

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County Rio Arriba
Initial After Frac Annual _____ Special _____ Date of Test 8-10-60
Company Caulkins Oil Company Lease SF 079304 Well No. Sanchez #1
Unit D Sec. 24 Twp. 26N Rge. 6W Purchaser El Paso Natural Gas Company
Casing 7"OD Wt. 26# I.D. 6.276 Set at 3052 Perf. 3065 To 3110
Tubing 1 1/4" Wt. 2.4# I.D. 1.38 Set at 2963 Perf. none To _____
Gas Pay: From 3065 To 3110 L 2963 xG .688 -GL 2039 Bar.Press. _____
Producing Thru: Casing No Tubing Yes Type Well Gas - Gas Dral
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 7-21-60 Packer 7240 Reservoir Temp. _____

OBSERVED DATA

Tested Through X0000r (Choke) (X000r) 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 | | | | | | <u>640</u> | | <u>640</u> | | <u>7 day SI</u> |
| 1. | | <u>3/4"</u> | <u>118</u> | | <u>60°</u> | <u>118</u> | <u>60°</u> | <u>515</u> | | <u>3 hr. Flow</u> |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_{wpf}}$ | Pressure psia | Flow Temp. Factor F _t | Gravity Factor F _g | Compress. Factor F _{pv} | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|--------------------------|------------------|------------------|--|-------------------------------------|--|--|
| 1. | <u>14,1605</u> | | <u>130</u> | <u>1.000</u> | <u>.9338</u> | <u>1.016</u> | <u>1747</u> |
| 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 _____
Specific Gravity Flowing Fluid _____
P_c 652 P_c 425,104

| 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. | | | | | | <u>277,729</u> | <u>147,375</u> | | <u>.808</u> |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 3862 MCFPD; n (2.88)⁷⁵ 2.2107

COMPANY Caulkins Oil Company

ADDRESS P. O. Box 780, Farmington, New Mexico

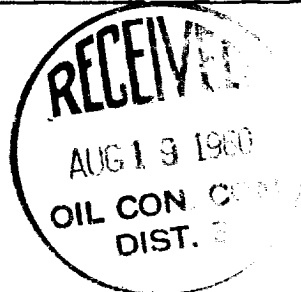
AGENT and TITLE Charles Berquist Production Foreman

WITNESSED _____

COMPANY _____

REMARKS

Orig & 2 cc: OCC
cc: EPNG - Farmington
AFH
FOG
File



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 .