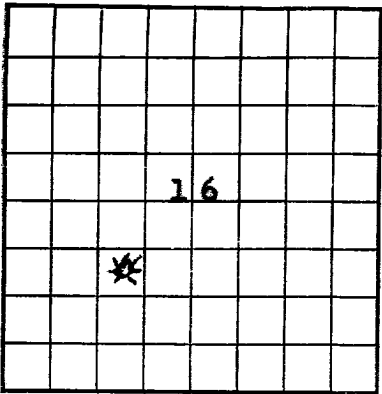


Form 9-390

U. S. LAND OFFICE SANTA FE
SERIAL NUMBER 080382-A
LEASE OR PERMIT TO PROSPECT _____



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Schwerdtfeger #12
C SW NE SW

APR 24 1952

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

LOG OF OIL OR GAS WELL

Company The Frontier Refining Company Address 410 Boston Bldg., Denver, Colo.
Lessor or Tract Sanford Packer Government Field Delta Canyon (Art) State New Mexico
Well No. 12 Sec. 10 T. 27N R. 13E Meridian N.M.P.M. County San Juan
Location 1600 ft. N. of 1/2 Line and 1400 ft. E. of W. Line of Section 16 Elevation 6269'
(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 Donnan S. Galbraith
Date April 22, 1952 Title Donnan S. Galbraith, Geologist

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

Commenced drilling 1/22, 19 52 Finished drilling 1/25, 19 52

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

No. 1, from 1940 to 2003 0' 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 _____ 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>8-5/8"</u>	<u>21.7</u>	<u>4</u>	<u>1021</u>	<u>1021</u>	<u>plug</u>	<u>1940</u>			<u>Surf</u>
<u>5-1/2"</u>	<u>14.8</u>	<u>4</u>	<u>1021</u>	<u>1021</u>	<u>plug</u>	<u>1945</u>			<u>Surf</u>

HISTORY OF OIL OR GAS WELL

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>112' KB</u>	<u>95 sacks</u>	<u>plug</u>		
<u>5-1/2"</u>	<u>1945' KB</u>	<u>75 sacks</u>	<u>plug</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 x 7</u>	<u>2</u>	<u>Liquid Nitro</u>	<u>14 lbs.</u>	<u>2/8/52</u>	<u>1983-2003' KB</u>	<u>2003' KB</u>

TOOLS USED

Rotary tools were used from _____ feet to 1945 feet, and from _____ feet to _____ feet
Cable tools were used from 1945 feet to 2003 feet, and from _____ feet to _____ feet

DATES

Completed 2/8, 19 52 Put to producing Shut in, 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 517,000 Gallons gasoline per 1,000 cu. ft. of gas _____
Rock pressure, lbs. per sq. in. 4600

EMPLOYEES

Camden Drilling Company, Driller _____, Driller
English Drilling Company, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>1940</u>	<u>1940</u>	<u>Sand and shale with coal streaks near the base. Torrehon-Puerco at the surface. Pictured Cliffs at 1940'.</u>
<u>1940</u>	<u>2003</u>	<u>63</u>	<u>Sand with shale breaks.</u>
	<u>2003' KB</u>	<u>TD</u>	<u>(No electric log run)</u>

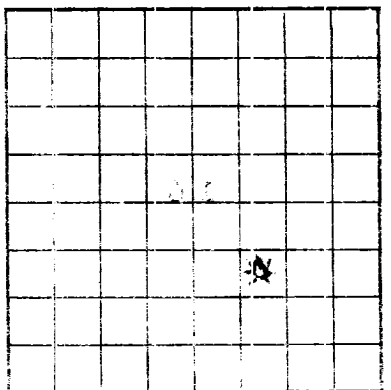
(OVER)

FORMATION RECORD—CONTINUED

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

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GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL



LOCATE WELL CORRECTLY

1/22/52 Spudded: Run 3 joints (102') of 8-5/8" OD, 22.7 lb./ft., Grade B plain line pipe and cemented at 112' KB with 25 sacks of cement. Tested casing with 500# pressure held for 30 minutes.

1/23/52 Drilled thru plug and tested with 300# pressure held for 30 minutes. The water level remained stationary. Drilled to 969'.

1/24/52 Drilled to 1520'. Top of lignite shale at 140' KB. Ran 65 joints (1975') of 5 1/2" OD, 17.7 lb./ft., G&D, API casing and cemented at 1974' KB with 75 sacks of cement. Moved off rotary/casing from 140' KB to 1520'.

1/30/52 Moved in cable tools. Well making water. Bottom well dry. Making 8 gallons of salty water per hour. (Denote gas by G)

2/1/52 Drilled to 1958'. Running batter. Welding the sand on wires standing by. Completed drilling.

2/4/52 Standing by.

2/5/52 Dumped 2nd 32 gallons of hydraulic pump pressure test at 300#/sq. in. at surface. Dumped 3rd 32 gallons of hydraulic pump pressure test at 300#/sq. in. at surface. The information herewith is a complete and correct record of the well and all work thereon so far as can be determined from all records.

2/6/52 Drilled to 2003' KB ID. Ranged 370' HCNH to bottom. Drilled to 2003' KB ID. Ranged 370' HCNH to bottom. Elevation 2003'.

2/8/52 Run an open spot of 17 joints of standard weight 2 cans 2 1/2". Spot from 1983'-2003' KB. Shot off at 1113' P. Field completed as a single run with a first range of 51' HCNH at 760' IP. No 1" tubing run. Address

Company

HISTORY OF OIL OR GAS WELL

[illegible]

FORMATION RECORD—Continued