

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Blinebry Gas Formation Blinebry County Lea  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test Dec. 26-27, 1961  
Company TEXACO Inc. Lease V. M. Henderson Well No. 6MT  
Unit C Sec. 30 Twp. 21S Rge. 37E Purchaser Northern Natural Gas Company  
Casing 5 1/2 OD Wt. 14.0 I.D. 5.012 Set at 6550 Perf. 5539 To 5654  
Tubing 1.315 OD Wt. 1.80 I.D. 1.049 Set at 5112 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 5539 To 5654 L 5112 xG .758 -GL 3875 Bar. Press. 13.2  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Oil-Gas-Oil (Triple)  
Date of Completion: Dec. 26, 1961 Packer 5127 Single-Bradenhead-G. G. or G.O. Dual  
5199 Reservoir Temp. \_\_\_\_\_  
6008  
OBSERVED DATA

Tested Through (RODTEX) (CHUCK) (Meter)Type Taps Flange

| Flow Data |                                     |                                       |                |                         |              | Tubing Data    |              | Casing Data    |              | Duration<br>of Flow<br>Hr. |
|-----------|-------------------------------------|---------------------------------------|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------------|
| No.       | ( <u>RODTEX</u> )<br>(Line)<br>Size | ( <u>CHUCK</u> )<br>(Orifice)<br>Size | Press.<br>psig | Diff.<br>h <sub>w</sub> | Temp.<br>°F. | Press.<br>psig | Temp.<br>°F. | Press.<br>psig | Temp.<br>°F. |                            |
| SI        |                                     |                                       |                |                         |              | <u>1810</u>    |              |                |              | <u>72</u>                  |
| 1.        | <u>3.068</u>                        | <u>2.000</u>                          | <u>39</u>      | <u>14</u>               | <u>19</u>    | <u>1598</u>    | <u>66</u>    |                |              | <u>3</u>                   |
| 2.        | <u>3.068</u>                        | <u>2.000</u>                          | <u>50</u>      | <u>22</u>               | <u>22</u>    | <u>1464</u>    | <u>68</u>    |                |              | <u>2</u>                   |
| 3.        | <u>3.068</u>                        | <u>2.000</u>                          | <u>40</u>      | <u>38</u>               | <u>21</u>    | <u>1352</u>    | <u>68</u>    |                |              | <u>2</u>                   |
| 4.        | <u>3.068</u>                        | <u>2.000</u>                          | <u>46</u>      | <u>56</u>               | <u>36</u>    | <u>1085</u>    | <u>68</u>    |                |              | <u>2</u>                   |
| 5.        | <u>3.068</u>                        | <u>2.000</u>                          | <u>35</u>      | <u>33</u>               | <u>10</u>    | <u>1406</u>    | <u>66</u>    |                |              | <u>21</u>                  |

## FLOW CALCULATIONS

| No. | Coefficient<br>(24-Hour) | $\sqrt{h_w p_f}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Compress.<br>Factor<br>F <sub>pv</sub> | Rate of Flow<br>Q-MCFPD<br>@ 15.025 psia |
|-----|--------------------------|------------------|------------------|----------------------------------------|-------------------------------------|----------------------------------------|------------------------------------------|
| 1.  | <u>27.52</u>             | <u>27.02</u>     | <u>52.2</u>      | <u>1.0419</u>                          | <u>.9258</u>                        |                                        | <u>717.4</u>                             |
| 2.  | <u>27.52</u>             | <u>37.28</u>     | <u>63.2</u>      | <u>1.0387</u>                          | <u>.9258</u>                        |                                        | <u>986.8</u>                             |
| 3.  | <u>27.52</u>             | <u>44.97</u>     | <u>53.2</u>      | <u>1.0398</u>                          | <u>.9258</u>                        |                                        | <u>1191.0</u>                            |
| 4.  | <u>27.52</u>             | <u>57.58</u>     | <u>59.2</u>      | <u>1.0239</u>                          | <u>.9258</u>                        |                                        | <u>1502.0</u>                            |
| 5.  | <u>27.52</u>             | <u>39.89</u>     | <u>48.2</u>      | <u>1.0518</u>                          | <u>.9258</u>                        |                                        | <u>1069.0</u>                            |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 45.540 cf/bbl.  
Gravity of Liquid Hydrocarbons 53.6 deg.  
F<sub>c</sub> 53.26 (1-e<sup>-s</sup>) .234

Specific Gravity Separator Gas .700  
Specific Gravity Flowing Fluid .758  
P<sub>c</sub> 1823.2 P<sub>c</sub><sup>2</sup> 3324

| No. | P <sub>w</sub><br>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><br>(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.<br>P <sub>w</sub> | P <sub>w</sub><br>P <sub>c</sub> |
|-----|-----------------------------------------|-----------------------------|------------------|---------------------------------|---------------------------------------------------------|-----------------------------|----------------------------------------------------------|------------------------|----------------------------------|
| 1.  | <u>1611.2</u>                           | <u>2596</u>                 | <u>38.21</u>     | <u>1460</u>                     | <u>341.6</u>                                            | <u>2938</u>                 | <u>388</u>                                               | <u>1714</u>            | <u>.940</u>                      |
| 2.  | <u>1477.2</u>                           | <u>2182</u>                 | <u>52.56</u>     | <u>2762</u>                     | <u>646.3</u>                                            | <u>2828</u>                 | <u>496</u>                                               | <u>1682</u>            | <u>.922</u>                      |
| 3.  | <u>1365.2</u>                           | <u>1864</u>                 | <u>63.43</u>     | <u>4023</u>                     | <u>941.3</u>                                            | <u>2805</u>                 | <u>519</u>                                               | <u>1675</u>            | <u>.919</u>                      |
| 4.  | <u>1098.2</u>                           | <u>1206</u>                 | <u>80.00</u>     | <u>6400</u>                     | <u>1498.0</u>                                           | <u>2704</u>                 | <u>620</u>                                               | <u>1644</u>            | <u>.902</u>                      |
| 5.  | <u>1419.2</u>                           | <u>2014</u>                 | <u>56.93</u>     | <u>3241</u>                     | <u>758.4</u>                                            | <u>2772</u>                 | <u>552</u>                                               | <u>1665</u>            | <u>.913</u>                      |

