

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS

Revised 12-1-55

1957 FEB 13 AM 8:04

Pool Jalnet Formation Igton County Lee
Initial _____ Annual _____ Special X Date of Test 1-11-57
Company Sinclair Oil & Gas Company Lease State 157 "C" Well No. 2
Unit # I Sec. 32 Twp. 24S Rge. 37E Purchaser El Paso Natural Gas Company
Casing 7 Wt. 24 I.D. 6.336 Set at 3428 Perf. 3025 To 3092
Tubing 2 Wt. 4.74 I.D. 1.995 Set at 3100 Perf. _____ To _____
Gas Pay: From 3025 To 3092 L 3100 xG .645 -GL 1999 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 10-9-49 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 118°

OBSERVED DATA

Tested Through <u>(DODGE)</u> <u>(DODGE)</u> (Meter)						Type Taps <u>FLANGE</u>				
No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	<u>(DODGE)</u> (Line) Size	<u>(DODGE)</u> (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4"	1.500	732	6.76	121	797	70			72
2.	4"	1.500	684	16.09	98	732	70			24
3.	4"	1.500	662	19.36	103	685	70			24
4.	4"	1.500	662	19.36	103	666	70			24
5.	4"	1.500	650	22.09	109	660*	70			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.	13.99	70.97	745.2	.9460	.9645	1.049	950
2.	13.99	106.40	698.2	.9651	.9645	1.053	1499
3.	13.99	114.32	679.2	.9610	.9645	1.050	1556
4.	13.99	121.02	673.2	.9599	.9645	1.050	1639
5.							

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio 0 cf/bbl.
Gravity of Liquid Hydrocarbons 0 deg.
9.936 (1-e^{-s}) .129
Specific Gravity Separator Gas .645
Specific Gravity Flowing Fluid _____
P_c 810.2 P_c² 656.4

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.	745.2	555.3	9.44	89.11	11.5	566.8	89.6	742.8	92.9
2.	698.2	487.2	14.50	210.25	27.1	514.3	142.1	717.2	88.5
3.	679.2	461.3	15.46	239.01	30.8	492.1	164.3	701.5	86.6
4.	673.2	453.2	16.29	265.36	34.2	487.4	169.0	698.2	86.2
5.									

Absolute Potential: 5,700 MCFPD; n .905
COMPANY Sinclair Oil & Gas Company
ADDRESS 520 East Broadway, Hobbs, New Mexico
AGENT and TITLE R. L. Harrod Gas Analyst
WITNESSED Edward Nabe
COMPANY El Paso Natural Gas Company

REMARKS

* Not Enough Draw Down Due to Choke Restriction In Well

A. 112
1-11-57

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 .