

NEW MEXICO OIL CONSERVATION COMMISSION

NOV 5 1959

Form C-122

HOBBS OFFICE OCC

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated WC Formation Band 1959 OCT 29 PM 1:51 County Edgar

Initial X Annual _____ Special _____ Date of Test 10-17, 18-59

Company The Ohio Oil Company Lease Ralph Nix Well No. 1

Unit J Sec. 29 Twp. 18S Rge. 26E Purchaser -

Casing 7" Wt. 29# I.D. 6.184 Set at 9219' Perf. 9070 To 9115

Tubing 2 3/8" Wt. 4.7# I.D. 1.995 Set at 9087 Perf. 9052 To 9094

Gas Pay: From 9070 To 9115 L 9052 xG .619 -GL See Below Bar.Press. 13.2

Producing Thru: Casing _____ Tubing X Type Well Single

Date of Completion: 10-13-59 Packer 9040 Single-Bradenhead-G. G. or G. O. Dual Reservoir Temp. 156°

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2866	-	Pkr.	-	13 3/4 Hr. SI
1.	4"	1.75"	600	10.0	72	2774	-	"	-	2 Hrs.
2.	4"	1.75"	600	24.0	66	2668	-	"	-	2 "
3.	4"	1.75"	600	44.2	62	2520	-	"	-	4 "
4.	4"	1.75"	600	87.0	71	2329	-	"	-	2 "
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	19.27	81.38	613.2	0.9887	0.9845	1.053	1607
2.	19.27	121.3	613.2	0.9943	0.9845	1.054	2412
3.	19.27	164.6	613.2	0.9981	0.9845	1.056	3291
4.	19.27	231.0	613.2	0.9996	0.9845	1.053	4567
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio See Below cf/bbl.

Gravity of Liquid Hydrocarbons 56.2 deg.

P_c 9.936 (1-e^{-s}) See Below

Specific Gravity Separator Gas 0.619

Specific Gravity Flowing Fluid See Below

P_c 2679.2 P_c^2 8290

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.	2787.2	7768	15.97	255.0	86.96	7855	435	2802.7	0.97
2.	2681.2	7189	23.97	574.6	191.9	7381	909	2716.8	0.94
3.	2533.2	6417	32.70	1069	358.1	6775	1515	2602.8	0.90
4.	2342.2	5486	45.38	2059	681.5	6167	2123	2483.3	0.86
5.									

Absolute Potential: 11,104 MCFPD; n 0.652124

COMPANY The Ohio Oil Company

ADDRESS Box 2107, Hobbs, New Mexico

AGENT and TITLE John R. Barber, Petroleum Engineer

WITNESSED _____

COMPANY _____

Rate	Fluid	GLR	GL	REMARKS
1	29.16	55,110	.669	6056 .341
2	29.16	82,216	.652	5992 .334
3	45.94	72,266	.656	5938 .335
4	43.92	103,985	.645	5839 .331

Improper point alignment obtained on this test. This is an average slope of the four data points. Next will be retested.

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 .