NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Formation Dakota County San Juan

Initial XX Annual ____ Special ____ Date of Test 1-28-62

Company Adobe Oil Co. Lease Hall Well No. 1

Unit N Sec. 20 Twp. 31N Rge. 13W Purchaser ____

Casing 4 1/2 Wt. 10.5 I.D. ____ Set at 6518 Perf. 6304 To 6410

Tubing 2 3/4 Wt. 4.7 I.D. ____ Set at 6395 Perf. Open ended To ____

Gas Pay: From 6304 To 6410 L ____ xG 0.680 -GL ____ Bar.Press. ____

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

Date of Completion: 1-15-62 Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ Type Taps ____

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1930		1936		
1.										
2.										
3.	2"	3/4"	173		61			654		3 hours
4.										
5.										

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.							
2.							
3.	12.3650		185	0.9990	0.9393	1.021	2192
4.							
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 1948 P_c^2 3795

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.									
3.	666					444	3351		1.1325
4.									
5.									

Absolute Potential: 2406 MCFPD; n 0.75 1.0978
COMPANY Adobe Oil Co.
ADDRESS 1223 Petroleum Life Bldg., Midland, Texas
AGENT and TITLE T. A. Dugan, Engineer
WITNESSED ____
COMPANY ____

REMARKS

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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.