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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesaverde County Rio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6-21-57  
Company Northwest Production Corp. Lease "X" Well No. 14-10  
Unit A Sec. 10 Twp. 26N Rge. 3W Purchaser Not connected  
Casing 5 1/4 Wt. 15.5 I.D. \_\_\_\_\_ Set at 6042 Perf. 5466 To 5979  
Tubing 2-3/8 Wt. 4.7 I.D. \_\_\_\_\_ Set at 5908-5950 Perf. 5908 To 5906  
Gas Pay: From 5466 To 5979 L 5898 xG .670 -GL 3952 Bar.Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Dual - G-G  
Date of Completion: 6-15-57 Packer 5366 Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through 1 1/2" (Choke) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.						1701		914		51
2.		3/4"				443	70	926		3 hrs
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.	12.3650		435	.9905	.9463	1.048	5526
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> 9.402 (1-e<sup>-s</sup>) .250  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1713 P<sub>c</sub><sup>2</sup> 2934

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.									
2.	435	207	51.95	2699	675	882	2052		1.4304
3.									
4.									
5.									

Absolute Potential: 7228 MCFPD; n .75 1.308  
COMPANY \_\_\_\_\_ PACIFIC NORTHWEST PIPELINE CORPORATION  
ADDRESS \_\_\_\_\_ 405 1/2 West Broadway  
AGENT and TITLE C. E. Wagner, Well Test Engineer Farmington, New Mexico  
WITNESSED Emery C. Arnold  
COMPANY NM OCC

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  $P_t$ .

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DRILLING DEPARTMENT

COMPANY Northwest Production Corp.

LEASE "E" WELL NO. 14-10

DATE OF TEST 6-21-57

SHUT IN PRESSURE (PSIG): TUBING MV 1701 CASING PC 914 S. I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 3/4" T-C - Choke

FLOW THROUGH 2" tbg - MV WORKING PRESSURES FROM Csg - PC

TIME		CHOKER	Q (MCFD)	WELLHEAD WORKING	TEMP
HOURS	MINUTES	PRESSURE	15.025 PSIA & 60°F	PRESSURE (PSIG)	
	15	1005		924	
	30	807		925	
	45	637		925	69
1	0	592		925	69
2	0	481		925	69
3	0	443		926	70

START AT: 11:52 am END TEST AT 2:52 pm

REMARKS: Very heavy fog of H<sub>2</sub>O thru out test. Made some oil.

TESTED BY: C. R. Wagner

WITNESS: E. C. Arnold, NM OCC