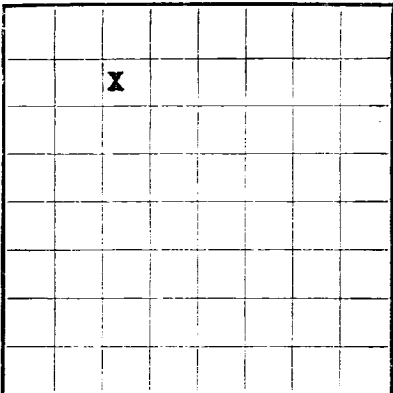


U. S. LAND OFFICE **Santa Fe**
SERIAL NUMBER **080646**
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico
Lessor or Tract Merfano Unit Field Basin Dakota State New Mexico
Well No. 116 (GD) Sec. 11 T. 26-N R. 10-W Meridian N.M.P.M. County San Juan
Location 990 ft. XXX of N Line and 1652 ft. XXX of W Line of Section 11 Elevation 6690
(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 _____
Date January 19, 1961 Title Petroleum Engineer

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

Commenced drilling 10-11-, 1960 Finished drilling 10-28-, 1960

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5790 to 6397 (O & G) No. 4, from _____ to _____
No. 2, from 6729 to 6830 (G) No. 5, from _____ to _____
No. 3, from 6840 to 7030 (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"	32.4	8 Rd.	H-40	296	Hewco				surface
2 7/8"	6.4	8 Rd.	J-55	7021	Baker				prod casing
2 7/8"	6.4	8 Rd.	J-55	6267	Baker				prod casing
1 1/4"	2.4	10 Rd.	J-55	2448					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9 5/8"	304	300	circulated		
2 7/8"	7029	81	single stage		
2 7/8"	6276	326	single stage		
1 1/4"	2457	170	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 7030 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

S. I. 12-1-, 1960 Put to producing _____, 19____

The production for the first 24 hours was 7.3 barrels of fluid of which 100% was oil; _____% emulsion; _____% water; and _____% sediment. & 272 MC³/D Gravity, °Bé. _____

If gas well, cu. ft. per 24 hours 2,994,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 977
D-989 EMPLOYEES A.O.F. 3084 MCF/D

_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1408	1408	Tan to gry cr-grn ss interbedded w/gry sh.
1408	1526	118	Ojo Alamo ss. White cr-grn s.
1526	2096	570	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
2096	2278	182	Fruitland form. Gry carb sh, scattered coals, coals and gry, tight, fine-grn ss.
2278	2391	113	Pictured Cliffs forms Gry, fine-grn, tight, varicolored soft ss.
2391	3875	1484	Lewis form. Gry, fine-grn, dense sil ss.
3875	3964	89	Cliff House ss. Gry, fine-grn, dense sil ss.
3964	4706	742	Menefee form. Gry, fine-grn s, carb sh & coal.
4706	4937	231	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
4937	5790	853	Mancos form. Gry carb sh.
5790	6397	607	Gallup form. Lt gry to brn calc carb micac glauco very fine gry ss w/irreg. interbed sh.
6397	6674	277	Sanostee form. Drk gry calc very fine to fine gry ss w/calc veins w/irreg inter drk gry s.
6674	6729	55	Greenhorn form. Highly calc gry sh w/thin lmst.
6729	6840	111	Graneros form. Dk gry shale, fossil & carb w/prite incl.
6840	7030	190	Dakota form. Lt to dk gry foss carb sl calc sl silty ss w/prite incl thin sh bands clay & shale breaks.

FORMATION RECORD—Continued

[illegible]

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.

HISTORY OF OIL OR GAS WELL

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6840-50; 6856-56;
6873-84;

Frac Dakota w/60,000 gal gelled water and 50,000 # sand.
 Flushed w/1890 gal water. Formation B.D. @ 3000 #, max pr
 4500 #. Avg inf. rate 19 BPM. Tr pr 3500-3800-4100-4300-4500.
 Dropped 1 set of 10 balls.

5996-6008; 6154-66;
6171-80; 6184-92;

4100.
 Average infection rate 13.6 BHM. Treating in 3850-3900-4000-4200
 w/1764 gal oil. Max in 4200. Formation Breakdown @ 2100 #.
 frac Gallup w/60,000 gal gelled oil & 50,000 # sand. Flushed