

Window Rock, Ariz.

U. S. LAND OFFICE

SERIAL NUMBER

14-20-603-5024

LEASE OR PERMIT TO PROSPECT

Navajo Tract #20

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Amerada Petroleum Corporation Address Box 1469, Durango, Colorado
Lessor or Tract Federal Gov't (Navajo) Field Wildcat-Pajarito State New Mexico
Well No. 1 Sec. 31 T. 29N R. 17W Meridian BSPM County San Juan
Location 660 ft. N. of S Line and 660 ft. W. of E Line of Sec. 31 Elevation 5239'
(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

D. F. Purse

Date June 4, 1963Title Foreman

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

Commenced drilling March 2, 19 63 Finished drilling May 11, 19 63

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6916' to 7344' 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 546' to 571' 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—	
<u>8-5/8"</u>	<u>21.4</u>	<u>8</u>	<u>Halliburton</u>	<u>400</u>	<u>Halliburton</u>	<u>Cement circulated</u>			
<u>6-5/8"</u>	<u>21.4</u>	<u>8</u>	<u>Halliburton</u>	<u>100</u>	<u>Halliburton</u>				
<u>4-1/2"</u>	<u>21.4</u>	<u>8</u>	<u>Halliburton</u>	<u>185</u>	<u>Halliburton</u>				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8-5/8"</u>	<u>614'</u>	<u>400</u>	<u>Halliburton</u>	<u>Cement circulated</u>	
<u>6-5/8"</u>	<u>644'</u>	<u>100</u>	<u>Halliburton</u>		
<u>4-1/2"</u>	<u>8100'</u>	<u>185</u>	<u>Halliburton</u>		

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
<u>See below</u>						

TOOLS USED

Rotary tools were used from 0 feet to 8101 TD feet, and from _____ feet to _____ feet

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

DATES

FIRST FULL 24 HOURS TEST

May 27 & 28, 19 63 Put to producing May 23, 19 63

The production for the first 24 hours was 816 barrels of fluid of which 98.2 % was oil; _____ %
emulsion; 1.8 % water; and sediment sediment. Gravity, °Bé. 44

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

E. E. Holbrook, Driller W. W. Hickel, DrillerW. A. Davis, Driller G. A. Beckman, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0'</u>	<u>1692'</u>	<u>1692'</u>	<u>Sand & Shale</u>
<u>1492</u>	<u>1849</u>	<u>157</u>	<u>Sand, shale & chert</u>
<u>1849</u>	<u>3066</u>	<u>1217</u>	<u>Sand, shale & lime</u>
<u>3066</u>	<u>3684</u>	<u>618</u>	<u>Sand & shale</u>
<u>3684</u>	<u>4312</u>	<u>628</u>	<u>Sand, shale & chert</u>
<u>4312</u>	<u>5271</u>	<u>959</u>	<u>Sand & shale</u>
<u>5271</u>	<u>5473</u>	<u>202</u>	<u>Sand & sandstone</u>
<u>5473</u>	<u>7314</u>	<u>1841</u>	<u>Sand, shale & lime</u>
<u>7314</u>	<u>8094</u>	<u>780</u>	<u>Lime, shale & chert</u>
<u>8094</u>	<u>8101</u>	<u>7'</u>	<u>Sand & granite</u>

NO CORES TAKEN

DRILL STEM TEST NO. 1 - From 546' to 571' Gallup Zone, 1/2 hr. test, water to surface in 21 min., flowed 1/4" stream of fresh water remainder of test, recovered 571' of fresh water, no show of oil, gas, no odor or smell.

DRILL STEM TEST NO. 2 - From 701' to 720', 1 hr. test, 3/4" BP, Open tool and had instant blow, continued throughout test. From 1530' of gas, 20' of gas cut mud, 90' of gas cut mud w/ traces oil & 90' of extremely hvv. gas cut mud test. 3% oil. BP 3.704, PP 2.400, SP 607, PP 904, 1/2 hr. BP 3.154, 1 hr. BP 2.217 and 1 1/2 hr. BP 2.704. A 5' gas bubble test in 30 min. 100% gas.

(continued on back)

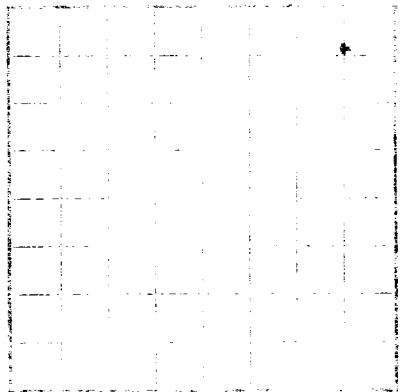
(OVER)

FORMATION RECORD—CONTINUED

15-48094-4

LOG OF OIL OR GAS WELL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



This log is to be filled out by the driller of the well, and should be kept in the well house or other place where it can be readily referred to. It should be filled out as the well is being drilled, and should be kept up to date. It should be filled out in ink, and should be signed by the driller at the bottom of each page. It should be filled out in detail, and should include all the information that is of interest to the owner of the well.

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It is of the greatest importance to have a complete history of the well. Please state in detail the dates of 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 "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, 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

FROM -	TO -	TOTAL FEET	FORMATION
Lower Gallup	534	4707	Chelly
Greenhorn	1257	3987	Lower Chelly
Greenhorn	1321	3920	Upper Hermon
Detrital	1358	3883	Faradox "A"
Wetstone	1578	3663	Faradox "C"
Sunburyville	2634	3009	Hermon
Tuffito	2644	2997	Alcedonian
Entrada	2657	2984	Deming-Kilbert
Horse Back	3985	1296	Precambrian
Shinarump	4083	1158	
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Well was completed in this zone through these perforations. 4 1/2" liner from 1158 to 1296, by Schl. w/ 2 jet holes per foot (48 holes) - no show of oil or gas. 4 1/2" liner from 1296 to 1321, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 1321 to 1358, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 1358 to 1578, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 1578 to 2634, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 2634 to 2644, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 2644 to 2657, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 2657 to 3985, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas. 4 1/2" liner from 3985 to 4083, by Schl. w/ 2 jet holes per ft. by Schl. - no show of oil or gas.