

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool JALMAT Formation YATES County IEA

Initial _____ Annual _____ Special X Date of Test 10-15-56 to 10-19-56

Company SCHERMERHORN OIL CORP. Lease AMERADA-STATE Well No. 1

Unit I Sec. 24 Twp. 22 Rge. 35 Purchaser EPNG

Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3594 Perf. OH To _____

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3680 Perf. _____ To _____

Gas Pay: From 3594 To 3710 L 3680 xG .670 -GL _____ Bar.Press. 13.2

Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 4-14-55 Packer None Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(PSIA) (Line) Size	(ORIFICE) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						852		864		72
1.	4	1.250	592	1.00	66	767		847		24
2.	4	1.250	628	6.25	66	742		882		24
3.	4	1.250	680	14.44	62	725		810		24
4.	4	1.250	685	19.36	64	709*		799		24
5.										

FLOW CALCULATIONS

No.	Coefficient (PSIA) (Fig.)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.648	24.60		.9949	.9468	1.066	298
2.	9.648	63.05		.9949	.9468	1.069	618
3.	9.648	96.86		.9981	.9468	1.072	940
4.	9.648	112.01		.9962	.9468	1.072	1091
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 877.2 P_c 769.5

*Not enough draw down but good spread of points.

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.	860.2	608.7				739.9	29.6		
2.	845.2	570.3				714.4	55.1		
3.	828.2	544.9				677.7	91.8		
4.	812.2	521.6				659.7	109.8		
5.									

Absolute Potential: 5,900 MCFPD; n .860COMPANY Schermernhorn Oil CorporationADDRESS P. O. Box 1537, Hobbs, New MexicoAGENT and TITLE J. H. Moore, GeologistWITNESSED Edward MabeCOMPANY El Paso Natural Gas Company

REMARKS

ELVIS A. H. 7
GAS ENGINEER

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 .