NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial X Annual Special Date of Test 4-6/4-10/1959

Company El Paso Natural Gas Company Lease Wells Well No. 11

Unit N Sec. 4 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 5 1/2 Wt. 15.5 I.D. Set at 3334 Perf. 3030 To 3140

Tubing 2 Wt. 4.7 I.D. Set at 3000 Perf. To

Gas Pay: From 3030 To 3140 L 3000 xG .660 (Assumed) -GL Bar.Press. 13.2

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

Date of Completion: 11-15-57 Packer None Reservoir Temp.

OBSERVED DATA

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

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						552		552		72
1.	4	1.250	203	22.09	53	531		537		24
2.	4	1.250	212	31.36	45	513		530		24
3.	4	1.250	210	73.10	49	494		521		24
4.	4	1.250	222	92.16	50	480		517		24
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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	69.11		1.0068	.9535	1.023	654.5
2.	9.643	84.04		1.0147	.9535	1.026	804.4
3.	9.643	127.7		1.0107	.9535	1.026	1217
4.	9.643	147.2		1.0098	.9535	1.026	1402
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c Measured $(1-e^{-s})$

Specific Gravity Separator Gas .660 (Assumed)
Specific Gravity Flowing Fluid
P_c 565.2 P_c^2 319.4

No.	P_w / P_t (psia)	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.	544.2	269.1				302.7	16.7	550.2	.97
2.	531.2	282.2				295.1	24.3	543.2	.96
3.	507.2	257.2	- - -	Measured	- - -	285.4	34.0	534.2	.95
4.	493.2	243.2				281.1	38.3	530.2	.94
5.									

Absolute Potential: 11,750 MCFPD; n 1.000

COMPANY El Paso Natural Gas Company
ADDRESS P.O. Box 1364; Jal, New Mexico
AGENT and TITLE R.L. Wright, R.L. Wright - Petroleum Engineer
WITNESSED Herbert H. Kerby
COMPANY El Paso Natural Gas Company

REMARKS

Good point alignment thru 3 points, but slope greater than 1.000. Slope of 1.000 drawn thru point corresponding with Highest rate of flow.

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.