

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Ballard Formation Pictured Cliffs County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 9-22-64
Company Continental Oil Company Lease AXI Apache A Well No. 1
Unit D Sec. 15 Twp. 23N Rge. 5W Purchaser Southern Union Gas Company
Casing 5 1/2" Wt. 15.5# I.D. 4.950" Set at 6762' Perf. 2246' To 2256'
Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 2248' Perf. 2282' To 2294' GR
Gas Pay: From 2246' To 2294' L 2245' xG .670 -GL 1504 Bar.Press. 12 PSIA
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-12-64 Packer None Reservoir Temp. 83°

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Orifice) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						488		488		81 7 Days
1.	2"	7/32	448		56	448	56	450		1 Hr.
2.	2"	1/4	420		56	420	56	425		1 Hr.
3.	2"	5/16	337		57	337	57	396		1 Hr.
4.	2"	3/8	278		56	278	56	366		1 Hr.
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	1.0834		460	1.0039	.9463	1.053	499
2.	1.4030		432	1.0039	.9463	1.050	605
3.	2.1577		349	1.0029	.9463	1.038	742
4.	3.0691		290	1.0039	.9463	1.031	872
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c Pv Measured (1-e^{-s}) _____
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 500 P_c² 250

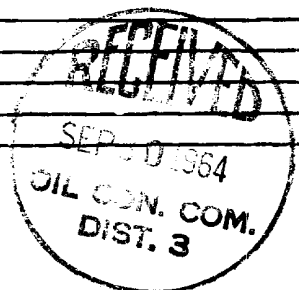
No.	P _w	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	462					213,444	36.56		92.4
2.	437					190,969	59.03		87.4
3.	408					166,464	83.54		81.6
4.	378					142,884	107.1		75.6
5.									

Absolute Potential: 1360 MCFPD; n .53

COMPANY Continental Oil Company
ADDRESS P. O. Box 3312, Durango, Colorado
AGENT and TITLE E. B. Erratt, Test Engineer
WITNESSED J. Van Matre
COMPANY Continental Oil Co.

REMARKS

NMCC(3) 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.

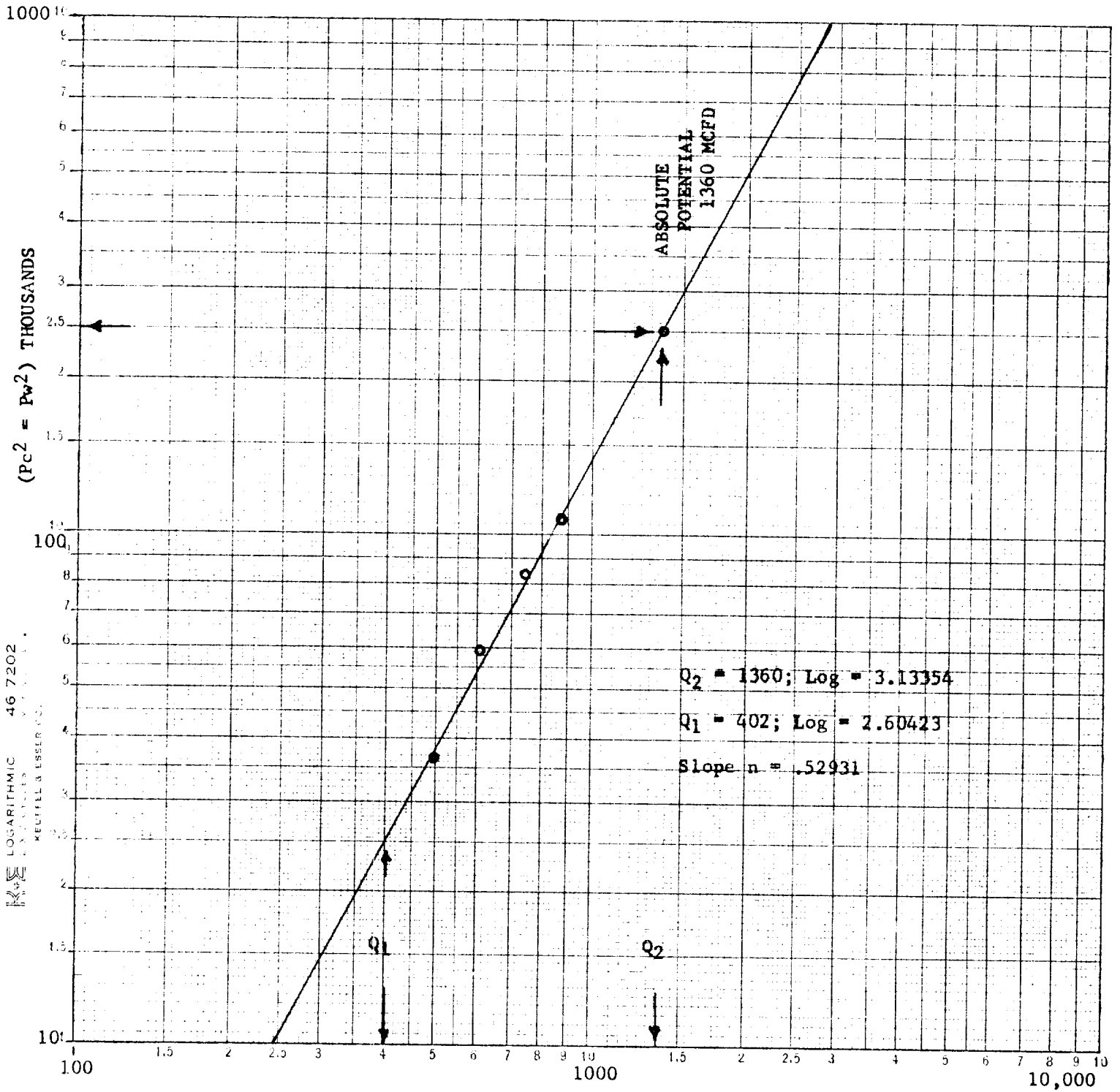
F_t = Flowing temperature correction factor.

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 .

CONTINENTAL OIL COMPANY
 AXI APACHE A-1
 SECTION 15, T23N, R5W
 RIO ARriba COUNTY, NEW MEXICO
 9-22-64



$Q = \text{MCFD @ 15.025 PSIA}$