

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool JAL MAT Formation YATES County LEA

Initial ☒ Annual ☐ Special ☐ Date of Test 7-13-59

Company JOSEPH I. O'NEILL, JR. Lease FEDERAL "F" Well No. 1

Unit 0 Sec. 29 Twp. 26-S Rge. 37-E Purchaser

Casing **5.5** Wt. **14** I.D. **5.012** Set at **3115** Perf. **3034** To **3044**

Tubing **2"** Wt. **4.7** I.D. **1.995** Set at **2995** Perf. **OPEN END** To

Gas Pay: From **3034** To **3044** L **3099** xG **-GL** Bar.Press. **13.2**

Producing Thru: Casing Tubing X Type Well **SINGLE BRADEN HEAD**

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 6-14-59 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Power) (Clock) (Meter) Type Taps **FLANGE**

[illegible]

METER (2000'-100") N = 4.4721

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wfp}}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.182 (4.4721)	12.6		.9715	1.000	1.000	338.4
2.	6.182 (4.4721)	13.2		.9688	1.000		353.5
3.	6.182 (4.4721)	17.4		.9671	1.000		465.2
4.	14.36 (4.4721)	9.36		.9671	1.000		581.3
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **NONE** cf/bbl.

Gravity of Liquid Hydrocarbons	NONE	deg.
--------------------------------	------	------

$$P_C = \frac{P_W \text{ MEASURED}}{(1 - e^{-S})}$$

Specific Gravity Separator Gas .600 EST

Specific Gravity Flowing Fluid

P_C 648.2 P_C 420.2

[illegible]

Absolute Potential: 2,200 MCFPD; n .966

COMPANY JOSEPH L. O'NEILL, JR.

ADDRESS 410 W. OHIO, MIDLAND, TEXAS

AGENT and TITLE Harry E. Legendre

WITNESSED JACK E. BRISCOE 0

REMARKS

THIS WELL PRODUCES CONSIDERABLE AMOUNT OF SAND ON LARGE RATES, THEREFORE, THIS WELL WAS TESTED AT ABOVE INDICATED RATES TO LIMIT IT TO AS SMALL AMOUNT AS POSSIBLE.

[illegible]

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} = Supercompressibility 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 .

