

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Seven Rivers County Lea
Initial _____ Annual _____ Special x Date of Test July 23, 1956
Company Charm Oil Company Lease Gulf State Well No. 1
Unit V Sec. 1 Twp. 21S Rge. 35E Purchaser Permian Basin Pipe Line Co.
Casing 7 Wt. 20 I.D. 6.456 Set at 3929 Perf. 3483 To 3545
Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 3700 Perf. _____ To _____
Gas Pay: From 3483 To 3543 L 3483 xG .870 -GL 2334 Bar.Press. _____
Producing Thru: Casing x Tubing _____ Type Well G.O. - Dual
Single-Bradenhead-G. or G.O. Dual
Date of Completion: 9-10-54 Packer 3600 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure Gauge) (Meter)Type Taps Pipe

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								847.2		72
1.	4 x 1.25		480.6	5.2	76			233.5		24
2.	4 x 1.25		486.7	8.8	74			682.7		24
3.	4 x 1.25		486.8	14.4	79			608.6		23 3/4
4.	4 x 1.25		499.7	19.7	77			544.2		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.	10.24	50.66		0.9850	0.9463	1.045	506
2.	10.24	60.32		0.9868	0.9463	1.047	664
3.	10.24	84.55		0.9822	0.9463	1.045	844
4.	10.24	100.50		0.9840	0.9463	1.046	1002
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas .670
Specific Gravity Flowing Fluid _____
P_c _____ P_c _____

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.		557.6	0.5570	0.1274	0.0189		557.6	746.7	.87
2.		484.3	0.4694	0.2203	0.0326		484.3	695.9	.81
3.		366.6	0.5967	0.3581	0.0527		366.7	621.9	.72
4.		310.7	0.7084	0.5018	0.0743		310.8	557.5	.65
5.									

Absolute Potential: 1.557 MCFPD; n .81COMPANY Charm Oil Company
ADDRESS 302 Center Bldg., Artesia, New MexicoAGENT and TITLE Mrs. F. Allen

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 .