

A coordinate grid with x and y axes ranging from 0 to 10. The grid lines are spaced at intervals of 1 unit. A point is plotted at the coordinates (5, 3) and labeled '25'. Another point is plotted at the coordinates (8, 6) and labeled 'x'.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

# LOG OF OIL OR GAS WELL

## LOCATE WELL CORRECTLY

Company Western Natural Gas Co. Address 823 Midland Tower Bldg. Midland Tex.  
 Lessor or Tract A.A. Carruth Field Wildcat State New Mexico  
 Well No. 1 Sec. 25 T. 9S R. 37E Meridian N.M.P. County Lea  
 Location 1980. {N} of N Line and 669. ft. {E} of E Line of Sec. 25 Elevation 3972  
 (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 Carl K. Bruno

Date 2-15-52 Title Division Engineer

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

Commenced drilling 4-30-51, 1951 Finished drilling 11-23-51, 1951

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 4914 to 4946 G      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 easing | Weight per foot | Threads per inch | Make | Amount | Kind of shoe              | Cut and pulled from | Perforated |            | Purpose |
|-------------|-----------------|------------------|------|--------|---------------------------|---------------------|------------|------------|---------|
|             |                 |                  |      |        |                           |                     | From—      | To—        |         |
| 1 3/8       | 4.8             | 8 R              | Smls | 338.97 | None                      |                     |            |            |         |
| 9 5/8       | 4.0             | 8 R              | Smls | 1190.7 | Life ACH                  |                     |            |            |         |
| 9 5/8       | 4.0             | 8 R              | Smls | 1258.1 | Life ACH                  |                     |            |            |         |
| 9 5/8       | 4.0             | 8 R              | Smls | 1283.0 | Guide Shoe & Float Collar | 4914                | 4946       | Production |         |
| 2 3/8       | 4.7             | 8 R              | Smls | 4974.8 |                           |                     |            |            |         |

## MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used | Mud gravity | Amount of mud used |
|-------------|-----------|------------------------|-------------|-------------|--------------------|
| 13 3/8      | 358'      | 350 W/4% gel           | 1 plug      | 9.5         |                    |
| 9 5/8       | 5002'     | 1100                   | 1 plug      | 10.4        |                    |
|             |           |                        |             |             |                    |
|             |           |                        |             |             |                    |

## PLUGS AND ADAPTERS

Heaving plug—Material 100 Sks. Cement Length 363 ft. Depth set 5211' to 4948'

Adapters—Material 100 Sks. Cement Size 263 ft. 12076' to 11813'

## SHOOTING RECORD

| Size | Shell used | Explosive used | Quantity | Date | Depth shot | Depth cleaned out |
|------|------------|----------------|----------|------|------------|-------------------|
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |
|      |            |                |          |      |            |                   |

## TOOLS USED

Rotary tools were used from 0' feet to 12097 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

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

## DATES

12-7-51, 19 Put to producing Shut-in, 19

The production for the first 24 hours was 43 barrels of fluid of which 67.5 % was oil; ----- %

emulsion; 32.5 % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. 18° API \_\_\_\_\_

If gas well, cu. ft. per 24 hours 1735 MCF Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

Rock pressure, lbs. per sq. in. 1440

## EMPLOYEES

\_\_\_\_\_, Driller \_\_\_\_\_, Driller

\_\_\_\_\_, Driller \_\_\_\_\_, Driller

# FORMATION RECORD

| FROM—  | TO—    | TOTAL FEET | FORMATION                         |
|--------|--------|------------|-----------------------------------|
| 0      | 170    | 170        | Surface Sand & Caliche            |
| 170    | 2220   | 2050       | Sand & Shale                      |
| 2220   | 2710   | 490        | Anhydrite & Shale                 |
| 2710   | 4220   | 1510       | Anhydrite, Salt & Shale           |
| 4220   | 5000   | 780        | Dolomite & Anhydrite              |
| 5000   | 5500   | 500        | Limestone                         |
| 5500   | 7685   | 2185       | Dolomite & Anhydrite              |
| 7685   | 8690   | 1005       | Dolomite & Shale                  |
| 8690   | 9060   | 370        | Dolomite & Chert                  |
| 9060   | 11130  | 2070       | Limestone, Chert & Shale partings |
| 11130  | 11300  | 170        | Lime & Shale                      |
| 11300  | 11540  | 240        | Sand & Shale                      |
| 11540  | 12040  | 500        | Lime, Chert & Shale               |
| 12,040 | 12,097 | 57         | White Dolomite                    |
|        |        |            | Top Permian 2220'                 |
|        |        |            | Top Yates 2930'                   |
|        |        |            | Top San Andres 4220'              |
|        |        |            | Top Glorietta 5630'               |
|        |        |            | Top Clearfork 6310'               |
|        |        |            | Top Tubbs 6995'                   |
|        |        |            | Top Abo Shale 7685'               |
|        |        |            | Top Wolfcamp 9060'                |
|        |        |            | Top Pennsylvanian 9370'           |

Ran Schlumberger Electric Log, Gamma Ray, & Microlog on this well.

