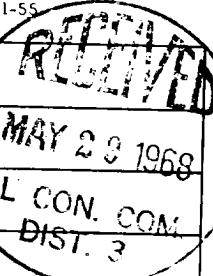


3 NMBCC  
2 EPNG  
1 McHugh  
1 File

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122

Revised 12-1-55



|                                                              |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
|--------------------------------------------------------------|------------------------------------|-----------------------------|------------------------|----------------------------------|------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------|----------------------|--|
| Pool<br><b>Basin</b>                                         |                                    |                             |                        | Formation<br><b>Dakota</b>       |                                                      |                                                                       |                                                           | County<br><b>San Juan</b>      |                                |                      |  |
| Initial<br><b>X</b>                                          |                                    | Annual                      |                        | Special                          |                                                      | Date of Test<br><b>5/25/68</b>                                        |                                                           |                                |                                |                      |  |
| Company<br><b>Jerome P. McHugh</b>                           |                                    |                             |                        | Lease<br><b>Hardie</b>           |                                                      |                                                                       |                                                           | Well No.<br><b>5</b>           |                                |                      |  |
| Unit<br><b>0</b>                                             | Sec.<br><b>23</b>                  | Twp.<br><b>28N</b>          | Range<br><b>8W</b>     |                                  | Purchaser                                            |                                                                       |                                                           |                                |                                |                      |  |
| Casing<br><b>4 1/2"</b>                                      | Wt.<br><b>10.5 &amp; 11.6</b>      | I.D.                        | Set at<br><b>6924'</b> |                                  | Perf.<br><b>6658'</b>                                |                                                                       | To<br><b>6886'</b>                                        |                                |                                |                      |  |
| Tubing<br><b>1 1/4"</b>                                      | Wt.<br><b>2.4</b>                  | I.D.                        | Set at<br><b>6910'</b> |                                  | Perf.<br><b>Open ended</b>                           |                                                                       | To                                                        |                                |                                |                      |  |
| From<br><b>665C'</b>                                         |                                    | To<br><b>6886'</b>          |                        | L<br><b>6910'</b>                |                                                      | G<br><b>0.640</b>                                                     |                                                           | GL<br><b>4422'</b>             |                                |                      |  |
| Gas Pay:                                                     |                                    | Casing<br><b>X</b>          |                        | Tubing                           |                                                      | Type Well — Single — Erden head — G.G. or G.O. Dual<br><b>Single</b>  |                                                           | Bar. Press.                    |                                |                      |  |
| Producing Through:<br><b>5/ 4/68</b>                         |                                    |                             |                        | Packer                           |                                                      | Reservoir Temp.                                                       |                                                           |                                |                                |                      |  |
| OBSERVED DATA                                                |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| Tested Through:                                              |                                    |                             |                        | Prover <input type="checkbox"/>  |                                                      | Choke <b>XX</b>                                                       |                                                           | Meter <input type="checkbox"/> |                                | Type of Taps         |  |
| FLOW DATA                                                    |                                    |                             |                        |                                  |                                                      | TUBING DATA                                                           |                                                           | CASING DATA                    |                                | DURATION OF FLOW HR. |  |
| No.                                                          | (Prover) (Line) Size               | (Choke) (Orifice) Size      | Press. psig.           | Diff. h <sub>w</sub>             | Temp. °F.                                            | Press. psig.                                                          | Temp. °F.                                                 | Press. psig.                   | Temp. °F.                      |                      |  |
| 1.                                                           |                                    |                             |                        |                                  |                                                      | *                                                                     |                                                           | <b>2418</b>                    | <b>---</b>                     |                      |  |
| 2.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 3.                                                           | <b>2"</b>                          | <b>3/4"</b>                 | <b>372</b>             | <b>---</b>                       | <b>68°</b>                                           | *                                                                     | <b>---</b>                                                | <b>---</b>                     | <b>---</b>                     | <b>3 hrs.</b>        |  |
| 4.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 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-MCF PD @ 15.025 psia                       |                                |                                |                      |  |
| 1.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 2.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 3.                                                           | <b>12.365</b>                      |                             | <b>384</b>             | <b>.9924</b>                     | <b>0.9682</b>                                        | <b>1.037</b>                                                          | <b>4731</b>                                               |                                |                                |                      |  |
| 4.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 5.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| PRESSURE CALCULATIONS                                        |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| Gas Liquid Hydrocarbon Ratio _____ cf/bbl.                   |                                    |                             |                        |                                  |                                                      | Specific Gravity Separator Gas _____                                  |                                                           |                                |                                |                      |  |
| Gravity of Liquid Hydrocarbons _____ deg.                    |                                    |                             |                        |                                  |                                                      | Specific Gravity Flowing Fluid _____                                  |                                                           |                                |                                |                      |  |
| F <sub>c</sub> <b>1.01</b> (1-e <sup>-S</sup> ) <b>0.275</b> |                                    |                             |                        |                                  |                                                      | P <sub>c</sub> <b>2430</b> P <sub>c</sub> <sup>2</sup> <b>5904900</b> |                                                           |                                |                                |                      |  |
| No.                                                          | P <sub>w</sub> F <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.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 2.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 3.                                                           | <b>384</b>                         | <b>147,456</b>              | <b>4.77</b>            | <b>22.75</b>                     | <b>6,260</b>                                         | <b>153,716</b>                                                        | <b>5,751,184</b>                                          |                                | <b>1.0267</b>                  |                      |  |
| 4.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |
| 5.                                                           |                                    |                             |                        |                                  |                                                      |                                                                       |                                                           |                                |                                |                      |  |

ABSOLUTE POTENTIAL: **4826** MCFPD; n **0.75** **1.02**

COMPANY **Jerome P. McHugh** WITNESSED \_\_\_\_\_

ADDRESS **Box 234, Farmington, N. M.** COMPANY \_\_\_\_\_

AGENT AND TITLE **T. A. Dugan** Original signed by **T. A. Dugan** \*Tbg. plugged