Form 9-330

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

U. S. LAND OFFICE Navajo Tribal
SERIAL NUMBER
LEASE OR PERMIT TO PROSPECT 14-20-603-2198

RECEIVED
AUG 3 1961
OIL CON. COM.
DIST. 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corporation Address Box 480, Farmington, New Mexico
Lessor or Tract Navajo Tribal "H" Field Totah Gallup State New Mexico
Well No. 7 Sec. 24 T. 29N R. 14W Meridian N.M.P.M. County San Juan
Location 2130 ft. [N.] of S Line and 510 ft. [W.] of E Line of Section 24 Elevation 5459 (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 BY R. M. Bauer, Jr.

Date July 25, 1961 Title Senior Petroleum Engineer

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

Commenced drilling June 20, 19 61 Finished drilling July 9, 19 61

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

No. 1, from 5227 to 5233 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
8-5/8"	28.55	8RT	Armco	198	Guide				Surface
4-1/2"	9.5	8RT	CPAI	5318	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"	210	215	Halliburton	2 plug	
4-1/2"	5304	200	Halliburton	2 plug	

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 5314 feet, and from feet to feet
Cable tools were used from feet to feet, and from feet to feet

DATES

Completed as Totah Gallup Field Development well. July 18, 19 61 Put to producing First new oil July 13, 19 61

The production for the first 24 hours was 217 barrels of fluid of which 99.3% was oil; % emulsion; % water; and .2% sediment. Gravity, °Bé. 40.4

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
Rock pressure, lbs. per sq. in. 500

EMPLOYEES

C. B. Sandefer, Driller B. W. Farris, Driller
James Smith, Driller Pete Estes, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1110	1110	Surface sands and shales including Fruitland and Farmington zones.
1110	1312		Pictured cliffs sand.
1312	2658		Lewis shale.
2658	3910		Mesaverde sands and shales.
3910	4812		Mancos shale.
4812	5180		Gallup sand and shales.
5180	5314		Gallup pay sands.
			(tops from "E" log)

[OVER]

16—48094-4

HISTORY OF OIL OR GAS WELL

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

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.

Navajo Tribal "H" No. 7 - Spudded 12¼" hole June 20, 1961. Set 8-5/8" casing at 210' with 215 sacks cement containing 2 percent Calcium Chloride. Circulated 15 sacks of cement. After waiting on cement 12 hours, tested 8-5/8" casing with 400 psi for 20 minutes, which held with no indication of pressure drop. Resumed Drilling operations.

Core No. 1 - 5155-5174'. Recovered 19' shale.

Core No. 2 - 5174'-5184'. Recovered 10' as follows: 5' shale with scattered thin sand laminations broken and fractured 1' shaly sand, 3' sand with occasional shale specks and nodules, fair porosity and permeability, good bleed, strong odor, 1' tight sand.

Set 4½" casing at 5304' with 125 sacks of cement containing 6 percent gel with 1½ pounds medium Tuf Plug per sack followed by 75 sacks neat cement. Tested 4½" casing with 3000 psi for 15 minutes, which held with no indication of pressure drop. Waiting on completion unit.

Perforated with 4 shots per foot 5227-5233'. Sand oil fracked with 18,100 gallons oil containing 50 pounds Adomite Mark II and 5 gallons G-15 per 1000 gallons and 15,000 pounds sand. Pressures were: Breakdown 1700 psi, maximum treating 3150 psi, minimum treating 2900 psi, and average treating 3000 psi. Average injection rate 32 barrels per minute. Instant shut in pressure 1450 psi.

Completed as Totah Gallup Field Development well July 18, 1961. Potential test July 17, 1961 flow 217 barrels of oil in 24 hours. Tubing pressure flowing 140 psi and casing pressure flowing 500 psi on 28/64" choke. Top pay Gallup 5180'. Estimated allowable 164 barrels of oil per day effective July 13, 1961

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