[illegible]

LOCATE WELL CORRECTLY

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

Recessed filling 1-30-55  
 Finished drilling 11-22-55  
 Date 2-15-56 Title Division Engineer

OIL OR GAS SANDS OR ZONES

(b) (5) DPP

No. 1, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_

No. 3, from \_\_\_\_\_ to \_\_\_\_\_

No. 4, from \_\_\_\_\_ to \_\_\_\_\_

No. 5, from \_\_\_\_\_ to \_\_\_\_\_

No. 6, from \_\_\_\_\_ to \_\_\_\_\_

## IMPORTANT WATER SANDS

to ..... from 1.00

to ..... from 1.00

## CASING RECORD

[illegible]

This 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 pipes or bridges were put in forest 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

NUDDING AND CEMENTING RECORD

| Amount of acid used | Kind quantity | Method used | Number sacks of cement | Water used |
|---------------------|---------------|-------------|------------------------|------------|
|                     | 1.0           | 1.0         | 1.0                    | 1.0        |
|                     | 1.0           | 1.0         | 1.0                    | 1.0        |

## PLUGS AND ADAPTERS

|                        |                 |        |         |           |                |
|------------------------|-----------------|--------|---------|-----------|----------------|
| Heaving plug - lateral | 100 lbs. Cement | Length | 363 ft. | Depth set | 3211 ft. (215) |
| Adapters - lateral     | 100 lbs. Cement | Size   | 565 ft. |           |                |

SHOOTING RECORD

| Site | Location | Explosive used | Quantity | Date | Depth shot | Depth cleaned out |
|------|----------|----------------|----------|------|------------|-------------------|
|      |          |                |          |      |            |                   |

## TOOLS USED

|                              |        |         |                |         |      |
|------------------------------|--------|---------|----------------|---------|------|
| Reels - tools were used from | 12.197 | feet to | feet, and from | feet to | feet |
| Reels - tools were used from | 12.197 | feet to | feet, and from | feet to | feet |

**DATE**

|         |                                                                                        |                                                 |
|---------|----------------------------------------------------------------------------------------|-------------------------------------------------|
| 18-7-10 | The quantity for the first 24 hours was 43 barrels of fluid of which A.L.S. & was off. | Put to producing.....Khartoum.....19            |
| 20-7-10 | Same as above. No sedimentation observed.                                              | Gravity = .86.....19                            |
| 21-7-10 | No change in production or gravity.                                                    | California Association for 1909 oil of gas..... |

EMPLOYEES

|        |        |  |  |
|--------|--------|--|--|
| Callie | Callie |  |  |
| Callie | Callie |  |  |

