

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

Form CI22-A  
Revised 1-1-68

|                    |                       |                     |                      |
|--------------------|-----------------------|---------------------|----------------------|
| POOL NAME<br>Basin | POOL SLOPE<br>n = .75 | FORMATION<br>Dakota | COUNTY<br>Rio Arriba |
|--------------------|-----------------------|---------------------|----------------------|

75-902

|                                                |                               |                                         |                                                   |                                            |                                   |
|------------------------------------------------|-------------------------------|-----------------------------------------|---------------------------------------------------|--------------------------------------------|-----------------------------------|
| COMPANY<br>El Paso Natural Gas                 |                               |                                         | WELL NAME AND NUMBER<br>San Juan 27-4 Unit No. 43 |                                            |                                   |
| UNIT LETTER<br>H                               | SECTION<br>17                 | TOWNSHIP<br>27                          | RANGE<br>4                                        | PURCHASING PIPELINE<br>El Paso Natural Gas |                                   |
| CASING O.D. - INCHES<br>4.500                  | CASING I.D. - INCHES<br>4.012 | SET AT DEPTH - FEET<br>8258             | TUBING O.D. - INCHES<br>2.375                     | TUBING I.D. - INCHES<br>1.995              | TOP - TUBING PERF. - FEET<br>7993 |
| GAS PAY ZONE<br>FROM 8014 TO 8219              |                               | WELL PRODUCING THRU<br>CASING TUBING XX |                                                   | GAS GRAVITY<br>.678                        | GRAVITY X LENGTH<br>5419          |
| DATE OF FLOW TEST<br>FROM 12-13-68 TO 12-21-68 |                               |                                         | DATE SHUT-IN PRESSURE MEASURED<br>10-7-68         |                                            |                                   |

## PRESSURE DATA - ALL PRESSURES IN PSIA

|                                           |                                               |                                           |                                           |                                                |                                            |                                                              |
|-------------------------------------------|-----------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------|--------------------------------------------|--------------------------------------------------------------|
| (a) Flowing Casing Pressure (DWt)<br>456  | (b) Flowing Tubing Pressure (DWt)<br>456      | (c) Flowing Meter Pressure (DWt)<br>2553  | (d) Flow Chart Static Reading<br>2564     | (e) Meter Error (Item c - Item d)<br>2564      | (f) Friction Loss (a-c) or (b-c)<br>1282   | (g) Average Meter Pressure (Integr.)<br>456                  |
| (h) Corrected Meter Pressure (g+e)<br>456 | (i) Avg. Wellhead Press. $P_i = (h+f)$<br>456 | (j) Shut-in Casing Pressure (DWt)<br>2553 | (k) Shut-in Tubing Pressure (DWt)<br>2564 | (l) $P_c$ = higher value of (j) or (k)<br>2564 | (m) Del. Pressure $P_d = 50\% P_c$<br>1282 | (n) Separator or Dehydrator Pr. (DWt) for critical flow only |

## FLOW RATE CORRECTION (METER ERROR)

|                                  |                                                             |                                                        |                                   |
|----------------------------------|-------------------------------------------------------------|--------------------------------------------------------|-----------------------------------|
| Integrated Volume - MCF/D<br>582 | 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 = 582 MCF/D |
|----------------------------------|-------------------------------------------------------------|--------------------------------------------------------|-----------------------------------|

## WORKING PRESSURE CALCULATION

|                      |                               |                                               |                   |                                 |                             |
|----------------------|-------------------------------|-----------------------------------------------|-------------------|---------------------------------|-----------------------------|
| $(1-e^{-s})$<br>.326 | $(F_c Q_m)^2 (1000)$<br>29943 | $R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$<br>9761 | $P_t^2$<br>207936 | $P_w^2 = P_t^2 + R^2$<br>217697 | $P_w = \sqrt{P_w^2}$<br>467 |
|----------------------|-------------------------------|-----------------------------------------------|-------------------|---------------------------------|-----------------------------|

## DELIVERABILITY CALCULATION

|                                                                       |                                                       |                                                       |                  |
|-----------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------|
| $D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$<br>582 | $\left( \frac{4930572}{6356399} \right)^n =$<br>.7756 | $\left( \frac{4930572}{6356399} \right)^n =$<br>.8264 | $=$<br>481 MCF/D |
|-----------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------|

## REMARKS:

New well first delivered 11-18-68

## SUMMARY

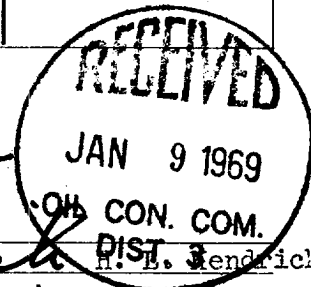
Item h 456 Psia  
P<sub>c</sub> 2564 Psia  
Q 582 MCF/D  
P<sub>w</sub> 467 Psia  
P<sub>d</sub> 1,282 Psia  
D 481 MCF/D

Company EL PASO NATURAL GAS

Title Regional Well Test Engineer

Witnessed By

Company



OK