

# NEW MEXICO OIL CONSERVATION COMMISSION MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-112  
Revised 9-1-64

|                                                                                                                                   |             |                                    |                           |                                      |                          |                                      |                  |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------|---------------------------|--------------------------------------|--------------------------|--------------------------------------|------------------|-------------------------------------|
| Type Test<br>4 POINT <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                                    |                           |                                      | Test Date<br>1-28-85     |                                      |                  |                                     |
| Company<br>TEXACO Inc.                                                                                                            |             |                                    |                           | Connection<br>TO AIR                 |                          |                                      |                  |                                     |
| Pool<br>SKAGGS ABO                                                                                                                |             |                                    |                           | Formation<br>ABO                     |                          |                                      |                  | Unit<br>N                           |
| Completion Date<br>1-24-85                                                                                                        |             | Total Depth<br>7650.               |                           | Plug Hole 1<br>7630.                 |                          | Elevation<br>3568.                   |                  | Form or Lease Name<br>M.B. WEIR "B" |
| Flow Size<br>7.000                                                                                                                | Wt.<br>26.0 | d<br>6.276                         | Set At<br>7650.           | Perforations:<br>From 7036. To 7078. |                          | Well No.<br>#11                      |                  |                                     |
| Flow Size<br>2.375                                                                                                                | Wt.<br>4.7  | d<br>1.995                         | Set At<br>6938.           | Perforations:<br>From 0. To 0.       |                          | Unit Sec. Twp. Rge.<br>N 12 20S 37E  |                  |                                     |
| Type Well - Single - Brazenhead - G.C. or G.O. Multiple<br>SINGLE                                                                 |             |                                    |                           |                                      | Packer Set At<br>6938.   |                                      | County<br>LEA    |                                     |
| Producing thru<br>TUBING                                                                                                          |             | Reservoir Temp. °F<br>120. # 7057. |                           | Mean Annual Temp. °F<br>60.0         |                          | Env. Press. - P <sub>a</sub><br>13.2 |                  | State<br>NEW MEXICO                 |
| L<br>7057.                                                                                                                        | H<br>7057.  | Cg<br>0.707                        | % CO <sub>2</sub><br>0.68 | % N <sub>2</sub><br>1.54             | % H <sub>2</sub> O<br>0. | Prover<br>0.                         | Meter Run<br>4.0 | Temp.<br>FLANGE                     |

| FLOW DATA |                  |   |              |                 |                      | TUBING DATA |                 | B.H.P. DATA |                 | Duration of Flow |       |
|-----------|------------------|---|--------------|-----------------|----------------------|-------------|-----------------|-------------|-----------------|------------------|-------|
| NO        | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | CHOKE |
| 01        |                  |   |              |                 |                      |             | 1985.           | 48.         |                 |                  | 72.0  |
| 1.        | 4.03 X 2.000     |   |              | 150.            | 6.0                  | 62.         | 1845.           | 48.         |                 | 12/64            | 1.0   |
| 2.        | 4.03 X 2.000     |   |              | 150.            | 10.0                 | 58.         | 1735.           | 48.         |                 | 16/64            | 1.0   |
| 3.        | 4.03 X 2.000     |   |              | 150.            | 16.0                 | 52.         | 1605.           | 49.         |                 | 19/64            | 1.0   |
| 4.        | 4.03 X 2.000     |   |              | 150.            | 30.0                 | 46.         | 1420.           | 49.         |                 | 22/64            | 1.0   |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |       |

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor F <sub>g</sub> | Super. Compres. Factor, F <sub>sp</sub> | Rate of Flow Q, Mscf |
| 1                         | 19.81                 | 31.29            | 163.2                   | 0.9981                | 1.1895                        | 1.0186                                  | 750.                 |
| 2                         | 19.81                 | 40.40            | 163.2                   | 1.0019                | 1.1895                        | 1.0190                                  | 972.                 |
| 3                         | 19.81                 | 51.10            | 163.2                   | 1.0078                | 1.1895                        | 1.0197                                  | 1238.                |
| 4                         | 19.81                 | 69.97            | 163.2                   | 1.1037                | 1.1895                        | 1.0203                                  | 1706.                |
| 5                         |                       |                  |                         |                       |                               |                                         |                      |

