

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Justis Formation Glorietta County Lea
Initial _____ Annual _____ Special X Date of Test 6-24/6-28-57
Company El Paso Natural Gas Co. Lease Justis Well No. 1
Unit P Sec. 11 Twp. 25 Rge. 37 Purchaser EPNG
Casing 5 1/2" Wt. _____ I.D. _____ Set at 9590 Perf. _____ To _____
Tubing 2" Wt. 4.7 # I.D. _____ Set at 4347 Perf. _____ To _____
Gas Pay: From 4700 To 4885 L 4347 xG 0.675 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion See 10-20-43 Packer None Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	<u>(Pressure)</u> (Line) Size	<u>(Choke)</u> (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						997		997		72
1.	4	1.250	238	19.36	50	810		835		24
2.	4	1.250	235	27.56	54	701		713		24
3.	4	1.250	251	30.25	56	593		609		24
4.	4	1.250	250	34.81	61	502		524		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	69.71		1.0098	.9427	1.028	658
2.	9.643	82.68		1.0058	.9427	1.028	777
3.	9.643	89.36		1.0039	.9427	1.029	839
4.	9.643	95.68		.9990	.9427	1.028	893
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c Measured (1-e^{-S}) Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1010.2 P_c² 1020.5

No.	P _w 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.	848.2					719.4	301.1		.81
2.	726.2					527.4	493.1		.70
3.	622.2					387.1	633.4		.59
4.	537.2					288.6	731.9		.50
5.									

Absolute Potential: 1,200 MCFPD; n 0.500

COMPANY EL PASO NATURAL GAS COMPANY

ADDRESS _____

AGENT and TITLE R. T. Wright

WITNESSED Earl G. Smith

COMPANY EL PASO NATURAL GAS COMPANY

REMARKS

2nd Test on this well. Both tests had slope less than 0.5 Slope of 0.500
was drawn through flow point representing lowest 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 .

EL PASO NATL. GAS CO.

USTIS N° 1

P-11-25-37 - LEA CO. N.M.

6-28-1957

$P_1 = 2525$; $\log 3.402261$
 $Q_1 = 800$; $\log 2.903090$
SLOPE $n = 0.499171$

