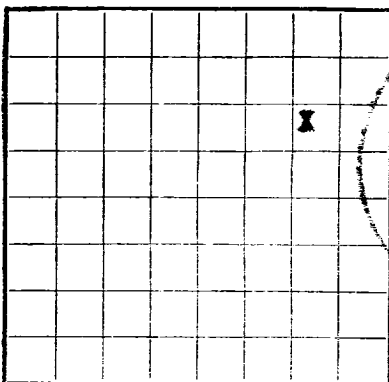
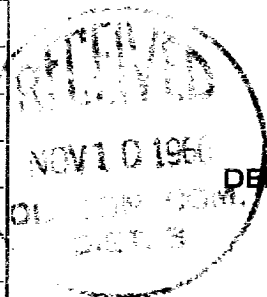




LOCATE WELL CORRECTLY

U. S. LAND OFFICE Navajo Tribal
SERIAL NUMBER 14-20-603-2199
LEASE OR PERMIT TO PROSPECT
Navajo Tribal "E"

UNITED 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 "E" Field Undesignated Gallup State New Mexico
Well No. 5 Sec. 21 T. 29N R. 14W Meridian N.M.P.M. County San Juan
Location 1650 ft. S. of 1 Line and 990 ft. W. of 2 Line of Section 21 Elevation 5251 (RDB)
(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.

Date November 4, 1960 Signed [Signature] Title Area Engineer

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

Commenced drilling October 22, 1960 Finished drilling October 30, 1960

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 480 to 4815 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—	
<u>8-5/8"</u>	<u>21</u>	<u>8-17</u>	<u>J-55</u>	<u>498</u>	<u>Guide</u>				<u>Surf</u>
<u>5-1/2"</u>	<u>14</u>	<u>8-17</u>	<u>J-55</u>	<u>498</u>	<u>Guide</u>				<u>Oil String</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>203'</u>	<u>170 sacks</u>	<u>Halliburton 1 plug</u>		
<u>5-1/2"</u>	<u>4932'</u>	<u>175 sacks</u>	<u>B. J. Service 2 plug</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

TOOLS USED

Rotary tools were used from feet to feet, and from feet to feet
Cable tools were used from 0 feet to 4943 feet, and from feet to feet

DATES

Completed as flowing oil well November 6, 1960 Put to producing November 5, 1960
The production for the first 24 hours was 178 barrels of fluid of which 99.8 % was oil; 60 %
Undesignated Gallup Field emulsion; % water; and % sediment. Gravity, °Bé. 99.8
If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas 42.7° API
Rock pressure, lbs. per sq. in.

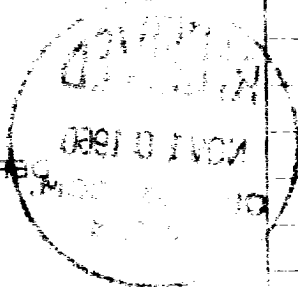
EMPLOYEES

Cotton Clipson, Driller James Smith, Driller
M. O. Ebersold, Driller Bert W. Farris, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>659</u>	<u>659</u>	<u>Surface sands and shales including Fruitland and Farmington zones.</u>
<u>659</u>	<u>689</u>	<u>30</u>	<u>Pictured Cliffs sands and shales.</u>
<u>689</u>	<u>2285</u>	<u>1596</u>	<u>Lewis shale.</u>
<u>2285</u>	<u>3512</u>	<u>1227</u>	<u>Mesaverde sands, shales, and coals.</u>
<u>3512</u>	<u>4432</u>	<u>920</u>	<u>Mancos shale.</u>
<u>4432</u>	<u>4768</u>	<u>336</u>	<u>Gallup sands and shales.</u>
<u>4768</u>	<u>4943</u>	<u>175</u>	<u>Gallup pay sands and shales.</u>
			<u>(Tops from E log)</u>

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

[illegible]

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 damaged 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 pings or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

