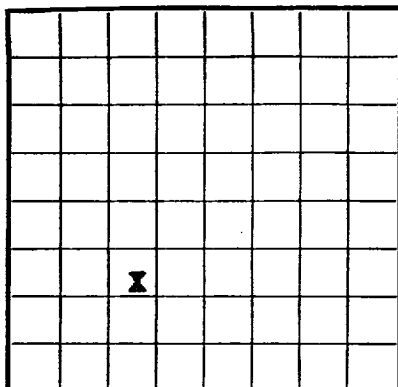




LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYU. S. LAND OFFICE Santa FeSERIAL NUMBER 078095

LEASE OR PERMIT TO PROSPECT

## LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico  
Lessor or Tract Case Field Basin Dakota State New Mexico  
Well No. 9 Sec. 8 T. 31 R. 11 Meridian N.M.P.M. County San Juan  
Location 1680 ft. N. of S Line and 1520 ft. E. of W Line of Section 8 Elevation 6147  
(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 ORIGINAL SIGNED A.M. SMITHDate September 14, 1961 Title Petroleum Engineer

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

Commenced drilling 7-29, 19 61 Finished drilling 8-10-61, 19 61

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 7109 to 7248 (G) No. 4, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from 7248 to 7466 (G) No. 5, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from \_\_\_\_\_ to \_\_\_\_\_ 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— |         |
| 10 3/4"     | 22.75           | 8 rd             | J-55 | 220    | circulated   |                     |            |     |         |
| 7 5/8"      | 20.02           | 8 rd             | J-55 | 290    | 1 stage      |                     |            |     |         |
| 5 1/2"      | 17.15           | 8 rd             | J-55 | 470    | 1 stage      |                     |            |     |         |
| 4"          | 11.34           | 8 rd             | J-55 | 50     | 1 stage      |                     |            |     |         |
| 2 1/16"     | 2.65            | 8 rd             | J-55 | 367    | Baker        |                     |            |     |         |
| 2 3/8"      | 4.7             | 8 rd             | J-55 | 6896   | Baker        |                     |            |     |         |

## MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used | Mud gravity | Amount of mud used |
|-------------|-----------|------------------------|-------------|-------------|--------------------|
| 10 3/4"     | 298       | 220                    | circulated  |             |                    |
| 7 5/8"      | 2902      | 290                    | 1 stage     |             |                    |
| 5 1/2"      | 7084      | 470                    | 1 stage     |             |                    |
| 4"          | 7460-6996 | 50                     | 1 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 |
|----------------------------|------------|-------------------------------|-------------|----------------|---------------|-------------------|
| 7170-78; 7196-7202;        |            | Frac Gran. w/60,620 gal water | 60,000# sd. | IR 40.4 BPM.   | Max pr 3700#. |                   |
| 7250-56; 7252-68; 7278-84; |            | BDP 500# tr pr                | 3300-3700#. |                |               |                   |
| 7372-78; 7382-88;          |            | Frac Bak w/56,400 gal wtr.    | 52,500# sd. | F1 w/1900 gal. | IR 21.8 BPM.  |                   |
| 7402-08; 7416-22;          |            | Max pr 3800#.                 | BDP 1900#.  | tr pr 3600#.   |               |                   |

Rotary tools were used from 0 feet to 2900 feet, and from 2900 feet to 7466 feet  
Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

Put to producing 8-23, 19 61

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 1,687,000 Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_Rock pressure, lbs. per sq. in. 2075 A.O.F. 1810 MCF/D

## EMPLOYEES

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

## FORMATION RECORD

| FROM— | TO—  | TOTAL FEET | FORMATION                                                                                               |
|-------|------|------------|---------------------------------------------------------------------------------------------------------|
| 0     | 4468 | 4468       | Tan to gry wr-grn ss interbedded w/gry sh.                                                              |
| 4468  | 4588 | 120        | Cliff Houses. Gry, fine-grn, dense sil ss.                                                              |
| 4588  | 4989 | 401        | Manefee form. Gry, fine-grn s, carb sh & coal.                                                          |
| 4989  | 5167 | 178        | Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.                                         |
| 5167  | 6392 | 1225       | Mancos form. Gry carb sh.                                                                               |
| 6392  | 7054 | 662        | Gallup form. Lt gry to brn calc carb micac glaucc very fine gry ss w/irreg interbed sh.                 |
| 7054  | 7109 | 55         | Greenhorn form. Highly calc gry sh w/thin lmst.                                                         |
| 7109  | 7248 | 139        | Graneros form. Lk gry sh, fossil & carb w/prite incl.                                                   |
| 7248  | 7466 | 218        | Dakota form. Lt to dk gry foss carb sl calc sl silty ss w/prite incl thin sh bands clay & shale breaks. |
| FROM  | TO   | TOTAL FEET | FORMATION                                                                                               |

FORMATION RECORD—Continued

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

[illegible]

LOCATE WELL CORRECTLY

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.

