

MM OCC - 3  
C.E. Aikman - 1  
Geo. Peppin - 1  
L. G. Truby - 1  
File - 1

PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY Northwest Production Corporation

LEASE 30-12 WELL NO. 3-10

DATE OF TEST 1-7-57

SHUT IN PRESSURE (PSIG): TUBING 642 CASING 643 S.I. PERIOD 9 DAYS

SIZE BLOW NIPPLE 3/4" B. M. Choke

FLOW THROUGH Tubing WORKING PRESSURES FROM Casing

TIME		PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
HOURS	MINUTES				
	34.5	373		558	53
	41.5	369		553	53
	50	366		548	53
1	00	361		539	52
	12	357		533	54
	26.5	354		523	53
	44	349		515	53
2	05	344		504	53
	30	339		495	54
3	00	334		485	54

START TEST AT 9:00 AM END TEST AT 12 Noon

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TESTED BY D. C. Adams

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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 Wildcat Formation Fruitland County San Juan  
Initial XX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 1-7-57  
Company Northwest Production Corp. Lease 30-12 Well No. 3-10  
Unit "L" Sec. 10 Twp. 30N Rge. 12W Purchaser Not connected  
Casing 5" Wt. 15.5# I.D. \_\_\_\_\_ Set at 1736\* Perf. 1754 To 1774  
Tubing 2-3/8" Wt. 4.7# I.D. \_\_\_\_\_ Set at 1724 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 1754 To 1774 L \_\_\_\_\_ Est. xG .65 -GL \_\_\_\_\_ Bar.Press. 12 psig  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single - G  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 12-28-56 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

\* PBD

OBSERVED DATA

Tested Through (P6666) (Choke) (V6666) Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.		<u>3/4" (AM)</u>	<u>334</u>		<u>54</u>	<u>642</u> <u>334</u>	<u>54</u>	<u>643</u> <u>483</u>		<u>Shot in</u> <u>3 hrs.</u>
2.										
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.	<u>14.1605</u>		<u>346</u>	<u>1.0058</u>	<u>.9608</u>	<u>1.038</u>	<u>4915</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 643 P<sub>c</sub><sup>2</sup> 413,449

No.	P <sub>w</sub> <u>1741/(643)</u>	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.	<u>497</u>					<u>247,009</u>	<u>166,440</u>		<u>2.4841</u>
2.									
3.									
4.									
5.									

Absolute Potential: 18,651 MCFPD; n .85/2.167

COMPANY Pacific Northwest Pipeline Corp.

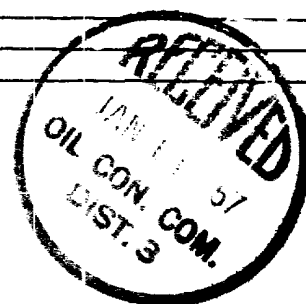
ADDRESS 4034 West Broadway

AGENT and TITLE Donald C. Adams - Well Test Engineer

WITNESSED

COMPANY

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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