

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool So. Blanco P.C. Formation Pictured Cliffs County San Juan, N.M.
Initial X Annual _____ Special _____ Date of Test 10-13-58
Company Western Natural Gas Company Lease Marron Well No. 3
Unit p Sec. 22 Twp. 27-N Rge. 8-W Purchaser EPNG Co.
Casing 5 1/2 Wt. 15.50 I.D. 4.950 Set at 2226.45 Perf. 2113-19, 2126 To 46, 2152-721
Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 2146' Perf. _____ To _____
Gas Pay: From 2106 To 2174 L 2146 xG Est. .655 GL 11405.6 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-27-58 Packer None Reservoir Temp. 97°F

OBSERVED DATA

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

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										
1.		<u>0.750</u>	<u>414</u>		<u>62</u>	<u>756</u>		<u>756</u>		<u>15 days</u>
2.						<u>414</u>		<u>641</u>		<u>3 hours</u>
3.										
4.										
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.	<u>14.1605</u>		<u>426</u>	<u>.9981</u>	<u>.9571</u>	<u>1.043</u>	<u>6,010</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

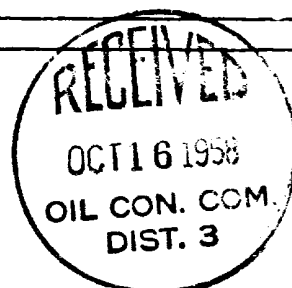
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 768 P_c 589,824

No.	$\frac{P_w}{P_t}$ (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	$\frac{P_w}{P_c}$
1.						<u>426,409</u>	<u>163,415</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 17,910 MCFPD; n 0.85

COMPANY Western Natural Gas
ADDRESS 2112 W. Main, Farmington, New Mexico
AGENT and TITLE C. M. Rayne Petroleum Engineer
WITNESSED Oliver Towell
COMPANY Benson, Martin & Greer Drilling Corp

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 .

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