

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special x Date of Test 1/28-2/1/58
Company SOUTHERN CALIFORNIA PETROLEUM CORPORATION Lease Woolworth Well No. 4
Unit M Sec. 8 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 5½ Wt. 14 I.D. 5.012 Set at 2906 Perf. _____ To _____
Tubing none Wt. - I.D. - Set at _____ Perf. _____ To _____
Gas Pay: From 2910 To 3085 L 2906 xG .650 -GL 1889 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: Mar. 27, 1951 Packer none Reservoir Temp. _____

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								690		72
1.	4	.750	255	1.0	91			363		24
2.	4	.750	255	2.25	85			290		24
3.	4	.750	270	4.84	111			276		24
4.										
5.	Unable to secure 4 point test on this well. Average Jalmat slope of 0.771 was drawn through highest rate of flow point.									

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.	3.435	16.37		.9715	.9608	1.021	53
2.	3.435	24.56		.9766	.9608	1.022	81
3.	3.435	37.01		.9543	.9608	1.019	118
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c neglect (1-e^{-s})

Specific Gravity Separator Gas .650
Specific Gravity Flowing Fluid _____
P_c 703.2 P_c² 494.5

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.	376.2					141.3	353.0		
2.	303.2					91.9	402.6		
3.	289.2					83.6	410.9		
4.									
5.									

Absolute Potential: 137 MCFPD; n 0.771COMPANY SOUTHERN CALIFORNIA PETROLEUM CORP.ADDRESS Box 1071, Midland, TexasAGENT and TITLE J. A. Warren Division 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 = 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 .