

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Yates County LeaInitial _____ Annual _____ Special X Date of Test June 20, 1956Company The Atlantic Refining Company Lease Coleman Well No. 1Unit C Sec. 17 Twp. 21-S Rge. 36-E Purchaser Southern Union Gas CompanyCasing 7" Wt. 24# I.D. _____ Set at 3724 Perf. 3000 To 3295Tubing 2 1/2" Wt. 6.5# I.D. 2.111 Set at 3693 Perf. _____ To _____Gas Pay: From _____ To _____ L _____ xG .658 -GL _____ Bar. Press. _____Producing Thru: Casing X Tubing _____ Type Well G. O. DualDate of Completion: _____ Packer Yes Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Proven) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	4"							1,005		72
1.	4"	1 1/2"	540	17"	66			953		24
2.	4"	1 1/2"	570	62"	65			873		24
3.	4"	2 1/2"	610	13"	65			821		24
4.	4"	2 1/2"	720	30"	72			764		24
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.	13.99	97.0	553.2	.9943	.9549	1.055	1359.3
2.	13.99	190.1	583.2	.9952	.9549	1.058	2674.0
3.	42.13	90.0	623.2	.9952	.9549	1.062	3826.7
4.	42.13	148.3	733.2	.9887	.9549	1.075	6341.7
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.865 (1-e^{-s}) 0.154Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid .658
P_c 1005 P_c^2 _____

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.	953	908.2	1.176	1.383	0.213	908.4	101.6	953.1	94.4
2.	873	762.1	2.313	5.350	0.824	762.9	247.1	873.5	86.5
3.	821	674.0	3.310	10.956	1.687	675.7	334.3	822.0	81.4
4.	764	583.7	5.485	30.085	4.633	588.3	421.7	767.0	75.9
5.									

Absolute Potential: 10,700 MCFPD; n .87COMPANY The Atlantic Refining CompanyADDRESS Box 1038 Denver City, TexasAGENT and TITLE N. A. Carr District Superintendent

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} = 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 .