NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea

Initial x Annual Special Date of Test 6-11 to 6-15-56

Company L. E. Elliott Lease Federal Elliott Well No. 2

Unit J Sec. 26 Twp. 20S Rge. 36E Purchaser El Paso Natural Gas Co.

Casing 7 Wt. I.D. Set at 3720 Perf. To

Tubing 2 Wt. I.D. Set at 3775 Perf. To

Gas Pay: From 3720 To 3780 L 3775 xG .675 -GL 2548 Bar.Press. 13.2

Producing Thru: Casing Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 6-26-54 Packer Reservoir Temp.

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						840		841		72
1.	4	1.250	568	3.6	12.96	780		789		24
2.	"	4	566	5.45	29.70	681		730		24
3.	"	"	565	5.7	32.49	649		704		24
4.	"	"	598	5.7	32.49	629		688		24
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.	9.643	86.77	581.2	.9943	.9427	1.062	833
2.	"	131.14	579.2	.9924	.9427	1.062	1.256
3.	"	131.34	579.2	.9876	.9427	1.060	1.253
4.	"	140.90	577.2	.9868	.9427	1.075	1.359
5.							

PRESSURE CALCULATIONS 9.0905

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 841. 854.2 P_c^2 707.3 729.7

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.	792.2				627.58	629.6	77.7	102.1	94.1
2.						552.3	155.0	177.4	88.3
3.	743.2					514.4	192.9	215.3	85.2
4.	717.2					491.7	215.6	238.0	83.3
5.	701.2								

Absolute Potential: 2077 2720 MCFPD; n .587

COMPANY Elliott, Inc.
ADDRESS Box 703, Roswell, New Mexico
AGENT and TITLE
WITNESSED
COMPANY

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.