

|                                                                                 |  |                                 |  |                                             |  |                                                  |  |
|---------------------------------------------------------------------------------|--|---------------------------------|--|---------------------------------------------|--|--------------------------------------------------|--|
| <input type="checkbox"/> Initial                                                |  | <input type="checkbox"/> Annual |  | <input checked="" type="checkbox"/> Special |  | 9-26-77                                          |  |
| Company<br><b>Continental Oil Co.</b>                                           |  |                                 |  | Connection<br><b>New Well</b>               |  |                                                  |  |
| Pool<br><b>East San Juan</b>                                                    |  |                                 |  | Formation<br><b>Pictured Cliffs</b>         |  |                                                  |  |
| Completion Date                                                                 |  | Total Depth<br><b>5434</b>      |  | Plug Back TD<br><b>3561</b>                 |  | Elevation<br><b>6565 GR</b>                      |  |
| Csg. Size<br><b>7.000</b>                                                       |  | Wt.<br><b>20#</b>               |  | Set At<br><b>6.576</b>                      |  | Perforations:<br>From <b>3284</b> To <b>3575</b> |  |
| Tub. Size<br><b>1.660</b>                                                       |  | Wt.<br><b>1.380</b>             |  | Set At<br><b>3542</b>                       |  | Perforations:<br>From To                         |  |
| Type Well - Single - Underground - G.G. or G.G. Multiple<br><b>Gas - Single</b> |  |                                 |  | Packer Set At<br><b>None</b>                |  | County<br><b>Rio Arriba</b>                      |  |
| Producing Thru<br><b>Casing</b>                                                 |  | Reservoir Temp. °F<br><b>a</b>  |  | Mean Annual Temp. °F                        |  | Baro. Press. - P <sub>a</sub><br><b>12.0</b>     |  |
| L                                                                               |  | H                               |  | Gg                                          |  | Meter Run<br><b>2"</b>                           |  |
|                                                                                 |  |                                 |  | % CO <sub>2</sub>                           |  | % H <sub>2</sub> S                               |  |
|                                                                                 |  |                                 |  |                                             |  | Prover<br><b>2"</b>                              |  |

  

| FLOW DATA |                  |   |              |                 |                      |          | TUBING DATA     |          | CASING 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. | Temp. °F |                  |
| SI        |                  |   |              |                 |                      |          |                 |          | <b>1166</b>     |          | <b>SIP</b>       |
| 1.        | 2"               | X | 1/8"         | 1117            |                      | 60°      |                 |          | 1117            |          | 2 hrs.           |
| 2.        | 2"               | X | 3/16"        | 1039            |                      | 60°      |                 |          | 1039            |          | 2 hrs.           |
| 3.        | 2"               | X | 1/4"         | 897             |                      | 60°      |                 |          | 897             |          | 2 hrs.           |
| 4.        | 2"               | X | 5/16"        | 691             |                      | 60°      |                 |          | 691             |          | 2 hrs.           |
| 5.        | 2"               | X | 5/16"        | 159             |                      | 60°      |                 |          | 159             |          | 12 hrs.          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                   |                              |                     |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------|------------------------------|---------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor Fg | Super. Compress. Factor, Fpv | Rate of Flow Q, Mgd |
| 1                         | 0.2648                |                  | 1129                    | 1.000                 | 1.291             | 1.107                        | 427                 |
| 2                         | 0.6082                |                  | 1051                    | 1.000                 | 1.291             | 1.101                        | 909                 |
| 3                         | 1.087                 |                  | 909                     | 1.000                 | 1.291             | 1.095                        | 1397                |
| 4                         | 1.672                 |                  | 703                     | 1.000                 | 1.291             | 1.066                        | 1618                |
| 5                         | 1.672                 |                  | 171                     | 1.000                 | 1.291             | 1.016                        | 375                 |

  

| 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   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 2   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 3   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 4   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 5   |                |          |                |   |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>t</sub> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>t</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|
| 1   |                | 1129           | 1274641                     | 113043                                                    |
| 2   |                | 1051           | 1104601                     | 283083                                                    |
| 3   |                | 909            | 826281                      | 561403                                                    |
| 4   |                | 703            | 1194209                     | 893475                                                    |
| 5   |                | 171            | 29241                       | 1358443                                                   |

  

(1)  $\frac{P_t^2}{P_t^2 - P_w^2} =$

NOTE:  $Q = \left[ \frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$

(2)  $\left[ \frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$

  

|                    |              |                  |          |
|--------------------|--------------|------------------|----------|
| Absolute Open Flow | Mgd @ 15.025 | Angle of Slope θ | Slope, n |
|--------------------|--------------|------------------|----------|

  

Remarks: **Tubing is plugged off. Testing through casing.**

  

|                           |                     |                     |             |
|---------------------------|---------------------|---------------------|-------------|
| Approved By Contribution: | Computed By:        | Checked By:         | Checked By: |
|                           | <b>Fred Hamrick</b> | <b>Fred Hamrick</b> |             |

*NAHRE, ACTEC (2) - USGS, DURANGO (2) - BJA - FILE*