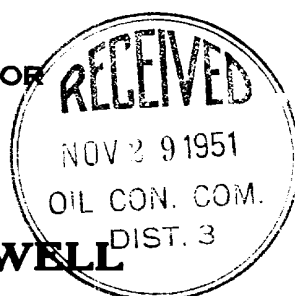


U. S. LAND OFFICE _____
SERIAL NUMBER 977302
LEASE OR PERMIT TO PROSPECT Hargrave

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company El Paso Natural Gas Co. Address P.O. Box 997, Farmington, New Mexico
 Lessor or Tract Hargrave Field Fulcher-Kutz State New Mexico
 Well No. 1 Sec. 4 T. 7N R. 10W Meridian MGM County San Juan
 Location 990 ft. N. of S. Line and 990 ft. W. of E. Line of Sec. 4 Elevation 5184

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 November 19, 1951 Title Petroleum Engineer

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

Commenced drilling _____, 19____ Finished drilling _____, 19____

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2095 to 2134 No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 350 to 365 No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

[illegible]

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
-5/8	99	50	Circulated		
9/16	2100	100	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
Qts.	REG.	SNG	230	11-6-51	2109-2201	2206

TOOLS USED

Rotary tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet
Cable tools were used from 99 feet to 2206 feet, and from _____ feet to _____ feet

DATES

....., 19..... 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.

It gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. 370,000

553 EMPLOYEES

....., Driller , Driller
....., Driller , Driller

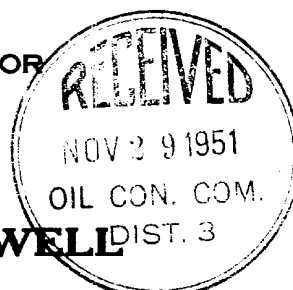
FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	850	850	Varieg. shale, etc.
850	1185	335	Tan to gray ss.
1185	1220	35	Ojo Alamo. Top Ojo 1185.
1220	1825	605	Kirtland Form. Top of Kirtland 1220.
1825	2095	270	Fruitland Form. Top of Fruitland 1825.
2095	2134	39	Pictured Cliffs. Top P.C. 2095.
2134	2206	72	Upper Lewis. Top Lewis 2134.
			Same as Nutz Canyon O. & G. Nol.

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 077302
LEASE OR PERMIT TO PROSPECT Hargrave

						X	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Co. Address P.O. Box 997, Farmington, New Mexico
 Lessor or Tract Margrave Field Fulcher Butte State New Mexico
 Well No. 1 Sec. 4 T. 27N R. 10W Meridian 1804 County San Juan
 Location 200 ft. (N.) of 3 Line and 500 ft. (E.) of 5 Line of Sec. 4 Elevation 5234
 (District Area related to Parcel)

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 E. J. COEL

Date November 19, 1951 Title Petroleum Engineer

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

Commenced drilling -----, 19----- Finished drilling -----, 19-----

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from ~~235~~ to ~~234~~ No. 4, from _____ to _____
 No. 2, from _____ to _____ No. 5, from _____ to _____
 No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 350 to 855 No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

[illegible]

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
5-5/8	99	50	Circulated		
9-1/2	2100	100	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
4th.	REG.	SMS	230	11-6-51	2109-2201	2206

TOOLS USED

Rotary tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet.

Cable tools were used from 99 feet to 206 feet, and from _____ feet to _____ feet.

DATE 99

....., 19..... 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.

1. gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. **370,000**

55 EMPLOYEES

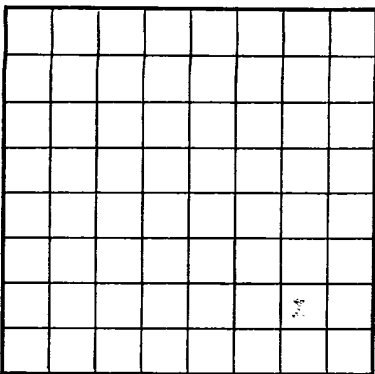
_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	850	850	Varieg. shale, etc.
850	1135	335	Tan to gray ss.
1135	1220	35	Ojo Alamo. Top Ojo 1135.
1220	1825	605	Kirtland Form. Top of Kirtland 1220.
1825	2095	270	Fruitland Form. Top of Fruitland 1825.
2095	2134	39	Pictured Cliffs. Top P.C. 2095.
2134	2206	72	Upper Lewis. Top Lewis 2134.
			Same as Kutz Canyon C. & G. Vol.

Form 9-380

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 077382
LEASE OR PERMIT TO PROSPECT Hargrave



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Co. Address P.O. Box 997, Farmington, New Mexico
Lessor or Tract Hargrave Field Fulcher-Kutz State New Mexico
Well No. 1 Sec. 4 T. 17N R. 10W Meridian 10N County San Juan
Location 920 ft. (N.) of 11 Line and 990 ft. (W.) of 3 Line of Sec. 4 Elevation 5134
(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 E. J. COEL

Date November 12, 1951 Title Petroleum Engineer

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

Commenced drilling _____, 19____ Finished drilling _____, 19____

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 2095 to 2134 No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 35 to 85 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>8-5/8</u>	<u>21.53</u>	<u>3</u>	<u>Waco</u>	<u>50</u>	<u>WACO</u>				<u>Surface</u>
<u>5-9/16</u>	<u>11.53</u>	<u>3</u>		<u>2095</u>	<u>2134</u>				<u>Production</u>
<u>1</u>									<u>Siphon</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8-5/8</u>	<u>99</u>	<u>10</u>	<u>Circulated</u>		
<u>5-9/16</u>	<u>2134</u>	<u>100</u>	<u>Single Stage</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>2 1/2 in.</u>	<u>REG.</u>	<u>3HG</u>	<u>230</u>	<u>11-6-51</u>	<u>2109-2201</u>	<u>2206</u>

TOOLS USED

Rotary tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet
Cable tools were used from 99 feet to 2206 feet, and from _____ feet to _____ feet

DATE 99

_____, 19____ 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 _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 370,000

55 EMPLOYEES

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

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
	<u>050</u>	<u>050</u>	<u>Variag. shale, etc.</u>
<u>050</u>	<u>1135</u>	<u>335</u>	<u>Tan to gray ss.</u>
<u>1135</u>	<u>1220</u>	<u>35</u>	<u>Ojo Alamo. Top Ojo 1135.</u>
<u>1220</u>	<u>1825</u>	<u>605</u>	<u>Kirtland Form. Top of Kirtland 1220.</u>
<u>1825</u>	<u>2095</u>	<u>270</u>	<u>Fruitland Form. Top of Fruitland 1825.</u>
<u>2095</u>	<u>2134</u>	<u>39</u>	<u>Pictured Cliffs. Top P.C. 2095.</u>
<u>2134</u>	<u>2206</u>	<u>72</u>	<u>Upper Lewis. Top Lewis 2134.</u>
			<u>Same as Kutz Canyon O. & G. Vol.</u>

(OVER)

