NEW MEXICO OIL CONSERVATION COMMISSION

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

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County Rio Arriba

Initial XX Annual _____ Special _____ Date of Test 3-4-57

Company Northwest Production Corp. Lease "W" Well No. 1-7

Unit "M" Sec. 7 Twp. 26N Rge. 5W Purchaser not connected

Casing 7-5/8 Wt. 24.0# I.D. _____ Set at 3295 Perf. 3060 To 3126

Tubing 1-1/4 Wt. 2.3# I.D. _____ Set at 3115 Perf. _____ To _____

Gas Pay: From 3060 To 3126 L _____ xG .650 -GL 2032 Bar.Press. 12

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

Date of Completion: 12-30-56 Packer _____ 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								1022		SI
1.		3/4	31		53			31	53	3 hours
2.										
3.										
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.	14.1605		43	1.0068	.9608	1.000	589
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c .527 $(1-e^{-s})$ .137

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1034 P_c^2 1,069,156

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.	43	1849	310.4	963	132	1981	1,068,958		1.0081
2.									
3.									
4.									
5.									

Absolute Potential: 589 MCFPD; n .85/1.0001

COMPANY Pacific Northwest Pipeline Corp.
ADDRESS 405½ West Broadway, Farmington, New Mexico
AGENT and TITLE C.E. Wagner, Well Test Engineer
WITNESSED _____
COMPANY _____

REMARKS

RECEIVED
MAR 20 1957
OIL CON. COM.
DIST. 3

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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PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY Northwest Production Corp.

LEASE "W" WELL NO. 1-7

DATE OF TEST 3-4-57

SHUT IN PRESSURE (PSIG): TUBING PC 1022 CASING MV 1158 DK 2555 S.I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 3/4" Choke

FLOW THROUGH PC - Csg WORKING PRESSURES FROM

TIME HOURS	TIME MINUTES	PC PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
	34.5	49	1156 MV	2554 DK	56
	41.5	47	1156	2555	57
	50	44	1151	2553	57
1	0	42	1155	2556	58
	12	41	1155	2556	56
	26.5	39	1155	2557	55
	44	37	1154	2557	55
2	5	35	1155	2558	54
	30	33	1155	2558	54
3	0	31	1155	2558	53

START TEST AT 12:50 pm END TEST AT 3:50 pm

REMARKS: Opened 1½" tub - thru "PC", gas died in approx 1 min - left open for 25 mins, still dead

"csg"

Start (PC) test thru (2" Valve) with 3/4" choke at 12:50 pm

TESTED BY C. R. Wagner