

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 4 1/2" Wt. 9.5# I.D. _____ Set at 3396 Perf. 3274 To 3302
Tubing 1 1/2" 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 (Pbblbbl) (Choke) (Mblbbl) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Mblbbl) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						987		1014		SI
1.										
2.										
3.	1 1/2	3/4				186		727		
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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 1053

No.	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	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 405 1/2 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} = 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 .

OIL AND GAS COMMISSION SANTA FE, N.M.		
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PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY Northwest Production Corp.LEASE "S" WELL NO. 3-1DATE OF TEST 12-17-56SHUT IN PRESSURE (PSIG): TUBING 987 CASING 1014 S.I. PERIOD _____ DAYSSIZE BLOW NIPPLE 3/4" Choke (Bureau of Mines)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	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 pressureAssumed 727 as final Working pressureTESTED BY C. R. Wagner

WILSON CONSERVATION COMMISSION
DISTRICT OFFICE
Plus Received
DATE