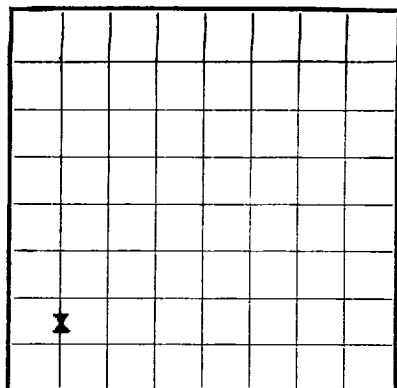
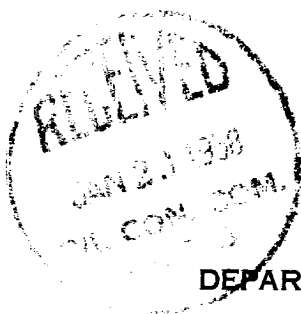




LOCATE WELL CORRECTLY

U. S. LAND OFFICE **SF**
SERIAL NUMBER **078596**
LEASE OR PERMIT TO PROSPECTUNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **El Paso Natural Gas Company** Address **Box 997, Farmington, New Mexico**
Lessor or Tract **Howell** Field **Blanco** State **New Mexico**
Well No. **4-C** Sec. **18** T. **30N** R. **8W** Meridian **N.M.P.M.** County **San Juan**
Location **933** ft. **(N.)** of **S** Line and **931** ft. **(E.)** of **W** Line of **Sec. 18** Elevation **6332'**
(Derick 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 F. H. WOOD**Date **January 17, 1958** Title **Petroleum Engineer**

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

Commenced drilling **9-28**, 19**57** Finished drilling **12-10**, 19**57**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **3080** to **3168 (G)** No. 4, from **5263** to **5363 (G)**
No. 2, from **4781** to **4889 (G)** No. 5, from to
No. 3, from **4889** to **5263 (G)** 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

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
10 3/4"	32.75	P. E.	S.W.	161'	Howco				Surface
7 5/8"	26.5	8 RA.	J-55	3348'	Baker				Prod. Csg.
5 1/2"	15.5	8 RA.	J-55	2104'	Baker				Prod. Liner
HISTORY OF OIL OR GAS METS									
2"	4.7	8 RA.	J-55	5301'					Prod. Tbg.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	173'	150	Circulated		
7 5/8"	3348'	250	Single Stage		
5 1/2"	3256-5360	300	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

Gas Drilled

Rotary tools were used from **175** feet to **3348** feet, and from **3348** feet to **5366** feetCable tools were used from **0** feet to **175** feet, and from feet to feet

DATES

12-17, 19**57** 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 **5,061,000** Gallons gasoline per 1,000 cu. ft. of gasRock pressure, lbs. per sq. in. **1023** **A.O.F. = 15,319 MCF/D**

EMPLOYEES

, Driller , Driller

, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1832	1832	Tan to gry cr-grn ss interbedded w/gry sh.
1832	2021	189	Ojo Alamo ss. White cr-grn s.
2021	2740	719	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
2740	3080	340	Fruitland form. Gry carb sh, scattered coals, coals and gry, tight, fine-grn ss.
3080	3168	88	Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss.
3168	4781	1613	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.
4781	4889	108	Cliff House ss. Gry, fine-grn, dense sil ss.
4889	5263	374	Menefee form. Gry, fine-grn s, carb sh & coal.
5263	5363	100	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
5363	5366	3	Manaos formation. Gry carb sh.

[OVER]

16-43094-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

12-13-51
Cast Iron HP @ 5350'. Perf. W/200'/ft. Int. 5262-76; 5286-5310; 5330-40.
Water frc. P. L. W/66,000 gal. water, 60,000# sand. Flush W/10,000 gal.
water. IR 13.0 BPM. HD 2300, tr. pr. 1200 & 1500. Max. pr. 1500.
5 stages. Dropped & sets of 18 balls.
12-13-51 HP @ 4950'. Perf. W/200'/ft. Int. 4768-4802; 4806-4818; 4830-40; 4870-80.
Water frc. C. H. W/66,000 gal. water, 60,000# sand, flush
W/75,000 gal. water. (IR 62.6. HD - none. tr. & max. pr. 1400#. 5
stages. Dropped & sets of 18 balls.

