NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated * Formation Blinebry County Lea

Initial X Annual ____ Special ____ Date of Test 6/16/56

Company The Ohio Oil Company Lease Wm. Turner Well No. 3

Unit I Sec. 29 Twp. 21-S Rge. 37-E Purchaser No Pipeline Connection

Casing 5.5 Wt. 17 I.D. 4.892 Set at 7911 Perf. 5570 To 5620

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 5621.72 Perf. 5620 To 5621

Gas Pay: From 5570 To 5620 L 5620 xG 0.695 -GL 3906 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Re-completion: Single-Bradenhead-G. G. or G.O. Dual

Date of ~~Completion~~: 6/7/56 Packer None Reservoir Temp. —

NOTE: Well S.I. @ 3:30 p.m. 6/14/56
Well opened @ 8: a.m. 6/16/56

OBSERVED DATA

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

No.	Flow Data (~~Prover~~) (Line) Size	(Choke) (~~Orifice~~) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	2 in.	—	—	—	—	1648	90	1740	90	40½ hrs. S.I.
1.	"	1/8	1501	—	—	1501	89	1731	90	3 hrs.
2.	"	1/2	1360	—	—	1360	83	1631	90	3 hrs.
3.	"	5/8	1006	—	—	1006	74	1567	90	3 hrs.
4.	"	3/4	740	—	—	740	61	1556	90	3 hrs.
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.	0.3261	—	1514.2	0.9732	0.9292	1.154	515.3
2.	5.4315	—	1373.2	0.9786	0.9292	1.147	7,779.1
3.	8.5417	—	1019.2	0.9868	0.9292	1.118	8,924.5
4.	12.3650	—	753.2	0.9990	0.9292	1.090	9,423.4
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry (flared) cf/bbl.

Gravity of Liquid Hydrocarbons -- deg.

F_c Pw Measured $(1-e^{-s})$ --

Specific Gravity Separator Gas —

Specific Gravity Flowing Fluid —

P_c 1753.2 P_c^2 3073.7

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.	~~1744.2~~					3042.2	31.5		99.5
2.	~~1644.2~~					2703.4	370.3		93.8
3.	~~1580.2~~					2497.0	576.7		90.1
4.	~~1567.2~~					2462.4	611.3		89.5
5.									

Absolute Potential: 46,278 MCFPD; n 0.985367

COMPANY The Ohio Oil Company

ADDRESS P. O. Box 2107, Hobbs, New Mexico

AGENT and TITLE - T. C. Webb - Petroleum Engineer

WITNESSED ~~Mr. C. M. Rieder~~

COMPANY New Mexico Oil Conservation Commission

REMARKS

* Request for Blinebry Pool extension submitted.

NOTE: Above test conducted thru standard six inch Thornhill-Craver positive flow-beans.

Gas produced on above test vented to atmosphere and flared.

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.