

NEW MEXICO OIL CONSERVATION COMMISSION

WIS A. UTZ
GAS ENGINEER

Form C-122

Revised 12-1-55

MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

Pool Summit Formation Queen County Lea
Initial _____ Annual _____ Special X Date of Test 7-27-56
Company Sinclair Oil & Gas Company Lease Salby Marvady Well No. 2
Unit K Sec. 35 Twp. 19S Rge. 34E Purchaser El Paso Natural Gas Co.
Casing 5 Wt. 15.04 I.D. 4.976 Set at 3992 Perf. 3426 To 3984
Tubing 20 Wt. 4.74 I.D. 1.995 Set at 3400 Perf. Open To _____
Gas Pay: From 3426 To 3984 L 3400 xG .680 -GL 2448 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 7-16-56 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 162

OBSERVED DATA

Tested Through (Pressure) (Current) (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	-	-	-	-	-	852	80	-	-	72
1.	4	1.900	593	9.0	62	832	80	-	-	24
2.	4	1.900	589	14.8	61	817	80	-	-	24
3.	4	1.900	600	24.5	63	809	80	-	-	24
4.	4	1.900	651	44.8	65	756	80	-	-	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	73.86	606.2	.9981	.9393	1.072	1080
2.	13.99	100.59	608.2	.9980	.9393	1.072	1415
3.	13.99	122.56	613.2	.9971	.9393	1.072	1722
4.	13.99	175.22	664.2	.9952	.9393	1.072	2470
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.
Gravity of Liquid Hydrocarbons - deg.
F_c 9.936 (1-e^{-s}) .155
Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid -
P_c 865.2 P_c² 748.6

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.	845.2	714.4	10.314	106.38	16.44	730.9	17.7	845.9	98.8
2.	830.2	689.2	14.859	197.84	30.64	719.2	20.8	845.4	98.1
3.	816.2	666.2	17.110	292.75	45.30	711.6	37.0	843.6	97.5
4.	769.2	591.7	24.500	600.30	91.05	684.7	63.9	827.5	95.6
5.									

Absolute Potential: 13.025 MCFPD; n .60

COMPANY SINCLAIR OIL & GAS COMPANY
ADDRESS 520 East Broadway, Hobbs, New Mexico
AGENT and TITLE R. L. Harned Gas Analyst
WITNESSED RM Hobe
COMPANY El Paso Natural Gas Company

REMARKS

WELL COULD NOT BE PULLED DOWN BELOW 89% OF SHUT IN DUE TO CHOKE SIZE IN WELL.

Orig. & 2cc:OCC
cc:STF,FCR,WJR,CCS,File

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 .