NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

NMOCC DEC 9 AM 10 30

Pool Jalmat Formation Yates County Lea

Initial X Annual Special Date of Test 2-27-57

Company Cities Service Oil Company Lease Closson B Well No. 11

Unit A H Sec. 30 Twp. 22 Rge. 36 Purchaser El Paso Natural Gas

Casing 5½ Wt. 14 I.D. Set at 3386 Perf. To

Tubing 2 Wt. 4.7 I.D. Set at 3340 Perf. To

Gas Pay: From 3386 To 3486 L xG .655 -GL Bar.Press. 13.2

Producing Thru: Casing Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 2-14-57 Packer None Reservoir Temp.

TD 3486

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						1100		1102		72
1.	2"	1.250	26		33	911		945		3
2.	2"	1.250	48		43	672		752		3
3.	2"	1.250	54		44	564		675		3
4.	2"	1.250	61		42	444		598		3
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.	35.6738		39.2	1.0270	.9571		1374
2.	35.6738		61.2	1.0168	.9571		2125
3.	35.6738		67.2	1.0157	.9571		2332
4.	35.6738		74.2	1.0178	.957		2578
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 1115.2 P_c^2 1243.7

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.	958.2	854.1				918.1	325.6		
2.	765.2	469.5				585.5	658.2		
3.	688.2	333.2				473.6	770.1		
4.	611.2	209.0				373.6	870.1		
5.									

Absolute Potential: 3,150 MCFPD; n .661

COMPANY Cities Service Oil Co.

ADDRESS Box 97, Hobbs, New Mexico

AGENT and TITLE E. H. Furrey, Jr. Petroleum Engineer

WITNESSED Mabe

COMPANY El Paso Natural Gas Co.

REMARKS

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.