

3 - N.M.O.C.C.
1 - E.P.N.G.-Farm, NEW MEXICO OIL CONSERVATION COMMISSION
1 - E.P.N.G. - E.P.
1 - W. G. Cutler
1 - File

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Pictured Cliffs County Rio Arriba
Initial XXX Annual _____ Special _____ Date of Test 8-19-59
Company ~~Pacific Northwest Pipeline~~ E.P.N.C. Lease San Juan 27-5 Well No. 15-16
Unit M Sec. 16 Twp. 27N Rge. 5W Purchaser Not Connected
Casing 7 5/8 Wt. 24# I.D. 6.8 Set at 3305 Perf. 3282 To 3302
Tubing 1 1/2 Wt. 2.4 I.D. 1.38 Set at 3180 Perf. 3177 To 3180
Gas Pay: From 3282 To 3302 L _____ xG .650 -GL _____ Bar.Press. 12
Producing Thru: Casing _____ Tubing 1" XXX Type Well Dual-G.G.
Date of Completion: 8-6-59 Packer 4812 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

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>3/4</u>	<u>142</u>		<u>480</u>	<u>1053</u>	<u>142</u>	<u>1053</u>	<u>946</u>	<u>3 Hours</u>
2.										
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>12.3650</u>		<u>154</u>	<u>1.0117</u>	<u>.9608</u>	<u>1.016</u>	<u>1881</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

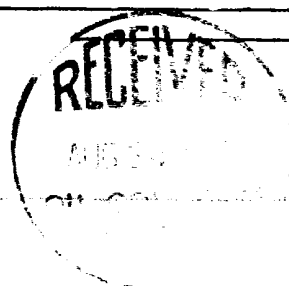
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1065 P_c 1134.2

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	<u>958</u> P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.									
2.						<u>917.8</u>	<u>216.4</u>		<u>5.24</u>
3.									
4.									
5.									

Absolute Potential: 7688 MCFPD; n .85/4.0871
COMPANY Pacific Northwest Pipeline Corporation
ADDRESS 418 1/2 West Broadway - Farmington, New Mexico
AGENT and TITLE C. R. Wagner - Well Test Engineer
WITNESSED Tommy Smith
COMPANY N.M.O.C.C.

REMARKS

El Paso Natural Gas Company gave O.K. to Test



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_f .

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