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 balling.

U. S. GOVERNMENT PRINTING OFFICE 16-43094-2

FROM-	TO-	TOTAL FEET	FORMATION
0.0	1.0	1.0	Gravelly sand
1.0	2.0	2.0	Sand
2.0	3.0	3.0	Sand
3.0	4.0	4.0	Sand
4.0	5.0	5.0	Sand
5.0	6.0	6.0	Sand
6.0	7.0	7.0	Sand
7.0	8.0	8.0	Sand
8.0	9.0	9.0	Sand
9.0	10.0	10.0	Sand
10.0	11.0	11.0	Sand
11.0	12.0	12.0	Sand
12.0	13.0	13.0	Sand
13.0	14.0	14.0	Sand
14.0	15.0	15.0	Sand
15.0	16.0	16.0	Sand
16.0	17.0	17.0	Sand
17.0	18.0	18.0	Sand
18.0	19.0	19.0	Sand
19.0	20.0	20.0	Sand
20.0	21.0	21.0	Sand
21.0	22.0	22.0	Sand
22.0	23.0	23.0	Sand
23.0	24.0	24.0	Sand
24.0	25.0	25.0	Sand
25.0	26.0	26.0	Sand
26.0	27.0	27.0	Sand
27.0	28.0	28.0	Sand
28.0	29.0	29.0	Sand
29.0	30.0	30.0	Sand
30.0	31.0	31.0	Sand
31.0	32.0	32.0	Sand
32.0	33.0	33.0	Sand
33.0	34.0	34.0	Sand
34.0	35.0	35.0	Sand
35.0	36.0	36.0	Sand
36.0	37.0	37.0	Sand
37.0	38.0	38.0	Sand
38.0	39.0	39.0	Sand
39.0	40.0	40.0	Sand
40.0	41.0	41.0	Sand
41.0	42.0	42.0	Sand
42.0	43.0	43.0	Sand
43.0	44.0	44.0	Sand
44.0	45.0	45.0	Sand
45.0	46.0	46.0	Sand
46.0	47.0	47.0	Sand
47.0	48.0	48.0	Sand
48.0	49.0	49.0	Sand
49.0	50.0	50.0	Sand
50.0	51.0	51.0	Sand
51.0	52.0	52.0	Sand
52.0	53.0	53.0	Sand
53.0	54.0	54.0	Sand
54.0	55.0	55.0	Sand
55.0	56.0	56.0	Sand
56.0	57.0	57.0	Sand
57.0	58.0	58.0	Sand
58.0	59.0	59.0	Sand
59.0	60.0	60.0	Sand
60.0	61.0	61.0	Sand
61.0	62.0	62.0	Sand
62.0	63.0	63.0	Sand
63.0	64.0	64.0	Sand
64.0	65.0	65.0	Sand
65.0	66.0	66.0	Sand
66.0	67.0	67.0	Sand
67.0	68.0	68.0	Sand
68.0	69.0	69.0	Sand
69.0	70.0	70.0	Sand
70.0	71.0	71.0	Sand
71.0	72.0	72.0	Sand
72.0	73.0	73.0	Sand
73.0	74.0	74.0	Sand
74.0	75.0	75.0	Sand
75.0	76.0	76.0	Sand
76.0	77.0	77.0	Sand
77.0	78.0	78.0	Sand
78.0	79.0	79.0	Sand
79.0	80.0	80.0	Sand
80.0	81.0	81.0	Sand
81.0	82.0	82.0	Sand
82.0	83.0	83.0	Sand
83.0	84.0	84.0	Sand
84.0	85.0	85.0	Sand
85.0	86.0	86.0	Sand
86.0	87.0	87.0	Sand
87.0	88.0	88.0	Sand
88.0	89.0	89.0	Sand
89.0	90.0	90.0	Sand
90.0	91.0	91.0	Sand
91.0	92.0	92.0	Sand
92.0	93.0	93.0	Sand
93.0	94.0	94.0	Sand
94.0	95.0	95.0	Sand
95.0	96.0	96.0	Sand
96.0	97.0	97.0	Sand
97.0	98.0	98.0	Sand
98.0	99.0	99.0	Sand
99.0	100.0	100.0	Sand