

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

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Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 FEB 11 AM 9:48

Pool Blinberry Formation 25 Blinberry County LeaInitial X Annual _____ Special _____ Date of Test 12-20-56Company Sinclair Oil & Gas Company Lease J.R. Cone "A" Well No. 2Unit L Sec. 26 Twp. 21S Rge. 37E Purchaser None 5560-5572Casing 7" Wt. 23# I.D. 6.366 Set at 6553 Perf. 5592-5596 To 5576-5588Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6275 Perf. Packer To _____Gas Pay: From 5492 To 5630 L 5492 xG .000 -GL 4394 Bar.Press. 13.3Producing Thru: Casing X Tubing _____ Type Well Dual G.O.Date of Completion: 12-16-56 Packer 6275 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 122

OBSERVED DATA

Tested Through (Prover) (~~Choke~~) (~~Meter~~) Type Taps 2" C.F.P.

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	2"	3/16	740		18			1834	60	72
2.		5/16	721		26			1702	60	3
3.		3/8	726		13			1612	60	3
4.		7/16	750		36			1490	60	3
5.		1/2	767		34			1343	60	3
								2131	60	24

FLOW CALCULATIONS

No.	Coefficient (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.	.7851		753.2	1.0430	.9325	1.135	653
2.	2.1377		734.2	1.0344	.9325	1.130	1727
3.	3.0691		739.2	1.0463	.9325	1.135	2511
4.	4.3997		763.2	1.0239	.9325	1.110	3559
5.	5.5233		760.2	1.0260	.9325	1.117	4487

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 21,995 cf/bbl.
Gravity of Liquid Hydrocarbons 67 deg.
F_c .740 (1-e^{-s}) .261Specific Gravity Separator Gas .692
Specific Gravity Flowing Fluid .7126
P_c 1847.2 P_c 3412.1

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.	1715.2	2942	.483	.233	.061	2942	470.1	1715.2	92.9
2.	1625.2	2641	1.278	1.633	.426	2641.4	770.7	1625.2	87.9
3.	1509.2	2260	1.898	3.452	.900	2260.9	1151.2	1497.6	81.4
4.	1346.2	1809	2.824	6.928	1.811	1809.8	1571.3	1346.8	73.5
5.	1144.2	1309	3.320	11.022	2.877	1311.9	2100.2	1145.4	620

Absolute Potential: 7.045 MCFPD; n .95COMPANY Sinclair Oil & Gas CompanyADDRESS 520 East Broadway, Hobbs, New MexicoAGENT and TITLE R. L. Harned

WITNESSED _____

COMPANY _____

Orig. & 2cc:OCC

REMARKS

cc:FCR, WJR, CCS, PTD, EPN, PBPL, P110(3)

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.

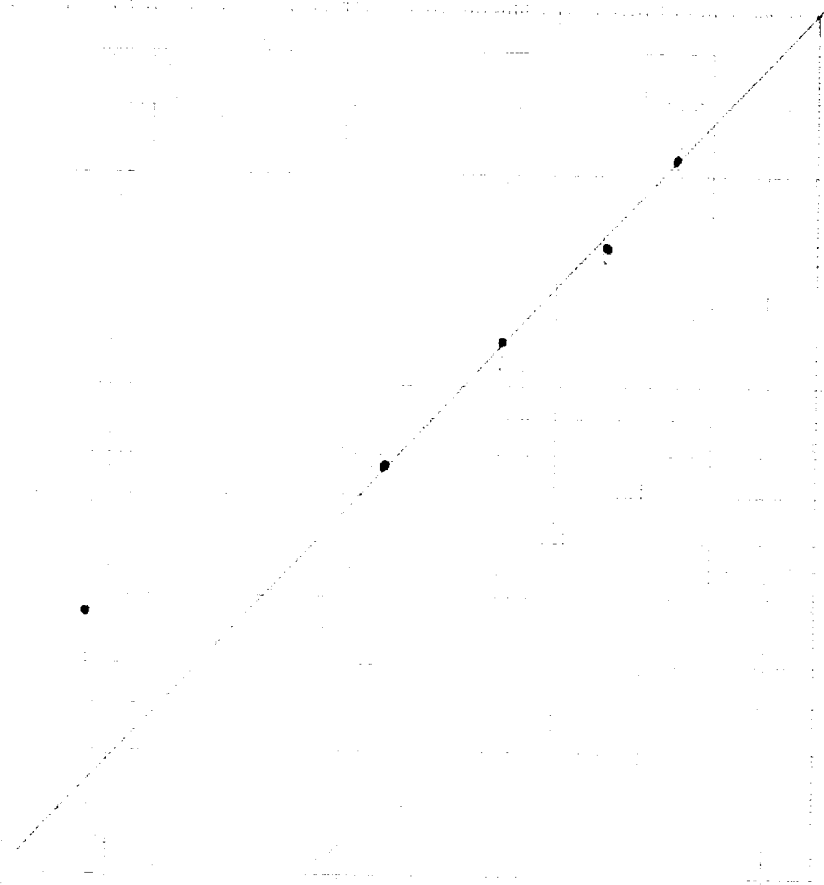
F_t = Flowing temperature correction factor.

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 .

$P_c^2 - P_a^2$



HPOF-7,045 MCFPD

$Q \text{ IN MCF}$

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