

NEW MEXICO OIL CONSERVATION COMMISSION

HOFER OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

1957 FEB 11 AM 9:57

Pool Jalmat Formation Yates - 7 Rivers County LeaInitial _____ Annual _____ Special X Date of Test 1-7-57 to 1-11-57Company El Paso Natural Gas Company Lease Shell Black Well No. 2Unit 0 Sec. 21 Twp. 24 S Rge. 37 E Purchaser El Paso Natural Gas CompanyCasing 6-5/8" Wt. 20.0# I.D. _____ Set at 3214 Perf. 2896 To 3076Tubing 2-1/2 Wt. 6.5# I.D. _____ Set at 3067 Perf. _____ To _____Gas Pay: From 2896 To 3076 L 2896 xG .650 -GL 1884 Bar.Press. 13.2Producing Thru: Casing _____ Tubing X Type Well Single

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

Date of Completion: 4-15-37 Packer None Reservoir Temp. 89°

OBSERVED DATA

Tested Through (~~Pressure~~) (~~Orifice~~) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						692				72
1.	4"	1.250	500	5.3	65	501				24
2.	4"	1.250	387	11.6	69	389				24
3.	4"	1.250	310	17.2	55	313				24
4.	4"	1.250	225	29.2	68	229				24
5.										

FLOW CALCULATIONS

No.	Coefficient (W _g) (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.	9.643	52.10		.9952	.9608	1.051	504
2.	9.643	68.00		.9915	.9608	1.038	649
3.	9.643	74.58		1.0048	.9608	1.033	717
4.	9.643	83.31		.9924	.9608	1.022	783
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

P_c 5.866 (1-e^{-s}) .122Specific Gravity Separator Gas .650

Specific Gravity Flowing Fluid _____

P_c 705.2 P_c 497.3

No.	P _t 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.	514.2	264.4	3.0	9.0	1.1	265.5	231.8	515.3	.72
2.	402.2	161.8	3.8	14.4	1.8	163.6	333.7	404.5	.56
3.	326.2	106.4	4.2	17.6	2.1	108.5	388.8	329.4	.45
4.	242.2	58.7	4.6	21.2	2.6	61.3	436.0	247.6	.33
5.									

Absolute Potential: 850 MCFPD; n .693COMPANY El Paso Natural Gas CompanyADDRESS P. O. Box 1384, Jal, New MexicoAGENT and TITLE R. T. Wright R. T. Wright - Petroleum EngineerWITNESSED Earl G. SmithCOMPANY El Paso Natural Gas Company

REMARKS

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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 .