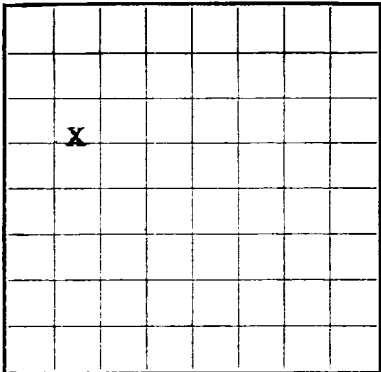


U. S. LAND OFFICE **SF**
SERIAL NUMBER **080382-A**
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **El Paso Natural Gas Products Co.** Address **Box 1560, Farmington, New Mexico**
Lessor or Tract **Frontier** Field **Undesig. Gallup** State **New Mexico**
Well No. **3-C** Sec. **5** T. **27N** R. **11W** Meridian **NMPM** County **San Juan**
Location **1980** ft. **N** of **N** Line and **990** ft. **E** of **W** Line of **Section 5** Elevation **6092'**
(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 BY: JOSEPH E. KREGER**
Date **August 9, 1960** Title **Petroleum Engineer**

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

Commenced drilling **June 11**, 19 **60** Finished drilling **June 24**, 19 **60**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **5800** to **5820** No. 4, from to
No. 2, from **5870** to **5892** 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—	
9-5/8"	34.00	8 RA	J-55	159	Texas Pat.	5800	5800	5820	Prod. gas.
5-1/2"	18.86	8 RA	J-55	1794	Texas Pat.	5870	5870	5892	Prod. gas.
HISTORY OF OIL OR GAS LOGS									
19-75 104-3 0121 COMPANY 744 DEPT. OF COMMERCE									

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8"	171	200	Circulated		
5-1/2"	6004	200 - for 1st stage 100 - for 2nd stage	Two stages.		

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 **6004** feet, and from feet to feet
Cable tools were used from feet to feet, and from feet to feet

DATES

July 8, 19 **60** Put to producing **July 21**, 19 **60**
The production for the first 24 hours was **100.01** barrels of fluid of which **100**% was oil; %
emulsion; % water; and % sediment. Gravity, °Bé. **0** **API 40.5**
If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
Rock pressure, lbs. per sq. in.

EMPLOYEES

, Driller , Driller
, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	712	712	Interbedded sandstone and shale.
712	805	93	Ojo Alamo: Wh., cse. grained sand.
805	1577	762	Kirtland: Gy. sh. inbd. w/tight gy. FG ss.
1577	1345	263	Fruitland: Gy. carb. sh., scat. coals, coals & gy. tight FG ss.
1345	1942	97	Pictured Cliffs: Gy., FG tight, varicolored soft ss.
1942	2786	457	Lewis: Gy. to wh. ds. sh. w/silty to shaley ss brks.
2786	4313	1527	Mesa Verde: Gy., FG, ds. silty ss, carb. sh. & coal.
4313	4584	271	Point Lookout: Gy, v/fn. silty ss w/freq. sh. breaks.
4584	5455	871	Mancos: Gy. carb. shale.
5455	5794	339	Gallup: Lt. gy. to brn. calc. carb. micac. glauconitic. V/fn. to med. gr. ss w/irreg. inbd. sh.
5794	5872	78	Hueffano: Fine to medium grained ss.
5872	5935	63	Tocito: Fn. to MG sub angular to sub round clr. quartz sand glauconite lt. gn. to tan.
5935	6004	69	Sanastee: Dk. gy. calc. v/fn. to f. gy. ss. w/calc. veins, w/irreg. i bd. dk. gy. sd.
TOPS ARE FROM ELECTRIC LOGS AND RADIOACTIVITY LOGS.			

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of drilling, 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.

Core #1: 5775'-5802', cor 277, Rec. 16' sand, 11' sandy shale

Core #2 5802'-5820', cut 18', Rec. 12' sand and 6' shale.

Core #3. 5845'-5885', cut 40% Rec. 20' shale and 20' sand.

Fractured 5870'-5920' with 50,904 gals. of oil and 50,000# of sand.
Breakdown pressure 1600 psi, average casing pressure 1900 psi;
Injection Rate: 34.3 bbls./min. Injected 40 bbls, no pressure
increase. Finished with 6300 gallons of oil.

Fractured 5800'-5820' with 35,200 gals. of oil and 25,000# sand.

7-2-60
Placed 5800' - 5820' with 35,200 gals. of oil and 35,000# sand.

09-1-60

6-23-60

09-28-9

FORMATION

TOTAL FEET

—OL

FROM--