

Initial  
Deliverability Test

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL DELIVERABILITY TEST REPORT FOR 19 69

Form C122-A  
Revised 1-1-68

|                     |                       |                 |                    |
|---------------------|-----------------------|-----------------|--------------------|
| POOL NAME<br>Blanco | POOL SLOPE<br>n = .85 | FORMATION<br>PC | COUNTY<br>San Juan |
|---------------------|-----------------------|-----------------|--------------------|

|                                              |                               |                             |                                           |                             |                           |
|----------------------------------------------|-------------------------------|-----------------------------|-------------------------------------------|-----------------------------|---------------------------|
| COMPANY<br>El Paso Natural Gas Company       |                               |                             | WELL NAME AND NUMBER<br>Pierce No. 9      |                             |                           |
| UNIT LETTER<br>F                             | SECTION<br>7                  | TOWNSHIP<br>30              | RANGE<br>9                                | PURCHASING PIPELINE<br>EPNG |                           |
| CASING O.D. - INCHES<br>2.875                | CASING I.D. - INCHES<br>2.441 | SET AT DEPTH - FEET<br>3294 | TUBING O.D. - INCHES<br>no tubing         | TUBING I.D. - INCHES        | TOP - TUBING PERF. - FEET |
| GAS PAY ZONE                                 |                               |                             | WELL PRODUCING THRU<br>TUBING             | GAS GRAVITY<br>.652         | GRAVITY X LENGTH<br>2101  |
| FROM 3222                                    | TO 3242                       | CASING XX                   | DATE SHUT-IN PRESSURE MEASURED<br>6-30-69 |                             |                           |
| DATE OF FLOW TEST<br>FROM 8-13-69 TO 8-21-69 |                               |                             |                                           |                             |                           |

PRESSURE DATA - ALL PRESSURES IN PSIA

|                                           |                                               |                                          |                                         |                                               |                                             |                                                              |
|-------------------------------------------|-----------------------------------------------|------------------------------------------|-----------------------------------------|-----------------------------------------------|---------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br>--   | (b) Flowing Tubing Pressure (DWt)<br>--       | (c) Flowing Meter Pressure (DWt)<br>--   | (d) Flow Chart Static Reading<br>--     | (e) Meter Error (Item c - Item d)<br>0        | (f) Friction Loss (a-c) or (b-c)<br>0       | (g) Average Meter Pressure (Integr.)<br>273<br>285           |
| (h) Corrected Meter Pressure (g+e)<br>285 | (i) Avg. Wellhead Press. $P_i = (h+f)$<br>285 | (j) Shut-in Casing Pressure (DWt)<br>853 | (k) Shut-in Tubing Pressure (DWt)<br>-- | (l) $P_c$ = higher value of (i) or (k)<br>853 | (m) Del. Pressure $P_d = 80$<br>682 % $P_c$ | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

FLOW RATE CORRECTION (METER ERROR)

|            |                                   |                                                             |                                                        |                                      |
|------------|-----------------------------------|-------------------------------------------------------------|--------------------------------------------------------|--------------------------------------|
| 10744<br>8 | Integrated Volume - MCF/D<br>1343 | Quotient of $\frac{\text{Item c}}{\text{Item d}}$<br>1.0000 | $\sqrt{\frac{\text{Item c}}{\text{Item d}}}$<br>1.0000 | Corrected Volume<br>$Q = 1343$ MCF/D |
|------------|-----------------------------------|-------------------------------------------------------------|--------------------------------------------------------|--------------------------------------|

WORKING PRESSURE CALCULATION

|                      |                               |                                               |                  |                                |                             |
|----------------------|-------------------------------|-----------------------------------------------|------------------|--------------------------------|-----------------------------|
| $(1-e^{-s})$<br>.142 | $(F_c Q_m)^2 (1000)$<br>55576 | $R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$<br>7892 | $P_i^2$<br>81225 | $P_w^2 = P_i^2 + R^2$<br>89117 | $P_w = \sqrt{P_w^2}$<br>299 |
|----------------------|-------------------------------|-----------------------------------------------|------------------|--------------------------------|-----------------------------|

DELIVERABILITY CALCULATION

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{1343}{\left( \frac{262485}{638492} \right)^n} = \left( \frac{0.4111}{0.4697} \right)^n = 631 \text{ MCF/D}$$

REMARKS:

New Well first delivery July 14, 1969.

SUMMARY

|                |      |       |
|----------------|------|-------|
| Item h         | 285  | Psia  |
| P <sub>c</sub> | 853  | Psia  |
| Q              | 1343 | MCF/D |
| P <sub>w</sub> | 299  | Psia  |
| P <sub>d</sub> | 682  | Psia  |
| D              | 631  | MCF/D |

Company El Paso Natural Gas Company

By

Title

Witnessed By

Company