Date September 14, 1961 Title Petrology Engineer Signed \_\_\_\_\_  
Official Signature and Title \_\_\_\_\_

Commenced drilling 7-29-19 19 61 Finished drilling 8-10-61 19 61

**OIL OR GAS SANDS OR ZONES**

(D)  $\frac{1}{2}$  and  $\frac{1}{3}$

|             |      |    |          |             |    |
|-------------|------|----|----------|-------------|----|
| No. 1, from | Y509 | to | Y548 (D) | No. 4, from | to |
| No. 2, from | Y547 | to | Y509 (D) | No. 5, from | to |
| No. 3, from |      | to |          | No. 6, from | to |

## IMPORTANT WATER SANDS

No. 1, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from \_\_\_\_\_ to \_\_\_\_\_  
No. 4, from \_\_\_\_\_ to \_\_\_\_\_

## CASING RECORD

[illegible]

**MUDDING AND CEMENTING RECORD**

| Size<br>cutting | Where set | Number sacks of cement | Method used | Mud gravity | Amount to mud used |
|-----------------|-----------|------------------------|-------------|-------------|--------------------|
| 3/4"            | 208       | 220                    | circulated  |             |                    |
| 1 1/8"          | 202       | 220                    | blow        |             |                    |
| 1 3/8"          | 100       | 410                    | blow        |             |                    |
| 1 3/4"          | 1400-2000 | 20                     | blow        |             |                    |

## PLUGS AND ADAPTERS

| Adapters—Material     | Size | Length | Depth set |
|-----------------------|------|--------|-----------|
| Heaving plug—Material |      |        |           |

## SHOOTING RECORD

| Line             | Shell used | Explosive used | Quantity    | Date | Depth shot | Depth cleaned out |
|------------------|------------|----------------|-------------|------|------------|-------------------|
| 1405-08: 415-25  |            | Red in 300#    | Red in 300# |      |            |                   |
| 1375-18: 1305-88 |            | Red in 300#    | Red in 300# |      |            |                   |
| 1250-23: 1255-88 |            | Red in 300#    | Red in 300# |      |            |                   |
| 1110-18: 1115-88 |            | Red in 300#    | Red in 300# |      |            |                   |

|                             |   |         |     |                |     |         |     |      |
|-----------------------------|---|---------|-----|----------------|-----|---------|-----|------|
| Rotary tools were used from | 0 | feet to | 200 | feet, and from | 200 | feet to | 400 | feet |
| Cable tools were used from  |   | feet to |     | feet, and from |     | feet to |     | feet |

**DATE**

|    |                  |    |    |
|----|------------------|----|----|
| 19 | Put to producing | 19 | 20 |
|----|------------------|----|----|

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ % was oil; \_\_\_\_\_ P.e.

|               |              |             |
|---------------|--------------|-------------|
| Emulsion:     | % water: and | % sediment. |
| Gravity: °Be. |              |             |

|                                   |           |                                           |
|-----------------------------------|-----------|-------------------------------------------|
| It was well cut. ft. per 24 hours | 1.687 000 | Gallons gasoline per 1,000 cu. ft. of gas |
|-----------------------------------|-----------|-------------------------------------------|

**EMPLOYEES**

|         |         |
|---------|---------|
| Driller | Driller |
| Driller | Driller |

FORMATION RECORD

| FROM- | TO-  | TOTAL FEET | FORMATION                                          |
|-------|------|------------|----------------------------------------------------|
| 4589  | 4587 | 2          | tan to gray w-grn as interbedded w/gray sh.        |
| 4588  | 4586 | 2          | cliff houses. gray, fine-grn, dense sil sh.        |
| 4587  | 4585 | 2          | Menefee form. Gray, fine-grn s, comp sh & sand.    |
| 4586  | 4584 | 2          | Point Lookout form. Gray, very fine sil sh         |
| 4585  | 4583 | 2          | w/fragment sh breaks.                              |
| 4584  | 4582 | 2          | Manos form. Gray comp sh.                          |
| 4583  | 4581 | 2          | Gallup form. Lt gray to tan calc comp where glassy |
| 4582  | 4580 | 2          | very fine gray as w/interbed interbed sh.          |
| 4581  | 4579 | 2          | Greenhorn form. Highly calc gray sh w/thin sand.   |
| 4580  | 4578 | 2          | Graneros form. Dk gray sh, fossil & comp           |
| 4579  | 4577 | 2          | w/white incl.                                      |
| 4578  | 4576 | 2          | Dakota form. Lt to dk gray loss comp sh calc sh    |
| 4577  | 4575 | 2          | slty as w/white incl thin sh bands of sh           |
| 4576  | 4574 | 2          | shale breaks.                                      |