

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinbry Gas Formation Blinbry County Lea
Initial _____ Annual _____ Special X Date of Test 10-18 to 25-63
Company Shell Oil Company Lease Turner Well No. 13
Unit N Sec. 22 Twp. 21S Rge. 37E Purchaser El Paso Natural Gas Company
Casing 5 1/2" Wt. 15.5 I.D. 4.976 Set at 6550 Perf. 5510 To 5621
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 6624 Perf. _____ To _____
Gas Pay: From 5510 To 5621 L 5510 xG Mix .692 -GL 3813 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G.O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10-3-52 Packer 6400 Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1352		72
1.	4	1.500	576	9.00	59			1088		24
2.	4	1.500	571	12.96	64			1017		24
3.	4	1.500	600	26.01	66			927		24
4.	4	1.500	565	42.90	68			806		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	72.82	589.2	1.0010	.9318	1.070	1,017
2.	13.99	87.01	584.2	.9962	.9318	1.068	1,206
3.	13.99	126.29	613.2	.9943	.9318	1.070	1,751
4.	13.99	157.50	578.2	.9924	.9318	1.066	2,171
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 1,993,000 cf/bbl.
Gravity of Liquid Hydrocarbons 74.0 deg.
F_c 1.758 (1-e^{-s}) .231

Specific Gravity Separator Gas 691
Specific Gravity Flowing Fluid 6886
P_c 1365.2 P_c² 1863.8

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.	1101.2	1212.6	1.788	3.197	.7385	1213.3	650.5	1101.5	80.7
2.	1030.2	1061.3	2.130	4.494	1.038	1062.3	801.5	1030.7	75.5
3.	940.2	884.0	3.078	9.474	2.188	886.2	977.6	941.4	68.9
4.	819.2	671.1	3.817	14.569	3.365	674.5	1189.3	821.3	60.1
5.									

Absolute Potential: 3,400 MCFPD; n 1.000COMPANY Shell Oil CompanyADDRESS P. O. Box 1858, Roswell, New MexicoAGENT and TITLE A. L. Ellerd - Gas TesterWITNESSED L. D. SouthernCOMPANY El Paso Natural Gas Company

REMARKS

Slope greater than 1.000, a slope of 1.000 drawn through highest rate of flow.

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 .

NOV 20 10 32 AM '63
HOBBBS OFFICE O.C.C.

GAS WELL BACK PRESSURE CURVE

County LEA Field BLINEBRY GAS
 Operator SHELL OIL COMPANY
 Lease TURNER Well No. 13
 Volume 3,400 MCF/24 hr.
 Date OCTOBER 25, 1963