Absolute Potential: 6400 MCFPD; n 1.000COMPANY TEXACO Inc.ADDRESS P. O. Box 1270, Midland, TexasAGENT and TITLE F. W. Moore, District Gas Foreman

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressability factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

Toxco Inc.

V. M. Henderson Well No. 6 HT

Pinnaroo Formation

Blinnby Gas Field

Unit C, S-33, T-21N, R-10E

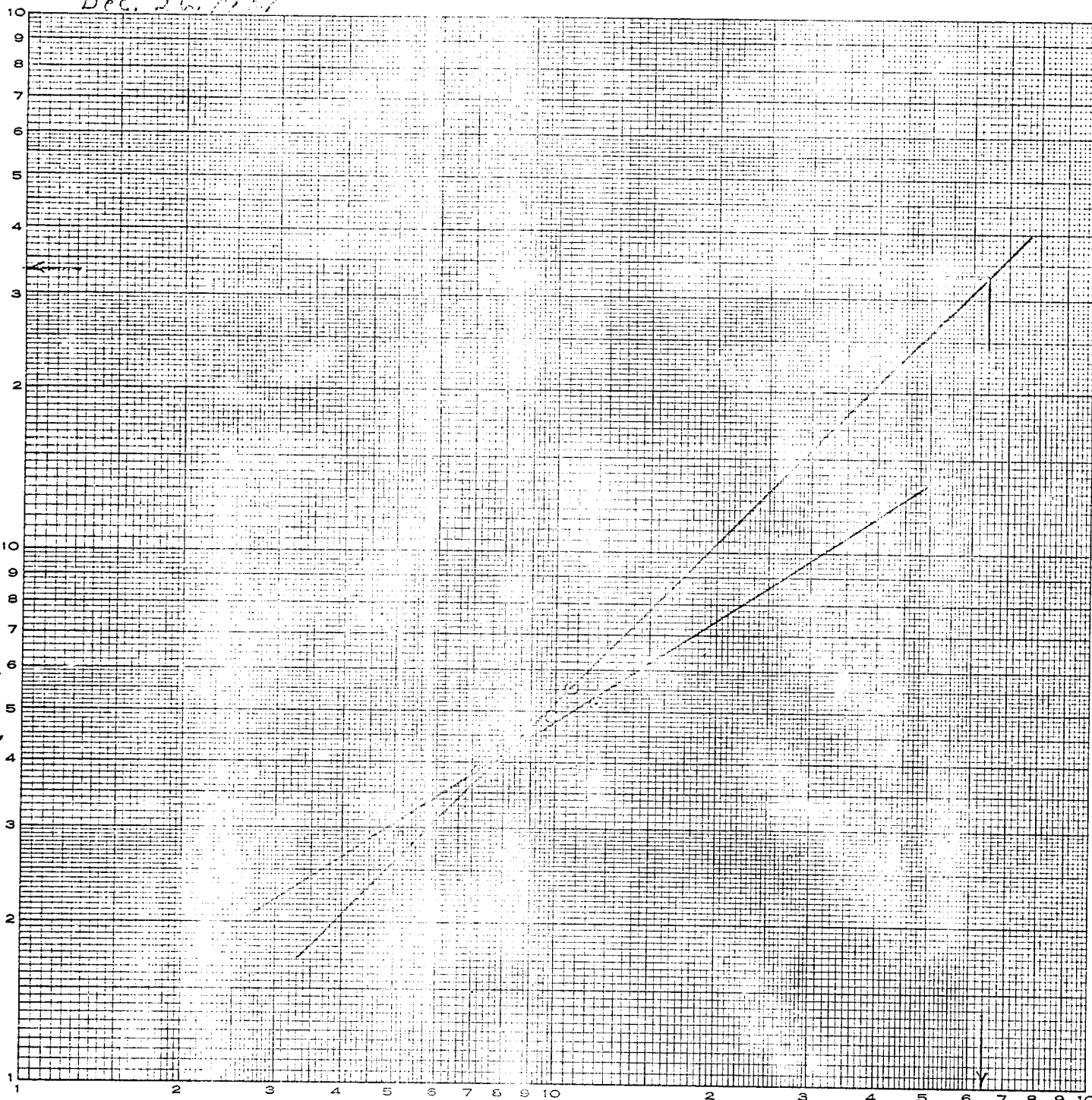
Lea County

Dec. 26, 1951

EUGENE DIETZEN CO.  
MADE IN U. S. A.

NO. 340-L22 DIETZEN GRAPH PAPER  
LOGARITHMIC - 2 CYCLES X 2 CYCLES

$P_c - P_w$



Q - MCFD - 15.025 PSIA

Absolute Potential 6400 MCFD