

NEW MEXICO OIL CONSERVATION COMMISSION

CORRECTED REPORT

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Queen County Lea

Initial _____ Annual X Special _____ Date of Test 11-30-66

Company John M. Kelly Lease Continental State F Well No. 1

Unit D Sec. 1 Twp. 21 Rge. 36 Purchaser KPNG

Casing 5 1/2 Wt. 15 1/2 I.D. 4.950 Set at 3504 Perf. _____ To _____

Tubing 8 Wt. 4.75 I.D. 1.995 Set at 3695 Perf. _____ To _____

Gas Pay: From 3500 To 3700 L 3695 xG .657 -GL 2436 Bar.Press. 13.8

Producing Thru: Casing _____ Tubing X Type Well Single

Single-Br lenhead-G. G. or G.O. Dual

Date of Completion: 11-153 Packer 3475 Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~Pressure~~ ~~Orifice~~ (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						621/561				24/48
1.	4	2.00	253	36.6	62	280				24
2.	4	2.00	240	30.8	59	320				24
3.	4	2.00	232	27.04	63	348				24
4.	4	2.00	215	16.81	55	448				24

5. This well would not produce into KPNG high pressure system. Test separator was installed and gas vented through meter run.

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.	25.58	98.68	265.2	.9981	.9427	1.028	2442
2.	25.58	88.28	253.2	1.0010	.9427	1.028	2191
3.	25.58	81.39	245.2	.9971	.9427	1.026	2008
4.	25.58	61.91	228.2	1.0048	.9427	1.024	1537

5. slope greater than 1.000 - average slope of 1.000 drawn through highest rate of flow.

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 9.936 (1-e^{-s}) .154
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 634.2 P_c² 402.2

No.	$\frac{P_w}{P_t}$	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.	293.2	85.9	24.3	590.49	90.9	176.8	225.4	120.5	.66
2.	333.2	111.0	21.8	475.24	73.1	184.1	218.1	120.1	.68
3.	361.2	130.5	19.9	396.01	61.0	191.5	210.7	137.8	.69
4.	461.2	212.7	15.3	234.09	36.1	248.8	153.4	198.8	.79

Absolute Potential: 4325 MCFPD; n 1.000

COMPANY John M. Kelly
 ADDRESS Box 5671, Roswell, New Mexico
 AGENT and TITLE Leunette W. M. Kelly Production Superintendent
 WITNESSED Edward Mabe
 COMPANY El Paso Natural Gas

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} = Supercompressibility 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 .