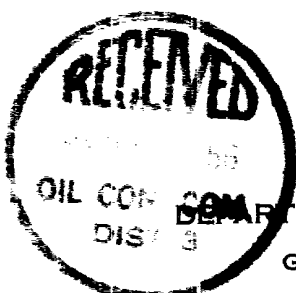


[illegible]

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078417
LEASE OR PERMIT TO PROSPECT _____
14-08-001-450

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
 Lessor or Tract San Juan 28-7 Unit Field Blanco State New Mexico
 Well No. 49 Sec. 21 T. 28N R. 7W Meridian NMPM County Rio Arriba
 Location 769 ft. 1000 of N. Line and 550 ft. 1000 of E. Line of Sec. 21 Elevation 6158'
 (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.

Date September 21, 1956 Title Petroleum Engineer

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

Commenced drilling 7-25-56, 1956 Finished drilling 8-31-56, 1956

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2799 to 2871 (G) No. 4, from 5014 to 5184 (G)
 No. 2, from 4427 to 4590 (G) No. 5, from _____ to _____
 No. 3, from 4590 to 5014 (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 casting	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
10 3/4"	32.75	P.H.	S.W.	162'	HAWCO				Surface
7 5/8"	26.4	8 RD	J-55	2895'	Baker				Intermediate
5 1/2"	15.5	8 RD	J-55	5235'	Baker				Prod. Cg.
2"	4.7	8 RD	J-55	5149'					Prod. Tbg.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	165'	125	Circulated		
7 5/8"	2905'	250	Single Stage		
5 1/2"	5245'	300	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 167 feet to 2005 feet, and from 2905 feet to 5245 feet

Cable tools were used from -----0----- feet to -----167----- feet, and from ----- feet to ----- feet

DATES

----- ~~6-7-50~~ -----, 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 4,333,000 ^{A.O.F. 7,240 MCF/D.} Gallons gasoline per 1,000 cu. ft. of gas -----

Rock pressure, lbs. per sq. in. -----1076-----

EMPLOYEES

_____, Driller _____, Driller

_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1965	1965	Tan to gry cr-grn ss interbedded w/gry sh.
1965	2055	90	Ojo Alamo ss. White cr-grn s.
2055	2529	474	Kirtland form. Gry sh interbedded w/tight gry fine-grn ss.
2529	2799	270	Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss.
2799	2871	72	Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss.
2871	4427	1556	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.
4427	4590	163	Cliff House ss. Gry, fine-grn, dense sil ss.
4590	5014	424	Manefee form. Gry, fine-grn s, carb sh & coal.
5014	5184	170	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
5184	5245	61	Mancos formation. Gry carb sh.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BIOLOGICAL SURVEY



100-368610-100

John N. Harbo

FILED IN 20448 240 90 J10

9-3-50 F.B. 5245. C.O. to 5179. Perforated 4976-84, 5014-23, 5052-64. Fractured with 61,000 gallons water and 60,000 sand. Finished with 5300 gal. I.M. 60.5 BPM. Max. pr. 1800#, Average pr. 1500#. CASING RECORD.

9-3-50 PING 4630. Perf. 4550-64, 4580-70. Fractured with 47,900 gallons water and 52,300 sand. Maximum pressure 2550#, Average tr. pr. 1850#.

9-4-56 PING @ 4540. Perforated 4420-40, 4462-72, 4484-98. Fractured with 65,000 gallons water and 60,000 sand. I.M. 34.8 BPM. Max. pr. 3800#, Avg. tr. pr. 2500#.

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

U. S. GOVERNMENT PRINTING OFFICE

FROM	TO	TOTAL FEET	FORMATION
			MORNING AND AFTERNOON
			PLACES AND ADAPERS
			SHOOTING RECORD
			TOOLS USED
			RECORDS
			FORMALIN RECORD