

# OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Revised 4-1-91

30-015-23175

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |  |                                  |                               |                                                  |                                                      |                                  |                                     |
|---------------------------------------------------------------------------------------------------------------------------|--|----------------------------------|-------------------------------|--------------------------------------------------|------------------------------------------------------|----------------------------------|-------------------------------------|
| Operator<br><b>KAISER FRANCIS OIL COMPANY</b>                                                                             |  |                                  |                               | Lease or Unit Name<br><b>PURE GOLD "A" FEDES</b> |                                                      |                                  |                                     |
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                                  |                               | Test Date<br><b>4-29-99</b>                      |                                                      | Well No.<br><b>1</b>             |                                     |
| Completion Date<br><b>3/8/98</b>                                                                                          |  | Total Depth<br><b>14967</b>      |                               | Plug Back TD<br><b>14132</b>                     |                                                      | Elevation<br><b>3354 GR</b>      |                                     |
| Crg. Size<br><b>7 5/8</b>                                                                                                 |  | Wt.<br><b>15.0</b>               | d<br><b>4.408</b>             | Set At<br><b>11868 -</b>                         | Perforations:<br>From: <b>14084</b> To: <b>14100</b> |                                  | County<br><b>Eddy</b>               |
| Log. Size<br><b>2 3/8</b>                                                                                                 |  | Wt.<br><b>4.7</b>                | d<br><b>1.995</b>             | Set At<br><b>14052</b>                           | Perforations:<br>From: <b>-</b> To: <b>-</b>         |                                  | Pool<br><b>W. Sand Dunes Morrow</b> |
| Type Well - Single - Bradenhead - G.G. or G.C. Multiple<br><b>Single</b>                                                  |  |                                  |                               | Packer Set At<br><b>14052</b>                    |                                                      | Formation<br><b>Atoka Morrow</b> |                                     |
| Producing Thru<br><b>Tbg</b>                                                                                              |  | Reservoir Temp. °F<br><b>60°</b> |                               | Mean Annual Temp. °F<br><b>60°</b>               |                                                      | Conn. Press. - P.<br><b>13.2</b> |                                     |
| L<br><b>14092</b>                                                                                                         |  | "<br><b>14092</b>                | G <sub>g</sub><br><b>.586</b> | % CO <sub>2</sub><br><b>.858</b>                 | % N <sub>2</sub><br><b>.496</b>                      | % H <sub>2</sub> S<br><b>0</b>   | Prover<br><b>0</b>                  |
|                                                                                                                           |  |                                  |                               |                                                  |                                                      | Meter Run<br><b>4.026</b>        |                                     |
|                                                                                                                           |  |                                  |                               |                                                  |                                                      | Tags<br><b>F/G</b>               |                                     |

| FLOW DATA |                  |                |                 |          |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|----------------|-----------------|----------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | Orifice X Size | Press. p.s.i.g. | Diff. h. | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| 5:        |                  |                |                 |          |          |                 |          |                 |          |                  |
| 1.        | 14.026 X .500    |                | 342.0           | 2.6      | 71°      | 1795            |          | PKR             |          | 60 min           |
| 2.        | 14.026 X .500    |                | 344.9           | 12.6     | 73°      | 1578            |          |                 |          | 60 min           |
| 3.        | 14.026 X .500    |                | 343.0           | 23.5     | 76°      | 1458            |          |                 |          | 60 min           |
| 4.        | 14.026 X .500    |                | 345.0           | 41.0     | 79°      | 1257            |          |                 |          | 60 min           |
| 5.        |                  |                |                 |          |          |                 |          |                 |          |                  |

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                          |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|------------------------------------------|----------------------|
| NO.                       | COEFFICIENT (24 HOUR) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super. Compress. Factor, F <sub>sp</sub> | Rate of Flow Q, Mcfd |
| 1.                        |                       |                  |                         |                                  |                               |                                          | 53                   |
| 2.                        |                       |                  |                         |                                  |                               |                                          | 106                  |
| 3.                        |                       |                  |                         |                                  |                               |                                          | 142                  |
| 4.                        |                       |                  |                         |                                  |                               |                                          | 188                  |
| 5.                        |                       |                  |                         |                                  |                               |                                          |                      |
| TOTAL FLOW METER          |                       |                  |                         |                                  |                               |                                          |                      |

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio           | N/A  | M <sub>scf</sub> |
|-----|----------------|----------|----------------|---|----------------------------------------|------|------------------|
| 1.  |                |          |                |   | A.P. I. Gravity of Liquid Hydrocarbons | N/A  | Deg              |
| 2.  |                |          |                |   | Specific Gravity Separator Gas         | .586 | XXXXXXXXXX       |
| 3.  | TOTAL FLOW     |          |                |   | Specific Gravity Flowing Fluid         | N/A  | XXXXXX           |
| 4.  |                |          |                |   | Critical Pressure                      | 675  | P.S.I.A.         |
| 5.  |                |          |                |   | Critical Temperature                   | 346  | R                |

| P <sub>c</sub> 1808.2 | P <sub>c</sub> <sup>2</sup> 3269.6 |                |                             |                                                           |                                          |                                                            |  |
|-----------------------|------------------------------------|----------------|-----------------------------|-----------------------------------------------------------|------------------------------------------|------------------------------------------------------------|--|
| NO.                   | P <sub>c</sub> <sup>2</sup>        | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | 1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.976$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 1.740$ |  |
| 1.                    | 2917.9                             | 1708.2         | 2918.1                      | 351.5                                                     |                                          |                                                            |  |
| 2.                    | 2531.9                             | 1591.3         | 2532.4                      | 737.2                                                     |                                          |                                                            |  |
| 3.                    | 2164.4                             | 1471.5         | 2165.2                      | 1104.3                                                    |                                          |                                                            |  |
| 4.                    | 1613.4                             | 1270.8         | 1614.9                      | 1654.7                                                    |                                          |                                                            |  |
| 5.                    |                                    |                |                             |                                                           |                                          |                                                            |  |

|                         |               |                       |               |
|-------------------------|---------------|-----------------------|---------------|
| Absolute Open Flow .327 | Mcfd @ 15.025 | Angle of Slope θ 50.8 | Slope, n .813 |
|-------------------------|---------------|-----------------------|---------------|

Remarks: **\*No liquid made during test.**

|                      |                                          |                               |                            |
|----------------------|------------------------------------------|-------------------------------|----------------------------|
| Approved By Division | Conducted By:<br><b>Pro Well Testing</b> | Calculated By:<br><b>M.B.</b> | Checked By:<br><b>B.M.</b> |
|----------------------|------------------------------------------|-------------------------------|----------------------------|