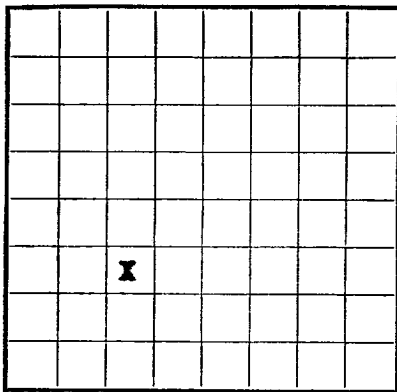
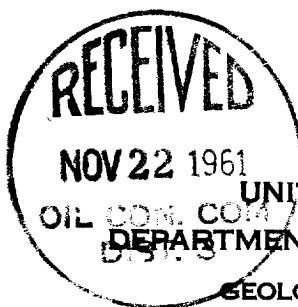
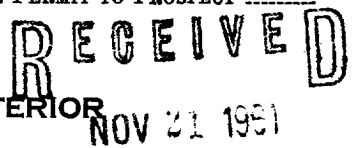




LOCATE WELL CORRECTLY

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078194
LEASE OR PERMIT TO PROSPECT _____UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYU. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico
Lessor or Tract Ludwick Field Basin Dakota State New Mexico
Well No. 20 Sec. 29 T. 30N R. 10W Meridian N.M.P.M. County San Juan
Location 1460 ft. N. of S Line and 1600 ft. E. of W Line of Section 29 Elevation 6084
(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 Orlando S. MillerDate November 15, 1961Title Petroleum Engineer

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

Commenced drilling 9-21-, 19 61 Finished drilling 10-11-, 19 61

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6852 to 6977 (G) No. 4, from _____ to _____
No. 2, from 6977 to 7186 (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—	
<u>10 3/4"</u>	<u>22.75</u>	<u>8 rd</u>	<u>40</u>	<u>287'</u>	<u>Reece</u>	<u>11000'</u>			<u>Surface</u>
<u>4 1/2"</u>	<u>11.5</u>	<u>8 rd</u>	<u>40</u>	<u>703'</u>	<u>Reece</u>	<u>11000'</u>			<u>Intermediate</u>
<u>2 3/8"</u>	<u>4.7</u>	<u>8 rd</u>	<u>40</u>	<u>7130'</u>	<u>Reece</u>	<u>11000'</u>			<u>Prod tubing.</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>10 3/4"</u>	<u>303</u>	<u>270</u>	<u>circulated</u>		
<u>4 1/2"</u>	<u>7184</u>	<u>520</u>	<u>3 stages</u>		

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
<u>6910-16; 6950-56; 6962-68;</u>	<u>Water Free Dakota w/10,000 gal water, 10,000# sand. BDP 1500#,</u>					
<u>6976-82; 7048-54; 7086-92;</u>	<u>max pr 4000#, avg tr pr 3400#, 3500#, 3700#. I.R. 38.6 BPM.</u>					
<u>7122-28; 7136-42;</u>	<u>Flush w/4800 gallons.</u>					

TOOLS USED

Rotary tools were used from 0 feet to 7186 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

10-26-, 19 61 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 5,090,000 Gallons gasoline per 1,000 cu. ft. of gas _____Rock pressure, lbs. per sq. in. 2198 (casing) A.O.F. 6464 MCF/D

EMPLOYEES

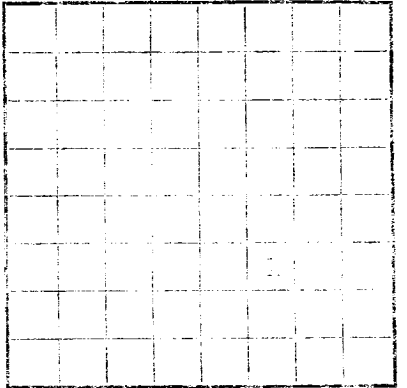
_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1194	1194	Tan to gry cr-grn ss interbedded w/gry sh.
1194	1323	129	Ojo Alamo ss. White cr-grn s.
1323	2209	886	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
2209	2509	300	Fruitland form. Gry sh interbedded w/tight gry fine-grn ss. Gry carb sh, scattered coals, coals & gry, tight, fine-grn ss.
2509	2586	77	Pictured Cliffs forms. Gry, fine-grn, tight, varicolored soft ss.
2586	4191	1605	Lewis form. Gry, fine-grn dense sil ss.
4191	4320	129	Cliff House ss. Gry, fine-grn, dense sil ss.
4320	4831	511	Manefee form. Gry, fine-grn s, carb sh & coal.
4831	5038	207	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
5038	6054	1016	Mancos form. Gry carb sh.
6054	6793	739	Gallup form. Lt gry to brn calc carb micac glauco very fine gry ss w/irreg interbed sh.
6793	6852	59	Greenhorn form. Highly calc gry sh w/thin lmst.
6852	6977	125	Graneros form. Dk gry sh, fossil & carb w/prite
6977	7186	209	Dakota form. Lt to dk gry foss carb sl calc sl silty ss w/prite incl thin sh bands clay & shale breaks.

(OVER)

FORMATION RECORD—CONTINUED



LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company _____ Address _____
Location _____
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 _____
This _____

The summary on this page is for the condition of the well as above data
Continued drilling _____

OIL OR GAS SANDS OR ZONES

No. 1 from _____ to _____
No. 2 from _____ to _____
No. 3 from _____ to _____

IMPORTANT WATER SANDS

No. 1 from _____ to _____
No. 2 from _____ to _____

CASING RECORD

Running _____
If _____
Please state in detail the dates of redrilling, _____

HISTORY OF OIL OR GAS WELL

MUDDING AND CEMENTING RECORD

PLUGS AND ADAPTERS

SHOOTING RECORD

TOOLS USED

DATES

EMPLOYEES

FORMATION RECORD
