NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE O. C. C.

JUN 2 8 30 AM '64

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Wildcat** Formation **Morrow Sand** County **Lea**

Initial **Re-test** Annual _____ Special _____ Date of Test **5-9-64**

Company **Midwest Oil Corp.** Lease **Custer Mountain Unit** Well No. **1**

Unit _____ Sec. **9** Twp. **24-S** Rge. **35-E** Purchaser **None**

Casing **7" Liner** Wt. **29** I.D. **6.184** Set at **12,118 - 15,360** Perf. ***See below** To ***See Below**

Tubing **2 3/8** Wt. **5.30** I.D. **1.947** Set at **14,020** Perf. **Open End** To _____

Gas Pay: From **14,036** To **14,288** L **14126** xG _____ =GL _____ Bar.Press. **13.2**

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

Date of Completion: **5-17-64** Packer **14020** Reservoir Temp. **168°**

OBSERVED DATA

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

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						6990	70			72
1.	3"	2"	370	23	66	5810	75	Packer		5
2.	3"	2"	370	34	60	5400	82			4
3.	3"	2"	370	58	60	4610	88			3
4.	3"	2"	595	56	50	3065	86			6
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.	27.52	95.44	383.2	.9943	.9862	1.033	2660
2.	27.52	116.0	382.2	1.000	.9862	1.034	3255
3.	27.52	151.5	382.2	1.000	.9862	1.034	4255
4.	27.52	186.77	608.2	1.0098	.9862	1.090	5578
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **139,450** cf/bbl. Specific Gravity Separator Gas **.618**

Gravity of Liquid Hydrocarbons **47.6** deg. Specific Gravity Flowing Fluid _____

F_c **BHP Instrument** $(1-e^{-s})$ _____ P_c **8913.2** P_c^2 **79,455**

No.	P_w / Pt (psia) BHP	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	7264.2					52.766	26679		
2.	6840.2					46.786	32659		
3.	6039.2	Used Subsurface Pressure Guage				37.687	42758		
4.	4728.2					22.356	57089		
5.									

Absolute Potential: **8000** MCFPD; n **1.000**

COMPANY **Midwest Oil Corp.**

ADDRESS **Wilco Bldg., Midland, Texas**

AGENT and TITLE **C. Allen Dorsey, Engineer**

WITNESSED _____

COMPANY _____

REMARKS

***Perfd: 14036-46; 14074-84; 14254-14288**

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.