Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. Land Office Santa Fe
Serial Number ...072319
Lease or Permit to Prospect
E. . Pipkin

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Company Address Box 480, Farmington, New Mexico

Lessor or Tract E. M. Pipkin Field Basin Dakota State New Mexico

Well No. 8-Y Sec. 1 T. 27N R. 11W Meridian N.M.P.M. County San Juan

Location 1070 ft. N/S of S Line and 1610 ft. E/W of W Line of Section 1 Elevation 5773 (D.B) (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

Date February 21, 1961 Title Senior Petroleum Engineer

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

Commenced drilling January 7, 19 61. Finished drilling January 19, 1961

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6194 to 6222 No. 4, from to

No. 2, from 6120 to 6126 No. 5, from to

No. 3, from 6159 to 6163 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
8-5/8"	20	8 RT	J-55	514	Guide				surface
4-1/2"	9.5	8 RT	J-55	6292	Guide				oil string

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	523	450 sacks of cement	Halliburton	1 plug	
4-1/2"	6270	525 sacks of cement	Baker	2 tags	

FOLD | MARK

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

TOOLS USED

Rotary tools were used from 0 feet to 6270 feet, and from feet to feet

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

DATES

Completed February 13, 1961 as Shut In Basin Dakota Field Development Well., 19

Shut in for pipeline connection

Put to producing February 13, 19 61

The production for the first 24 hours was barrels of fluid of which % was oil; % emulsion; % water; and % sediment. Gravity, °Bé.

Pre. Treat. If gas well, cu. ft. per 24 hours 1304 MCF Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

(Potential test will be filed on Sundry Notice when available.)

EMPLOYEES

John . Fox, Driller J. W. Binkley, Driller

Charles Lockhart, Driller . C. Cary, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
	530	530	Surface sands and shales
530	595	65	Ojo Alamo sand.
595	1350	755	Kirtland shales and sands including Farmington sand.
1350	1605	255	Fruitland sands, shales, and coals.
1605	1690	85	Pictured Cliffs sand.
1690	3140	1450	Lewis shale.
3140	4305	1165	Mesaverde sands and shales.
4305	5164	859	Mancos shale.
5164	5960	796	Greenhorn sandy shale.
5960	6072	112	Graneros sands and shales.
6072	6117	45	Dakota sands and shales.
6117	6270	153	Dakota pay sands and shales.

(Tops from Electric Log)

16—43094-4

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

16—42094-2 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 bailing.

E. H. Pipkin Well No. 8-X - Revised location 1070' FNL and 1610' FEL of Section 1, T-27-N, R-11-W. Spudded 12-1/4" hole on January 7, 1961 and drilled to 523'. Set 8-5/8" casing at 523' with 350 sacks cement containing 2 per cent calcium chloride. Circulated cement. After waiting on cement, tested 8-5/8" casing with 500 psi for 15 minutes, which held with no indication of pressure drop. Reduced hole from 12-1/4" to 7-7/8" at 523' and resumed drilling operations.

Total depth 6270'. Set 4-1/2" casing at 6270', cemented first stage with 275 sacks 6 per cent gel cement with 1-1/2 pounds Tuf Plug per sack, followed by 100 sacks neat cement. Tested casing with 3000 psi for 15 minutes, which held with no indication of pressure drop. Waited on cement 4 hours. Cemented second stage with 150 sacks 6 per cent gel cement. Tested casing with 3000 psi for 15 minutes, which held with no indication of pressure drop. Drilled DV tool at 1798' and cleaned out to plug back depth 6235'. Released rig January 20, 1961. Preparing for completion operations.

Plug back depth 6235' - tested casing with 3000 psi, which held with no indication of pressure drop. Spotted 500 Gallons 15 per cent acid. Ran correlation log. Perforated 6194-6206 with 6 shots per foot. Attempted to frac. Breakdown pressure 3900 psi, injection rate 22 barrels per minute at 3000 psi. Pumped additional 250 gallons 15 per cent acid. Sandwater fracked with 25,200 gallons water with 1 per cent calcium chloride and 7 pounds per 1000 gallons Western J-2 gelling agent and 18,000 pounds sand. Landed 2" tubing at 6152'. Pitot test February 2, 1961, after blowing 5½ hours 492 MCF per day with tubing pressure flowing 30 psi and casing pressure flowing 180 psi. Rigged up pulling unit to kill lower Dakota Zone and proceed with completion in upper Dakota section. Killed well with water. Ran retrievable bridge plug on tubing and set at 6180'. Tested bridge plug with 3000 psi, which held with no indication of pressure drop. Spotted 500 gallons 15 per cent spearhead acid. Perforated upper Dakota with 6 shots per foot 6120-6126, 6159-6163. Sandwater fracked with 40,000 gallons water with 7 pounds per 1000 gallons Western J-2 gelling agent with 1 per cent calcium chloride, and 40,000 pounds sand. Breakdown pressure 1800 psi, average injection rate 56 barrels per minute. Pulled bridge plug and reran tubing and set at 6087'.

E. H. Pipkin Well number 8-X was completed February 13, 1961, as shut in Basin Dakota Field Development Gas well. Preliminary Test 1304 MCF per day. Tubing pressure flowing 95 psi, casing pressure flowing 395 psi, top Pay Dakota 6116'.