

NEW MEXICO OIL CONSERVATION COMMISSION

HOODS OFFICE 000 Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool WildcatFormation Morrow

1961 JUN 22 PM 1:17

County LeaInitial X

Annual

Special

Date of Test 5-31/6-2-61Company El Paso Natural Gas CompanyLease Lusk Deep UnitWell No. 26608 & 19802Unit 0 Sec. 18 Twp. 198 Rge. 328 Purchaser NoneCasing 9 5/8 Wt. 53.5 I.D. 11400Set at 13551 Perf. 12380 To 12398Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 12416 Perf. 12414.47 To 12417.97Gas Pay: From 12380 To 12398 L 12414.47 G Mix .756 GL 8069 Bar.Press. 13.2Producing Thru: Casing Tubing X Type Well Gas-Oil Dual

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

Date of Completion: 3-31-61Packer 12280Reservoir Temp. 170° F

OBSERVED DATA

Tested Through (33332211C622) (Meter)Type Taps Flange

Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prever) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI									
1.	4.000	2.750	818	3.50	78	3618			72
2.	4.000	2.750	930	12.00	70	3252			3
3.	4.000	2.750	863	25.00	72	2639			3
4.	4.000	2.750	900	28.00	75	2104			3
5.	4.000	2.000	542	32.00	70	1935			3
						3336			24

FLOW CALCULATIONS

No.	Coefficient Flg. (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.	53.05	53.94	831.2	0.9831	0.9608	1.081	2922
2.	53.05	106.39	943.2	.9905	0.9608	1.098	5897
3.	53.05	148.00	876.2	.9887	.9608	1.090	8129
4.	53.05	159.90	913.2	.9859	.9608	1.091	8766
5.	25.58	133.29	555.2	.9905	.9608	1.054	3420

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 24791 cf/bbl.Gravity of Liquid Hydrocarbons 56.0 deg.F_c 9.936 (1-e^{-S}) 0.476Specific Gravity Separator Gas .650 ESTSpecific Gravity Flowing Fluid .7547P₁ 3631.2 P₂ 13185.6

No.	P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w	P _c ² -P _w ²	Cal. P _w	P _w / P _c
1.	3265.2	10661.5	29.03	842.7	401.1	11062.3	2123.3	3326.0	0.91
2.	2652.2	7034.2	58.59	3432.8	1634.0	8688.3	4517.3	2944.2	.81
3.	2117.2	4482.5	80.77	6523.8	3105.3	7587.8	5227.8	2754.6	.76
4.	1948.2	3795.5	87.10	7586.4	3611.1	7406.6	5779.0	2721.5	.75
5.	3349.2	11217.1	33.98	1154.6	549.6	11766.9	1418.7	3430.3	.94

Absolute Potential: 31,500MCFPD; n 1.000COMPANY El Paso Natural Gas CompanyADDRESS P. O. Box 1384 - Jal, New MexicoAGENT and TITLE Rayton M. Randolph - Gas EngineerWITNESSED Dorothy G. Boaz & Jack T. LittlefieldCOMPANY El Paso Natural Gas Company

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 .