IT-3304-2 U. S. GOVERNMENT PRINTING OFFICE

MUDLOGGING AND CEMENTING RECORD		MUDLOGGING AND CEMENTING RECORD	
Time	Depth	Time	Depth
10:00	100	10:00	100
10:05	105	10:05	105
10:10	110	10:10	110
10:15	115	10:15	115
10:20	120	10:20	120
10:25	125	10:25	125
10:30	130	10:30	130
10:35	135	10:35	135
10:40	140	10:40	140
10:45	145	10:45	145
10:50	150	10:50	150
10:55	155	10:55	155
11:00	160	11:00	160
11:05	165	11:05	165
11:10	170	11:10	170
11:15	175	11:15	175
11:20	180	11:20	180
11:25	185	11:25	185
11:30	190	11:30	190
11:35	195	11:35	195
11:40	200	11:40	200
11:45	205	11:45	205
11:50	210	11:50	210
11:55	215	11:55	215
12:00	220	12:00	220
12:05	225	12:05	225
12:10	230	12:10	230
12:15	235	12:15	235
12:20	240	12:20	240
12:25	245	12:25	245
12:30	250	12:30	250
12:35	255	12:35	255
12:40	260	12:40	260
12:45	265	12:45	265
12:50	270	12:50	270
12:55	275	12:55	275
13:00	280	13:00	280
13:05	285	13:05	285
13:10	290	13:10	290
13:15	295	13:15	295
13:20	300	13:20	300
13:25	305	13:25	305
13:30	310	13:30	310
13:35	315	13:35	315
13:40	320	13:40	320
13:45	325	13:45	325
13:50	330	13:50	330
13:55	335	13:55	335
14:00	340	14:00	340
14:05	345	14:05	345
14:10	350	14:10	350
14:15	355	14:15	355
14:20	360	14:20	360
14:25	365	14:25	365
14:30	370	14:30	370
14:35	375	14:35	375
14:40	380	14:40	380
14:45	385	14:45	385
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14:55	395	14:55	395
15:00	400	15:00	400
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15:10	410	15:10	410
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15:55	455	15:55	455
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17:50	570	17:50	570
17:55	575	17:55	575
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18:05	585	18:05	585
18:10	590	18:10	590
18:15	595	18:15	595
18:20	600	18:20	600
18:25	605	18:25	605
18:30	610	18:30	610
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18:40	620	18:40	620
18:45	625	18:45	625
18:50	630	18:50	630
18:55	635	18:55	635
19:00	640	19:00	640
19:05	645	19:05	645
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19:20	660	19:20	660
19:25	665	19:25	665
19:30	670	19:30	670
19:35	675	19:35	675
19:40	680	19:40	680
19:45	685	19:45	685
19:50	690	19:50	690
19:55	695	19:55	695
20:00	700	20:00	700
20:05	705	20:05	705
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20:50	750	20:50	750
20:55	755	20:55	755
21:00	760	21:00	760
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21:15	775	21:15	775
21:20	780	21:20	780
21:25	785	21:25	785
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21:35	795	21:35	795
21:40	800	21:40	800
21:45	805	21:45	805
21:50	810	21:50	810
21:55	815	21:55	815
22:00	820	22:00	820
22:05	825	22:05	825
22:10	830	22:10	830
22:15	835	22:15	835
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22:25	845	22:25	845
22:30	850	22:30	850
22:35	855	22:35	855
22:40	860	22:40	860
22:45	865	22:45	865
22:50	870	22:50	870
22:55	875	22:55	875
23:00	880	23:00	880
23:05	885	23:05	885
23:10	890	23:10	890
23:15	895	23:15	895
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23:30	910	23:30	910
23:35	915	23:35	915
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23:45	925	23:45	925
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24:30	970	24:30	970
24:35	975	24:35	975
24:40	980	24:40	980
24:45	985	24:45	985
24:50	990	24:50	990
24:55	995	24:55	995
25:00	1000	25:00	1000