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|-------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   | 0.24           | 522.     | 1.35           | 0.964 | 0.                           | 57.0                                  | 0.707                          | XXXXXX                         | 667.              | 387.                 |
| 2   | 0.24           | 518.     | 1.34           | 0.963 |                              |                                       |                                |                                |                   |                      |
| 3   | 0.24           | 512.     | 1.32           | 0.962 |                              |                                       |                                |                                |                   |                      |
| 4   | 0.24           | 506.     | 1.31           | 0.961 |                              |                                       |                                |                                |                   |                      |
| 5   |                |          |                |       |                              |                                       |                                |                                |                   |                      |

| NO | P <sub>1</sub> | P <sub>w</sub> | P <sub>1</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_1^2 - P_w^2} = 2.1065$ | (2) $\left[ \frac{P_c^2}{P_1^2 - P_w^2} \right]^n = 1.7800$ |
|----|----------------|----------------|-----------------------------|-----------------------------|--------------------------------------------|-------------------------------------------------------------|
| 1  | 3453.          | 1876.          | 3518.                       | 537.                        |                                            |                                                             |
| 2  | 3056.          | 1767.          | 3121.                       | 934.                        |                                            |                                                             |
| 3  | 2619.          | 1637.          | 2680.                       | 1375.                       |                                            |                                                             |
| 4  | 2054.          | 1460.          | 2131.                       | 1925.                       |                                            |                                                             |
| 5  |                |                |                             |                             |                                            |                                                             |

|                              |  |               |                        |               |
|------------------------------|--|---------------|------------------------|---------------|
| Absolute Open Flow 3036.     |  | Mold @ 15.025 | Angle of Slope @ 52.25 | Slope, n .774 |
| Remarks: TRACE OF CONDENSATE |  |               |                        |               |
|                              |  |               |                        |               |

|                        |                                 |                                          |                                    |
|------------------------|---------------------------------|------------------------------------------|------------------------------------|
| Approved By Commission | Conducted By<br>RICHARD TOWNLEY | Calculated By<br>BENNETT AND CATHEY INC. | Checked By<br><i>W.H. Baker II</i> |
|------------------------|---------------------------------|------------------------------------------|------------------------------------|

