

NEW MEXICO OIL CONSERVATION COMMISSION
MAIN OFFICE OCC

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS
1958 AUG 20 AM 8:44

Pool Langlie-Mattix Formation Queens County Lea
Initial X Annual _____ Special _____ Date of Test July 32, 1958
Company Johnson & French Lease Federal "B" Well No. 1
Unit G Sec. 14 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 5 1/2 Wt. 15.5 I.D. _____ Set at 3270 Perf. O. H. To _____
Tubing 2" Wt. 4.7 I.D. _____ Set at 3285 Perf. _____ To _____
Gas Pay: From 3280 To 3298 L 3285 xG 0.675 -GL 2217 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 7-12-58 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) _____ Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Meter) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						229		389		72
1.	2 x .250		303.5		95	305		376		3
2.	2x .375		286.0		91	293		360		3
3.	2x .500		224.7		86	242		344		3
4.	2x .625		164.2		80	195		332		3
5.	2x .625		157		84	184		305		24

FLOW CALCULATIONS

No.	Coefficient Prover (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.	1.4030		316.7	.9680	.9427	1.027	416
2.	3.0691		299.2	.9715	.9427	1.025	862
3.	5.5233		237.9	.9759	.9427	1.020	1,233
4.	8.3555		177.4	.9813	.9427	1.016	1,393
5.	8.3555		170.2	.9777	.9427	1.014	1,329

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons 36.1 deg. APL 60-F
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 402.2 P_c 161.8

No.	P _w P _t (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.	318.2	101.3				151.5	10.3		
2.	306.2	93.8				139.3	22.5		
3.	255.2	65.1				127.6	34.2		
4.	208.2	43.3				119.2	42.6		
5.	197.2	38.9				101.3	60.5		

Absolute Potential: 3,150 MCFPD; n .877

COMPANY Johnson & French Oil Co.

ADDRESS Box 1248 Jal, New Mexico

AGENT and TITLE Partner

WITNESSED J. O. Whitting

COMPANY El Paso Natural Gas Company

REMARKS

See Log attached

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 .