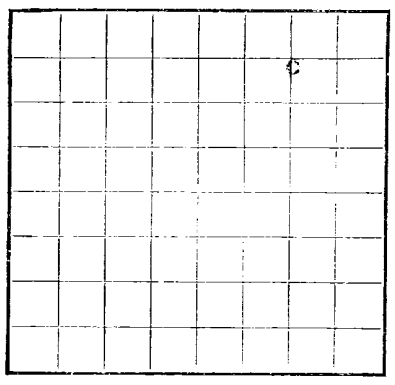
Dec NM

Form 9-330

Budget Bureau No. 42-R-355.3.
Approval expires 12-31-55.

√ U. S. Land Office Santa Fe
Serial Number or [illegible] 079049
Lease or Permit to Prospect San Juan Unit 28-6



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Co Address Farmington, New Mexico

Lessor or Tract Pubco Development, Inc. Field Blanco State New Mexico

Well No. 11 Sec. 9 T. 27N R. 6W Meridian N.M.P.M. County Rio Arriba

Location 940 ft. [X] N. [ ] S. of S Line and 1100 ft. [X] E. [ ] W. of E Line of Section 9 Elevation 6272
(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 E. J. Goel

Date December 1, 1954 Title

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

Commenced drilling September 10, 1954 Finished drilling October 3, 1954

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from (G) 4630 to 5226 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 From—	Perforated To—	Purpose
10 3/4	32.75#	3rd	Spang	217.66	Howco				Surface
7	20&23#	3rd	CF	4630.00	Baker				Production
2	4.7	3rd	UP	5352.58					Prod Tubing

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4	217.66	200	double plug		
7	4639.00	sq cv 100	double plug		

MARKER

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
~~Sand-oil frac-details on reverse side~~						

TOOLS USED

Rotary tools were used from surface feet to 5363 feet, and from ____ feet to ____ feet

Cable tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet

DATES

Completion date: October 5, 1954 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 1797 MCF Gallons gasoline per 1,000 cu. ft. of gas ____

Rock pressure, lbs. per sq. in. 1057

EMPLOYEES

R. L. Higgins, usher, Driller J. A. Greenway, Driller

John Brown, Driller R. A. Hodson, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
Surface	2372	2372	Tertiary
2372	2698	326	Kirtland
2698	2980	282	Fruitland
2980	3100	120	Pictured Cliffs
3100	4570	1470	Lewis
4570	4748	178	Cliff House
4748	5156	408	Menefee
5156	5298	142	Point Lookout
5298	5363 TD	65	Mancos

FOLD

16—42094-3

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

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 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 balling.

Sand-oil frac:

Date Treated:	9-29-54	10-5-54
Depth Treated:	4476-4753	5116-5363
Name Formation:	Cliff House	Point Lookout
Treating Fluids:	5520 gals	12,210 gals
Sonus Sand:	24,000#	40,000#
Flush:	1260 gals	2940 gals
Pressures:		
Breakdown:	1500#	500#
Treating:	1500-1000#	1500#
Final:	1500#	1500#
Treating Time:	31 min	22 min
Injection Rate:	4.25 bbls/min	10.2 bbls/min

Form C-122-A
Revised April 20, 1955

NEW MEXICO OIL CONSERVATION COMMISSION

GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool Blanco Formation Mesa Verde County Rio Arriba

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed

Operator El Paso Natural Gas Company Lease San Juan 28-6 Unit Well No. 11

Unit A Sec. 9 Twp. 27 Rge. 6 Pay Zone: From 4570 To 5298

Casing: OD 7 WT. 20 Set At 4630 Tubing: OD 2 WT. 4.7 T. Perf. 5292

Produced Through: Casing Tubing X Gas Gravity: Measured Estimated .700

Date of Flow Test: From 10/9/56 To 10/17/56 * Date S.I.P. Measured

Meter Run Size Orifice Size Type Chart Type Taps

OBSERVED DATA

Flowing casing pressure (Dwt)	psig + 12 =	psia	(a)
Flowing tubing pressure (Dwt)	psig + 12 =	psia	(b)
Flowing meter pressure (Dwt)	psig + 12 =	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:			
Normal chart reading	psig + 12 =	psia	(d)
Square root chart reading ( ) ^{2} x spring constant	=	psia	(d)
Meter error (c) - (d) or (d) - (c) ±	=	psi	(e)
Friction loss, Flowing column to meter:			
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	psi	(f)
Seven day average static meter pressure (from meter chart):			
Normal chart average reading	psig + 12 =	psia	(g)
Square root chart average reading (7.25) ^{2} x sp. const. 10	= 526	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	= 526	psia	(h)
P_t = (h) + (f)	= 526	psia	(i)
Wellhead casing shut-in pressure (Dwt) 989	psig + 12 = 1001	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 978	psig + 12 = 990	psia	(k)
P_c = (j) or (k) whichever well flowed through	= 990	psia	(l)
Flowing Temp. (Meter Run) 65 °F + 460	= 525	°Abs	(m)
P_d = ½ P_c = ½ (l)	= 495	psia	(n)

FLOW RATE CALCULATION

$$Q = \text{(integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \quad \right)^{*} = 230 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\ 230 \left[\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right) = \frac{735,075}{708,321} \right]^{n} \frac{1.0466}{1.0348} = 238 \text{ MCF/da.}$$

SUMMARY

P_c =	990 psia	Company	El Paso Natural Gas Company
Q =	230 Mcf/day	By	T. Galloway
P_w =	527 psia	Title	
P_d =	495 psia	Witnessed by	
D =	238 Mcf/day	Company	

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)2$	$\frac{(FcQ)^2 \quad (1-e^{-S})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
3704	.236	4.674	1103	276,676	527,779	527

D @ 500= 234

RECEIVED
NOV - 1956
OIL CON. COM.
DIST. 3

OIL CONSERVATION COMMISSION

AZTEC DISTRICT OFFICE

No. Copies Received 3

DISTRIBUTION

	NO. FURNISHED	
Operator		
Santa Fe	1	
Proration Office		
State Land Office		
U. S. G. S.	1	
Transporter		
File	1	✓