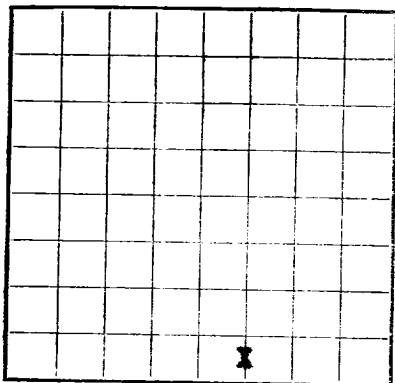




LOCATE WELL CORRECTLY

U. S. LAND OFFICE **Navajo Tribal**SERIAL NUMBER **14-23-603-2199**

LEASE OR PERMIT TO PROSPECT

Navajo Tribal #1 No. 6UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **Pan American Petroleum Corporation** Address **Box 480, Farmington, New Mexico**
Lessor or Tract **Navajo Tribal #5** Field **Cha Cha Gallup** State **New Mexico**
Well No. **6** Sec. **22** T. **29N** R. **14E** Meridian **N.M.P.M.** County **San Juan**
Location **480** ft. **N.** of **3** Line and **1900** **E.** of **3** Line of **Section 22** Elevation **5697** (DF)
(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

R. M. Bahr

Date **December 8, 1960**Title **Area Engineer**

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

Commenced drilling **November 15**, 19 **60** Finished drilling **November 26**, 19 **60**

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **5202** to **5298** 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—	
8-5/8"	26	5RT	J-55	189	Guide				Surface
4-1/2"	9.5	5RT	J-55	5421	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"	202	160 sacks cement	Halliburton 1 plug		
4-1/2"	5403	290 sacks cement	Halliburton 2 plug		

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 _____ feet to _____ feet, and from _____ feet to _____ feet

Cable tools were used from **0** feet to **5405** feet, and from _____ feet to _____ feet

DATES

Completed as flowing oil well, Cha Cha Gallup Put to producing **December 8**, 19 **60** Date first new oil produced, _____

The production for the first 24 hours was _____ barrels of fluid of which **December 4**, **60** % was oil; _____ % emulsion; _____ % water; and _____ % sediment. **177** Gravity, °Bé. **99.8**

If gas well, cu. ft. per 24 hours **2** Gallons gasoline per 1,000 cu. ft. of gas **43.80 API**

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

_____, Driller _____, Driller

M. D. Ebersold**James Smith****R. D. Davis****Bert W. Farris**

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1176	1176	Surface sands and shales including Fruitland and Farmington zones.
1176	1323	147	Pictured Cliffs sands and shales.
1323	2340	1017	Lewis shale.
2340	3995	1655	Mesaverde sands, shales and coals.
3995	4918	923	Mancos shale.
4918	5250	332	Gallup sands and shales.
5250	5348	98	Gallup pay sands and shales.
			(Tops from E log)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

1. The back depth 5368'. Run collarless log. 4 shot collarless callup with 6 shots
 2. Run log 5284.53'. Shot log checked 4449.2, 505 gallons oil and 99,000 pounds
 sand. Mixed 750 pounds asphaltic Mark II with 95 gallons #1 in free fluid.
 3. Breakdown pressure 1800 psi, at 1300 psi, average circulating pressure 2400 psi.
 4. Average injection rate 30 barrels per minute. Loaded 2-9/8" casing 2933'.
 5. Completed as flowing oil well December 8, 1960, CMA CMA callup field. Potential
 6. Last December 8, 1960, flowed 177 barrels oil per day with 19/64" choke.

Spudded 12-1/4" hole on November 15, 1960, and drilled to 202'. Set 8-5/8" casing at 2-21' with 160 sacks cement containing 2% calcium chloride. Circulated 15 sacks of cement. After waiting on cement, tested 8-5/8" casing with 500 psi for 30 minutes, which held with no indication of pressure drop. Reduced hole to 7-7/8" at 202' and resumed drilling operations.

