NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Dakota County Rio Arriba

Initial XX Annual _____ Special _____ Date of Test 1-10-57

Company Northwest Production Corp. Lease "W" Well No. 2-5

Unit B Sec. 5 Twp. 26N Rge. 5W Purchaser Not connected

Casing 5½ Wt. 14, 15.5, 6 17 I.D. _____ Set at 7678 Perf. 7464 To 7572

Tubing 1-1/4 Wt. 2.3 I.D. _____ Set at 4771 Perf. _____ To _____

Gas Pay: From 7464 To 7572 L 7420 xG .65 -GL _____ Bar.Press. 12

Producing Thru: Casing _____ Tubing XX Type Well Triple - G -G -G
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-30-56 Packer Yes - 7420' Reservoir Temp. _____

OBSERVED DATA

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

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. MW psig	Diff. h_w	Temp. °F.	Press. DK psig	Temp. °F.	Press. PC psig	Temp. °F.	Duration of Flow Hr.
SI										
1.			1112			2167		1045		
2.										
3.	3/4" Prover		1110			96		1045		3 hr
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.	12.1783		108	1.0088	.9608	1.010	1288
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
F_c _____ $(1-e^{-s})$ _____ P_c 2179 P_c^2 4748

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.	108	12	23.92	572	169	181	4567		1.0396
3.									
4.									
5.									

Absolute Potential: 1326 MCFPD; n .75/1.0296
COMPANY Pacific Northwest Pipeline Corp.
ADDRESS 405½ E. Broadway, Farmington, New Mexico
AGENT and TITLE T. A. Dugan
WITNESSED _____
COMPANY _____

RECEIVED
APR 8 1957
OIL CON. COM.
DIST. 3

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.

DRILLING DEPARTMENT

COMPANY Northwest Production Corp.

LEASE "W" WELL NO. 2-5

DATE OF TEST 1-10-57

SHUT IN PRESSURE (PSIG): TUBING 1045 (SI PC) CASING 1112 (SI MV SI DK 2167) S. I. PERIOD 9 DAYS

SIZE BLOW NIPPLE 3/4" Critical Flow Prover Bot. Or. .65

FLOW THROUGH Tubing WORKING PRESSURES FROM _____

TIME HOURS	TIME MINUTES	Flow Prover PRESSURE	MV Q (MCFD) 15.025 PSIA & 60°F	PC WELLHEAD WORKING PRESSURE (PSIG)	TEMP
1	55 pm		Open		
	30	131	1113	1047	
	45	113	1113	----	
1	00	101	1113	----	90
1	15	120	1113	----	
1	30	100	1113	----	
1	45	99	1113		
2	00	107	1113	1045	51
2	15	102	1113		
2	30	100	1113		51
2	45	98	1110	1045	
3	00	96	1110	1045	51

START AT 1:55 pm END TEST AT 4:55 pm

REMARKS: 0 - 15 min - heavy flow of diesel and water
15 - 55 min - slug of diesel and water
1:05 - heavy slug of fluid
1:05 - 11:30 - slug of fluid - mostly water now
1:30 - 1:50 - slug of fluid - 5 min intervals, mostly water
1:50 - 2:10 - slug of fluid - 5 - 10 min intervals, mostly water
2:10 - 2:30 - heavy spray of fluid - mostly water
2:30 - 3:00 - spray of fluid

TESTED BY T. A. Dugan

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received		
DISTRIBUTION		
	NO. FURNISHED	
Operator		
Santa Fe	/	
Proration Office		
State Land Office		
U. S. G. S.	/	
Transporter		
File	/	✓