

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bagley Lower Penn Gas Formation Pennsylvanian County Lee  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6-13-58  
Company Amerada Petroleum Corporation Lease State ST#0 Well No. 1  
Unit 0 Sec. 34 Twp. 11 S Rge. 33 E Purchaser El Paso Natural Gas Company  
Casing 5-1/2 Wt. 17 I.D. 4.892 Set at 9775 Perf. 9766' To 9820'  
Tubing 2 1/2 Wt. 3.4 I.D. 1.750 Set at 9744 Perf. Open ended To \_\_\_\_\_  
Gas Pay: From 9766 To 9820 L. 9744 xG .690 -GL 7756 Bar.Press. 13.2  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Gas Oil Dual  
Date of Completion: 12-15-57 Packer 9740 Single-Bradenhead-G. G. 97 G.O. Dual  
Reservoir Temp. 158

## OBSERVED DATA

Tested Through (Choke) (Type Taps \_\_\_\_\_)  
\*Gravity not available. Gravity from Amerada ST#K #1 used in calc.

| No. | Flow Data   |                |             |                      |           | Tubing Data |           | Casing Data |           | Duration of Flow Hr. |
|-----|-------------|----------------|-------------|----------------------|-----------|-------------|-----------|-------------|-----------|----------------------|
|     | (Line) Size | (Orifice) Size | Press. psig | Diff. h <sub>w</sub> | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. |                      |
| SI  |             |                |             |                      |           | 1990        |           |             |           | 72                   |
| 1.  | 4           | 1.250          | 684         | 12.96                | 94        | 1895        |           |             |           | 24                   |
| 2.  | 4           | 1.250          | 676         | 28.09                | 71        | 1742        |           |             |           | 24                   |
| 3.  | 4           | 1.250          | 628         | 51.84                | 66        | 1602        |           |             |           | 24                   |
| 4.  | 4           | 1.250          | 666         | 70.56                | 73        | 1447        |           |             |           | 24                   |
| 5.  |             |                |             |                      |           |             |           |             |           |                      |

## FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w P_f}$ | Pressure psia | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Compress. Factor F <sub>pv</sub> | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|-----------------------|------------------|---------------|----------------------------------|-------------------------------|----------------------------------|------------------------------------|
| 1.  | 9.643                 | 95.04            |               | .9688                            | .9325                         | 1.068                            | 877                                |
| 2.  | 9.643                 | 139.12           |               | .9896                            | .9325                         | 1.076                            | 1392                               |
| 3.  | 9.643                 | 182.89           |               | .9943                            | .9325                         | 1.069                            | 1742                               |
| 4.  | 9.643                 | 218.89           |               | .9877                            | .9325                         | 1.078                            | 2096                               |
| 5.  |                       |                  |               |                                  |                               |                                  |                                    |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 23.6 cf/bbl.  
Gravity of Liquid Hydrocarbons 60 (Assumed) deg. API  
F<sub>c</sub> 13.99 (1-e<sup>-s</sup>) .4135

Specific Gravity Separator Gas .690  
Specific Gravity Flowing Fluid .7389  
P<sub>c</sub> 2005.2 P<sub>c</sub> 4012.8 (Assumed)

| No. | P <sub>max</sub> P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal. P <sub>w</sub> | P <sub>w</sub> /P <sub>c</sub> |
|-----|----------------------------------------|-----------------------------|------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|---------------------|--------------------------------|
| 1.  | 1458.2                                 | 2126.2                      | 12.27            | 150.55                          | 62.25                                                | 3552.5                      | 460.3                                                    | 1325                | 94                             |
| 2.  | 1744.2                                 | 3032.7                      | 18.63            | 347.08                          | 113.52                                               | 3224.2                      | 788.6                                                    | 1786                | 92                             |
| 3.  | 1615.2                                 | 2608.9                      | 24.37            | 593.90                          | 243.58                                               | 2854.5                      | 1158.3                                                   | 1676                | 91                             |
| 4.  | 1460.2                                 | 2132.2                      | 29.32            | 859.66                          | 355.47                                               | 2487.7                      | 1525.1                                                   | 1577                | 91                             |
| 5.  |                                        |                             |                  |                                 |                                                      |                             |                                                          |                     |                                |

Absolute Potential: 4,500 MCFPD; n .754

COMPANY Amerada Petroleum Corporation  
ADDRESS Roswell Star Route - Tatum, New Mexico  
AGENT and TITLE R.E. Breschat - District Engineer  
WITNESSED \_\_\_\_\_  
COMPANY \_\_\_\_\_

REMARKS

AMERADA PET. CORP.  
STATE BT 'O' NO-1

O 34-115-33E LEA CO.  
6-13-58