FORMATION RECORD

| FROM-  | TO-    | TOTAL FEET | FORMATION                          |
|--------|--------|------------|------------------------------------|
| 18,000 | 17,997 | 3          | White Dolomite                     |
| 17,997 | 17,900 | 97         | Lime, Chert & Shale                |
| 17,900 | 17,800 | 100        | Lime & Shale                       |
| 17,800 | 17,700 | 100        | Lime & Shale                       |
| 17,700 | 17,600 | 100        | Limestone, Chert & Shale fragments |
| 17,600 | 17,500 | 100        | Dolomite & Chert                   |
| 17,500 | 17,400 | 100        | Dolomite & Shale                   |
| 17,400 | 17,300 | 100        | Dolomite & Anhydrite               |
| 17,300 | 17,200 | 100        | Limestone                          |
| 17,200 | 17,100 | 100        | Dolomite & Anhydrite               |
| 17,100 | 17,000 | 100        | Dolomite & Anhydrite               |
| 17,000 | 16,900 | 100        | Anhydrite, Chert & Shale           |
| 16,900 | 16,800 | 100        | Anhydrite & Shale                  |
| 16,800 | 16,700 | 100        | Lime & Shale                       |
| 16,700 | 16,600 | 100        | Top Mississippian                  |
| 16,600 | 16,500 | 100        | Top Devonian                       |
| 16,500 | 16,400 | 100        | Top Abol Shale                     |
| 16,400 | 16,300 | 100        | Top Mississippian                  |
| 16,300 | 16,200 | 100        | Top Mississippian                  |
| 16,200 | 16,100 | 100        | Top Mississippian                  |
| 16,100 | 16,000 | 100        | Top Mississippian                  |
| 16,000 | 15,900 | 100        | Top Mississippian                  |
| 15,900 | 15,800 | 100        | Top Mississippian                  |
| 15,800 | 15,700 | 100        | Top Mississippian                  |
| 15,700 | 15,600 | 100        | Top Mississippian                  |
| 15,600 | 15,500 | 100        | Top Mississippian                  |
| 15,500 | 15,400 | 100        | Top Mississippian                  |
| 15,400 | 15,300 | 100        | Top Mississippian                  |
| 15,300 | 15,200 | 100        | Top Mississippian                  |
| 15,200 | 15,100 | 100        | Top Mississippian                  |
| 15,100 | 15,000 | 100        | Top Mississippian                  |
| 15,000 | 14,900 | 100        | Top Mississippian                  |
| 14,900 | 14,800 | 100        | Top Mississippian                  |
| 14,800 | 14,700 | 100        | Top Mississippian                  |
| 14,700 | 14,600 | 100        | Top Mississippian                  |
| 14,600 | 14,500 | 100        | Top Mississippian                  |
| 14,500 | 14,400 | 100        | Top Mississippian                  |
| 14,400 | 14,300 | 100        | Top Mississippian                  |
| 14,300 | 14,200 | 100        | Top Mississippian                  |
| 14,200 | 14,100 | 100        | Top Mississippian                  |
| 14,100 | 14,000 | 100        | Top Mississippian                  |
| 14,000 | 13,900 | 100        | Top Mississippian                  |
| 13,900 | 13,800 | 100        | Top Mississippian                  |
| 13,800 | 13,700 | 100        | Top Mississippian                  |
| 13,700 | 13,600 | 100        | Top Mississippian                  |
| 13,600 | 13,500 | 100        | Top Mississippian                  |
| 13,500 | 13,400 | 100        | Top Mississippian                  |
| 13,400 | 13,300 | 100        | Top Mississippian                  |
| 13,300 | 13,200 | 100        | Top Mississippian                  |
| 13,200 | 13,100 | 100        | Top Mississippian                  |
| 13,100 | 13,000 | 100        | Top Mississippian                  |
| 13,000 | 12,900 | 100        | Top Mississippian                  |
| 12,900 | 12,800 | 100        | Top Mississippian                  |
| 12,800 | 12,700 | 100        | Top Mississippian                  |
| 12,700 | 12,600 | 100        | Top Mississippian                  |
| 12,600 | 12,500 | 100        | Top Mississippian                  |
| 12,500 | 12,400 | 100        | Top Mississippian                  |
| 12,400 | 12,300 | 100        | Top Mississippian                  |
| 12,300 | 12,200 | 100        | Top Mississippian                  |
| 12,200 | 12,100 | 100        | Top Mississippian                  |
| 12,100 | 12,000 | 100        | Top Mississippian                  |
| 12,000 | 11,900 | 100        | Top Mississippian                  |
| 11,900 | 11,800 | 100        | Top Mississippian                  |
| 11,800 | 11,700 | 100        | Top Mississippian                  |
| 11,700 | 11,600 | 100        | Top Mississippian                  |
| 11,600 | 11,500 | 100        | Top Mississippian                  |
| 11,500 | 11,400 | 100        | Top Mississippian                  |
| 11,400 | 11,300 | 100        | Top Mississippian                  |
| 11,300 | 11,200 | 100        | Top Mississippian                  |
| 11,200 | 11,100 | 100        | Top Mississippian                  |
| 11,100 | 11,000 | 100        | Top Mississippian                  |
| 11,000 | 10,900 | 100        | Top Mississippian                  |
| 10,900 | 10,800 | 100        | Top Mississippian                  |
| 10,800 | 10,700 | 100        | Top Mississippian                  |
| 10,700 | 10,600 | 100        | Top Mississippian                  |
| 10,600 | 10,500 | 100        | Top Mississippian                  |
| 10,500 | 10,400 | 100        | Top Mississippian                  |
| 10,400 | 10,300 | 100        | Top Mississippian                  |
| 10,300 | 10,200 | 100        | Top Mississippian                  |
| 10,200 | 10,100 | 100        | Top Mississippian                  |
| 10,100 | 10,000 | 100        | Top Mississippian                  |
| 10,000 | 9,900  | 100        | Top Mississippian                  |
| 9,900  | 9,800  | 100        | Top Mississippian                  |
| 9,800  | 9,700  | 100        | Top Mississippian                  |
| 9,700  | 9,600  | 100        | Top Mississippian                  |
| 9,600  | 9,500  | 100        | Top Mississippian                  |
| 9,500  | 9,400  | 100        | Top Mississippian                  |
| 9,400  | 9,300  | 100        | Top Mississ                        |