NM OCC - 3
L.G. Truby - 1
Geo. Peppin - 1
File - 1

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation PC County Rio Arriba

Initial X Annual ____ Special ____ Date of Test 12-17-56

Company Northwest Production Corporation Lease "S" Well No. 3-1

Unit H Sec. 1 Twp. 24N Rge. 4W Purchaser Not connected

Casing 4½" Wt. 9.5# I.D. ____ Set at 3396 Perf. 3274 To 3302

Tubing 1½# Wt. 2.3 I.D. ____ Set at 3310 Perf. ____ To ____

Gas Pay: From 3274 To 3302 L ____ xG Est. .65 -GL ____ Bar.Press. ____

Producing Thru: Casing ____ Tubing X Type Well Single - Gas

Date of Completion: 12-6-56 Packer ____ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ Type Taps ____

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (~~Orifice~~) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						987		1014		SI
1.										
2.										
3.	1½	3/4				186		727		
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.							
2.	14.1605		198	1.0039	.9608	1.021	2761
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c ____ $(1-e^{-s})$ ____

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 1026 P_c^2 1053

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.	739					546	507		2.0769
3.									
4.									
5.									

Absolute Potential: 5138 MCFPD; n .85 1.861
COMPANY Pacific Northwest Pipeline Corporation
ADDRESS 405½ West Broadway, Farmington, New Mexico
AGENT and TITLE C. R. Wagner, 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.

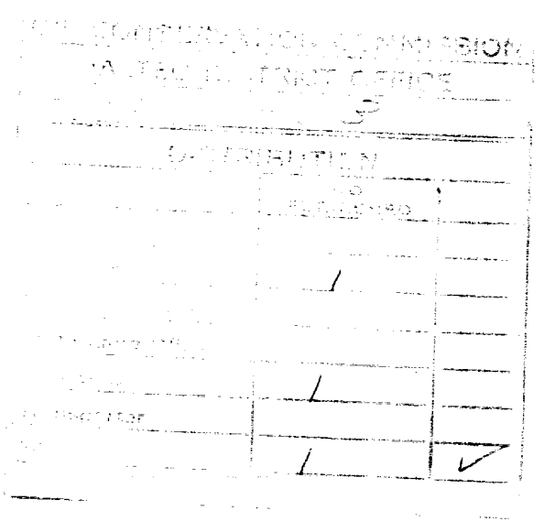
F_g = Gravity correction factor.

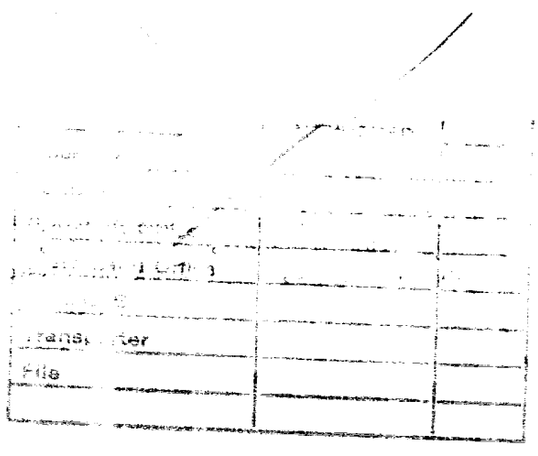
F_t = Flowing temperature correction factor.

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.





PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY **Northwest Production Corp.**

LEASE **"S"** WELL NO. **3-1**

DATE OF TEST **12-17-56**

SHUT IN PRESSURE (PSIG): TUBING **987** CASING **1014** S.I. PERIOD _____ DAYS

SIZE BLOW NIPPLE **3/4" Choke (Bureau of Mines)**

FLOW THROUGH **Tubing** WORKING PRESSURES FROM **Casing**

TIME HOURS	TIME MINUTES	PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
	34.5	217		819	42
	41.5	224		808	44
	50	264		802	46
1	0	282		793	48
	12	250		778	48
	26.5	228		765	48
	44	186		747	46
2	5	205		734	47
	30	239		727	50
3	0	326		727	56

START TEST AT **10:30 A.M.** END TEST AT **1:30 P.M.**

REMARKS: **Freezing through out test - made popping noise and blew particles of ice.**

Assumed 186 as final Choke pressure
Assumed 727 as final Working pressure

TESTED BY **C. R. Wagner**