RECEIVED

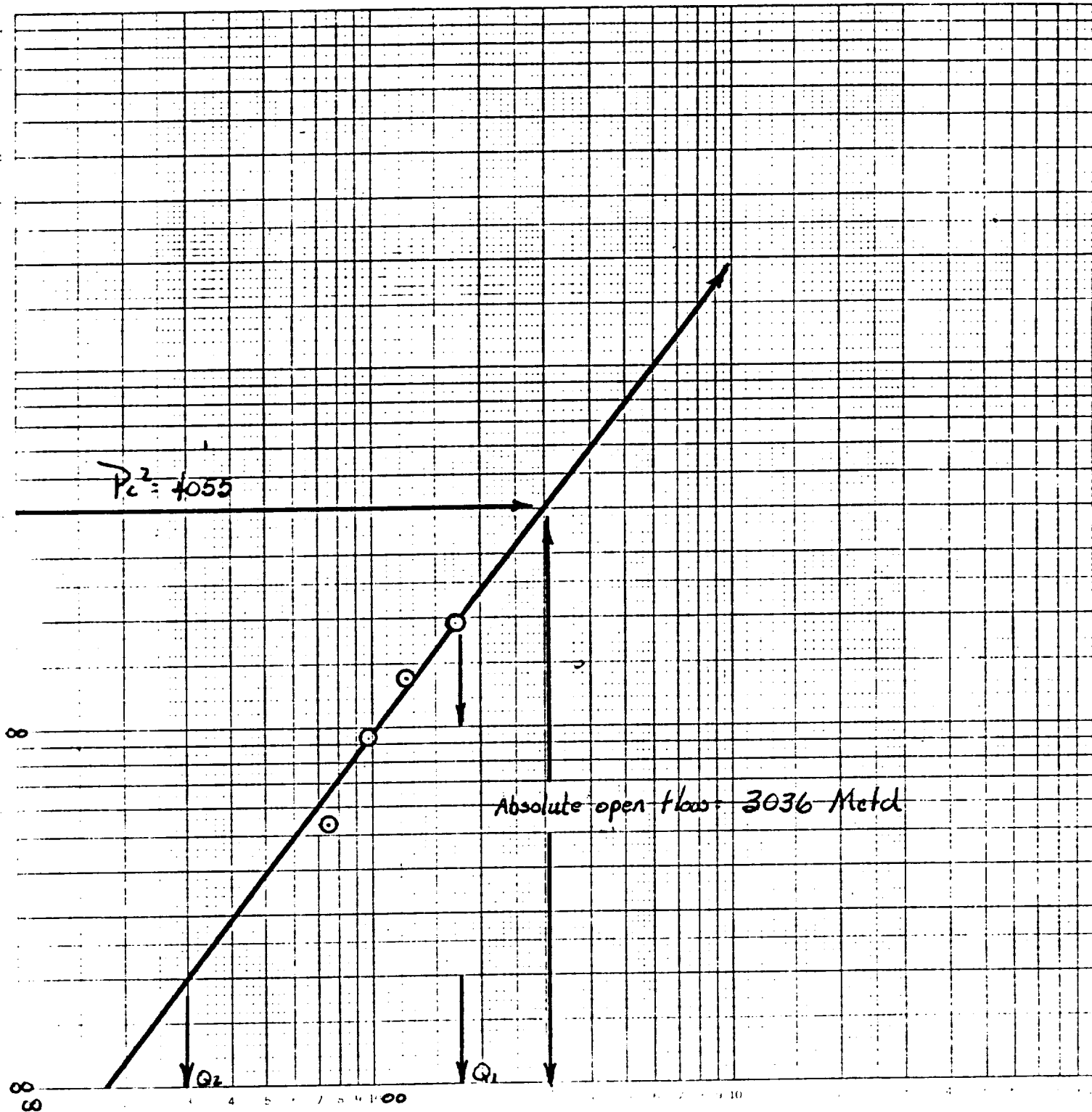
MAR -7 1985

O.C.B.  
HOUSE OFFICE

# BACK PRESSURE CURVE

Operator Texaco Lease MB Weir B Well No. 11  
 County Lea Field Skaggs Abo Location 12 20S 37E  
 Date of Test 1-28-85 Slope "n" 0.774 Angle of Slope 52.25  
 Calc. Abs. Potential 3036 MCF/D

16 3400  
 $(P_c^2 - P_i^2) \text{ \& } (P_c^2 - P_w^2) \text{ in Thousands}$



$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = \underline{2000}$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = \underline{200}$$

$$Q_1 = \underline{1783}$$

$$Q_2 = \underline{300}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{3.2511}$$

$$\text{LOG } Q_2 = \underline{2.4771}$$

$$n = \underline{0.774}$$

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6 AM

9

10

11

NOON

1

2

3

4

5

6 PM

7

8

9

AMERICAN METER  
CHART NO. 14 1500-H

METER

CHART PUT ON  
LOCATION

REMARKS

SINGER  
AMERICAN METER DIVISION

TAKEN OFF

1350  
1200  
1050  
900  
750  
600  
450  
300  
150  
PRESSURE LBS.

1350  
1200  
1050  
900  
750  
600  
450  
300  
150  
PRESSURE LBS.

1350  
1200  
1050  
900  
750  
600  
450  
300  
150  
PRESSURE LBS.

DIFF. IN WATER

DIFF. IN WATER

DIFF. IN WATER

DIFF. IN WATER

DIFF. IN WATER

RECEIVED

MAR -7 1985

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