IMPORTANT WATER SANDS

Total depth 5405'. Set 4-1/2" casing at 5403' with 175 sacks 6 1/2 gal cement with 1-1/2 pounds medium fur line per sack followed by 75 sacks neat cement. Pumped plug down with 300 gallons 15% HCL. Hatched 15% HCL. Tested casing with 3000 psi for 30 minutes, which held with no indication of pressure drop. Released

total 16 November 27, 1960.

(Derrick No. 24)

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of re-drilling, 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 "added, cracked" or left in, state well, give the 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
1000	1010	10	Gravelly sand
1010	1020	10	Gravelly sand
1020	1030	10	Gravelly sand
1030	1040	10	Gravelly sand
1040	1050	10	Gravelly sand
1050	1060	10	Gravelly sand
1060	1070	10	Gravelly sand
1070	1080	10	Gravelly sand
1080	1090	10	Gravelly sand
1090	1100	10	Gravelly sand
1100	1110	10	Gravelly sand
1110	1120	10	Gravelly sand
1120	1130	10	Gravelly sand
1130	1140	10	Gravelly sand
1140	1150	10	Gravelly sand
1150	1160	10	Gravelly sand
1160	1170	10	Gravelly sand
1170	1180	10	Gravelly sand
1180	1190	10	Gravelly sand
1190	1200	10	Gravelly sand
1200	1210	10	Gravelly sand
1210	1220	10	Gravelly sand
1220	1230	10	Gravelly sand
1230	1240	10	Gravelly sand
1240	1250	10	Gravelly sand
1250	1260	10	Gravelly sand
1260	1270	10	Gravelly sand
1270	1280	10	Gravelly sand
1280	1290	10	Gravelly sand
1290	1300	10	Gravelly sand
1300	1310	10	Gravelly sand
1310	1320	10	Gravelly sand
1320	1330	10	Gravelly sand
1330	1340	10	Gravelly sand
1340	1350	10	Gravelly sand
1350	1360	10	Gravelly sand
1360	1370	10	Gravelly sand
1370	1380	10	Gravelly sand
1380	1390	10	Gravelly sand
1390	1400	10	Gravelly sand
1400	1410	10	Gravelly sand
1410	1420	10	Gravelly sand
1420	1430	10	Gravelly sand
1430	1440	10	Gravelly sand
1440	1450	10	Gravelly sand
1450	1460	10	Gravelly sand
1460	1470	10	Gravelly sand
1470	1480	10	Gravelly sand
1480	1490	10	Gravelly sand
1490	1500	10	Gravelly sand
1500	1510	10	Gravelly sand
1510	1520	10	Gravelly sand
1520	1530	10	Gravelly sand
1530	1540	10	Gravelly sand
1540	1550	10	Gravelly sand
1550	1560	10	Gravelly sand
1560	1570	10	Gravelly sand
1570	1580	10	Gravelly sand
1580	1590	10	Gravelly sand
1590	1600	10	Gravelly sand
1600	1610	10	Gravelly sand
1610	1620	10	Gravelly sand
1620	1630	10	Gravelly sand
1630	1640	10	Gravelly sand
1640	1650	10	Gravelly sand
1650	1660	10	Gravelly sand
1660	1670	10	Gravelly sand
1670	1680	10	Gravelly sand
1680	1690	10	Gravelly sand
1690	1700	10	Gravelly sand
1700	1710	10	Gravelly sand
1710	1720	10	Gravelly sand
1720	1730	10	Gravelly sand
1730	1740	10	Gravelly sand
1740	1750	10	Gravelly sand
1750	1760	10	Gravelly sand
1760	1770	10	Gravelly sand
1770	1780	10	Gravelly sand
1780	1790	10	Gravelly sand
1790	1800	10	Gravelly sand
1800	1810	10	Gravelly sand
1810	1820	10	Gravelly sand
1820	1830	10	Gravelly sand
1830	1840	10	Gravelly sand
1840	1850	10	Gravelly sand
1850	1860	10	Gravelly sand
1860	1870	10	Gravelly sand
1870	1880	10	Gravelly sand
1880	1890	10	Gravelly sand
1890	1900	10	Gravelly sand</