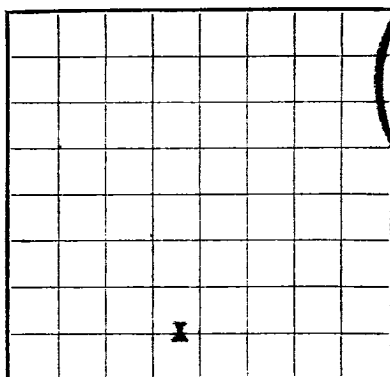
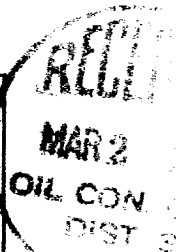


U. S. LAND OFFICE New Mexico  
SERIAL NUMBER NM 077281  
LEASE OR PERMIT TO PROSPECT

LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## LOG OF OIL OR GAS WELL

RECEIVED

Company Pan American Petroleum Corporation Address P. O. Box 487, Farmington, New MexicoLessor or Tract A. A. Alden, AD\* Field Horseshoe Gallup State New MexicoWell No. 2 Sec. 10 T. 30N R. 16E Meridian N.M.P.M. County San JuanLocation 660 ft. [N.] of S Line and 2310 ft. [E.] of W Line of Section 10 Elevation 5410 (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.Signed R. M. Bauer, Jr. ORIGINAL SIGNED BYDate February 29, 1960 Title Area Engineer

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

Commenced drilling February 15, 1960 Finished drilling February 19, 1960

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1492 to 1521 No. 4, from \_\_\_\_\_ to \_\_\_\_\_No. 2, from 1547 to 1555 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"      | 22              | 8RT              | J-55 | 1680   | Guide        |                     |            |     | Oil String |
| 5-1/2"      | 14              | 8RT              | J-55 | 1680   | 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"      | 97'       | 80 sacks of cement     | E J Service 1 Plug |             |                    |
| 5-1/2"      | 1679'     | 130 sacks of cement    | E J Service 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 0 feet to 1693 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

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

Completed as Flowing Oil Well, Horseshoe Gallup FieldFebruary 28, 1960. Potential test flowed \_\_\_\_\_ Put to Date first new oil produced \_\_\_\_\_, 1960

85 BOPD.

The production for the first 24 hours was 85 barrels of fluid of which 99.8 % was oil; \_\_\_\_\_ %emulsion; \_\_\_\_\_ % water; and .2 % sediment. Gravity, °Bé. 41.0 API

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

Rock pressure, lbs. per sq. in. \_\_\_\_\_

## EMPLOYEES

A. Y. Old \_\_\_\_\_, Driller V. F. McKee \_\_\_\_\_, DrillerD. L. Riley \_\_\_\_\_, Driller A. M. Wheeler \_\_\_\_\_, Driller

## FORMATION RECORD

| FROM— | TO—  | TOTAL FEET | FORMATION                         |
|-------|------|------------|-----------------------------------|
| 0     | 164  | 164        | Surface sands and shales          |
| 164   | 1255 | 1091       | Mancos shale                      |
| 1255  | 1446 | 191        | Gallup sands and shales           |
| 1446  | 1545 | 99         | Upper Gallup Fay sand             |
| 1545  | 1693 | 148        | Lower Gallup Fay sands and shales |

(Tops from S Log)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

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 "struck" or left in the wall, 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.

| Casing                                                                                                                                                                                                                                                                                                                                                   | Depth | Pressure per inch | Stroke | Amount | Kind of shoe | Cut and balled from | From | To |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|--------|--------|--------------|---------------------|------|----|
| Spudded 12-1/4" hole on February 15, 1960 and drilled to 971. 8-5/8" casing was set at 971 with 80 sacks neat cement and 10 sacks calcium chloride. Circulated cement. After waiting on cement tested casing with 400 psi for 30 minutes, which held with no indication of pressure drop. Reduced hole to 7-7/8" at 971 and resumed drilling operations. |       |                   |        |        |              |                     |      |    |

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[illegible]