3-NMOCC

1-International

1-Lloyd

1-Murphy 1-Southern Union

1-El Paso

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

1-File Revised 12-1-55 MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS Formation Dakota County San Juan Pool Basin Initial X Annual Special Date of Test 10-22-61 Company International Oil Corp. Lease Forelson Well No. 1-8 Unit J Sec. 8 Twp. 291 Rge. 11W Purchaser Southern Union Gas Co. Casing 4-1/2 Wt. 10.5 I.D. Set at 6650 Perf. 6328 To 6521 Tubing 2-3/8 Wt. 4.7 I.D. Set at 6505 Perf. 6503 To 6505 Gas Pay: From 6327 To 6521 L xG 0.680 -GL Bar.Press. Producing Thru: Casing Tubing T Type Well Single-Gas

Single-Bradenhead-G. G. or G.O. Dual Date of Completion: 10-5-61 Packer \_\_\_Reservoir Temp.\_ OBSERVED DATA Tested Through (Choke) Type Taps\_ Flow Data Tubing Data Casing Data (Prover) (Choke) Press. Diff. Temp. Press. Temp. Press. Temp. Duration No. (Line) (Orifice) of Flow Size Size  $\circ_{\mathbb{F}}$ . oF. psig h, OF. psig psig Hr. 2031 2109 2" 0.750 310 76 790 3 hrs. FLOW CALCULATIONS Coefficient Pressure Flow Temp. Gravity Compress. Rate of Flow No. Factor Factor Q-MCFPD Factor (24-Hour) √ h<sub>w</sub>p<sub>f</sub> Ft psia  $\mathbf{F}_{\mathbf{p}\underline{\mathbf{v}}}$ Fg @ 15.025 psia 12.3650 322 0.9850 0.9393 1.033 3805 PRESSURE CALCULATIONS Gas Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Gravity of Liquid Hydrocarbons\_\_\_ Specific Gravity Flowing Fluid
Pc 2121 Pc 4499  $P_{\mathbf{w}}$  $(\mathbf{F_cQ})^2$ No.  $P_{t}^{2}$  $(F_cQ)^2$  $F_{c}Q$  $P_c^2 - P_w^2$  $P_{w}2$  $\frac{P_{\bm{w}}}{P_{\bm{C}}}$ Cal. Pt (psia) (l-e-s) 802 643 3856 1.1668 Absolute Potential: 4271 COMPANY International Oil Gorp. ADDRESS 1007 N. Dustin, Farmington, New Mexico AGENT and TITLE Original signed by T. A. Dugan Engineer WITNESSED COMPANY REMARKS

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

- Q I Actual rate of flow at end of flow period at W. H. working pressure ( $P_{\rm W}$ ). MCF/da. @ 15.025 psia and 600 F.
- $P_c$  72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- $P_{\mathbf{w}}^{-}$  Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- Pf Meter pressure, psia.
- $h_{\mbox{\scriptsize W}}$ Differential meter pressure, inches water.
- Fg Gravity correction factor.
- $F_t$  Flowing temperature correction factor.
- Fpv Supercompressability factor.
- n I Slope of back pressure curve.

Note: If  $P_{W}$  cannot be taken because of manner of completion or condition of well, then  $P_{W}$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_{t}$ .