |
| 3300' | 3200' | 100'       | CLIFF HOUSE |
| 3200' | 3100' | 100'       | CLIFF HOUSE |
| 3100' | 3000' | 100'       | CLIFF HOUSE |
| 3000' | 2900' | 100'       | CLIFF HOUSE |
| 2900' | 2800' | 100'       | CLIFF HOUSE |
| 2800' | 2700' | 100'       | CLIFF HOUSE |
| 2700' | 2600' | 100'       | CLIFF HOUSE |
| 2600' | 2500' | 100'       | CLIFF HOUSE |
| 2500' | 2400' | 100'       | CLIFF HOUSE |
| 2400' | 2300' | 100'       | CLIFF HOUSE |
| 2300' | 2200' | 100'       | CLIFF HOUSE |
| 2200' | 2100' | 100'       | CLIFF HOUSE |
| 2100' | 2000' | 100'       | CLIFF HOUSE |
| 2000' | 1900' | 100'       | CLIFF HOUSE |
| 1900' | 1800' | 100'       | CLIFF HOUSE |
| 1800' | 1700' | 100'       | CLIFF HOUSE |
| 1700' | 1600' | 100'       | CLIFF HOUSE |
| 1600' | 1500' | 100'       | CLIFF HOUSE |
| 1500' | 1400' | 100'       | CLIFF HOUSE |
| 1400' | 1300' | 100'       | CLIFF HOUSE |
| 1300' | 1200' | 100'       | CLIFF HOUSE |
| 1200' | 1100' | 100'       | CLIFF HOUSE |
| 1100' | 1000' | 100'       | CLIFF HOUSE |
| 1000' | 900'  | 100'       | CLIFF HOUSE |
| 900'  | 800'  | 100'       | CLIFF HOUSE |
| 800'  | 700'  | 100'       | CLIFF HOUSE |
| 700'  | 600'  | 100'       | CLIFF HOUSE |
| 600'  | 500'  | 100'       | CLIFF HOUSE |
| 500'  | 400'  | 100'       | CLIFF HOUSE |
| 400'  | 300'  | 100'       | CLIFF HOUSE |
| 300'  | 200'  | 100'       | CLIFF HOUSE |
| 200'  | 100'  | 100'       | CLIFF HOUSE |
| 100'  | 0'    | 100'       | CLIFF HOUSE |