

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(To be used for Fruitland, Pictured Cliffs, Mesaverde, & all Dakota  
except Barker Dome Storage Area)

POOL BLANCO - MESAVERDE FORMATION MESAVERDE COUNTY SAN JUAN  
PURCHASING PIPELINE SOUTHERN UNION GATHERING COMPANY DATE TEST FILED 1/11/57  
OPERATOR DELHI \* TAYLOR OIL CORP. LEASE LANSON WELL NO. 1  
UNIT X SEC. 10 TWP. 30N RGE. 8W PAY ZONE: From 434 To 443  
\*CASING: OD 7 5/8 WT. 26.40 SET AT 0-283 1/2 TUBING: OD 2.375 WT. 4.70 T.Perf. 4975  
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED 0.659 ESTIMATED  
DATE OF FLOW TEST: From 12/23/56 To 12/31/56 \*Date S.I.P. MEASURED 1/7/57  
METER RUN SIZE 4.626 ORIFICE SIZE 2.000 TYPE CHART NORMAL TYPE TAPS FLANGE

OBSERVED DATA

Flowing casing pressure (Dwt) 730 psig + 12 = 742 psia (a)  
Flowing tubing pressure (Dwt) 628 psig + 12 = 640 psia (b)  
Flowing meter pressure (Dwt) 622 psig + 12 = 634 psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken:  
Normal chart reading. . . . . 620 psig + 12 = 632 psia (d)  
Square root chart reading ( ) <sup>2</sup> x spring constant =          psia (d)  
Meter error (c) - (d) or (d) - (c). . . . . ± = 8 psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing... = 6 psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading. . . . . 632 psig + 12 = 644 psia (g)  
Square root chart average reading ( ) <sup>2</sup> x sp. const. =          psia (g)  
Corrected seven day avge. meter press. (pf) (g) + (e) = 646 psia (h)  
P<sub>t</sub> = (h) + (f) . . . . . = 652 psia (i)  
Wellhead casing shut-in pressure (Dwt) 957 psig + 12 = 969 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 957 psig + 12 = 969 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through. . . . . = 969 psia (l)  
Flowing Temp. (Meter Run). . . . . 54 °F + 460 = 514 °Abs (m)  
P<sub>d</sub> =  $\frac{1}{2}$  P<sub>c</sub> =  $\frac{1}{2}$  (l) . . . . . = 484.5 psia (n)

\*Linear 15.504 2757-5079'

FLOW RATE CALCULATION

$$Q = \frac{2644}{(\text{integrated})} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{25.179}{25.140} = \frac{1.0015}{1} \right)^* = 2,668 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2,668}{\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}} = \frac{2,668}{\left[ \frac{744.221}{380.459} \right]^{1/1.5069}} = 4,234 \text{ MCF/da.}$$

SUMMARY

|                  |              |         |              |                                       |
|------------------|--------------|---------|--------------|---------------------------------------|
| P <sub>c</sub> = | <u>969</u>   | psia    | Company      | <u>DELHI - TAYLOR OIL CORPORATION</u> |
| Q =              | <u>2,668</u> | Mcf/day | By           | <u>J.E. Kroger</u>                    |
| P <sub>w</sub> = | <u>747</u>   | psia    | Title        | <u>Dist. Engineer</u>                 |
| P <sub>d</sub> = | <u>484.5</u> | psia    | Witnessed by | <u>        </u>                       |
| D =              | <u>4,234</u> | Mcf/day | Company      | <u>        </u>                       |

\* This is date of completion test.

\* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

| GL   | (1-e <sup>-S</sup> ) | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup><br>R <sup>2</sup> | (1-e <sup>-S</sup> ) | P <sub>t</sub> <sup>2</sup><br>(Column i) | P <sub>t</sub> <sup>2</sup> + R <sup>2</sup> | P <sub>w</sub> |
|------|----------------------|---------------------------------|---------------------------------------------------|----------------------|-------------------------------------------|----------------------------------------------|----------------|
| 3279 | 0.212                | 629.234                         | 133.398                                           |                      | 425.104                                   | 558.502                                      | 747            |

