

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin-Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 7-13-61
Company Pubco Petroleum Corporation Lease _____ State _____ Well No. 29
Unit 3 Sec. 3 Twp. 29N Rge. 10W Purchaser El Paso Natural Gas
Casing 5 1/2 Wt. 16 1/2 I.D. 4.950 Set at 1531 Perf. 6308 To 6308
Tubing 2 3/8 Wt. 4.7 I.D. 1.998 Set at 5434 Perf. 6434 To 6434
Gas Pay: From 6402 To 6438 L 6375 xG 0.050 -GL 4144 Bar.Press. 12.025
Producing Thru: Casing _____ Tubing X Type Well single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer No Reservoir Temp. 178

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) _____ Type Taps _____

| No. | Flow Data | | | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|-----|----------------------------|------------------------------|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------------|
| | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h _w | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. | |
| SI | 2" | 0.750 | | | | 197 | 30 | 2013 | 30 | 3.1 |
| 1. | | | | | | 637 | | 1523 | | 1 hr |
| 2. | | | | | | 636 | | 1431 | | 2 |
| 3. | | | | | | 635 | | 1434 | | 3 |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{P_t}$ | Pressure psia | Flow Temp. Factor F _t | Gravity Factor F _g | Compress. Factor F _{pv} | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|--------------------------|--------------|------------------|--|-------------------------------------|--|--|
| 1. | 12.365 | | 216 | 0.9813 | 0.9008 | 1.025 | 6190 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas 0.650
Specific Gravity Flowing Fluid _____
P_c 2045 P_c² 4,182,025

| No. | P _w P _t (psia) | P _t ² | F _c Q | (F _c Q) ² | (F _c Q) ² (1-e ^{-s}) | P _w ² | P _c ² -P _w ² | Cal. P _w | P _w P _c |
|-----|---|-----------------------------|------------------|---------------------------------|---|-----------------------------|--|------------------------|----------------------------------|
| 1. | 1434 | | | | | 2,042,024 | 2,119,925 | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 15,313 MCFPD; n 0.75
COMPANY Pubco Petroleum Corporation
ADDRESS 100 West Clinton Astec, New Mexico
AGENT and TITLE B.H. Mayhew, Jr. District Engineer
WITNESSED Don Jamerson
COMPANY Pubco Petroleum Corporation

CAOP--6190 (4,182,025) 0.75 --6190 (1.9727) --6190 (1.00)--10,313

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 = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = 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 .