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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Blanco Formation Mesaverde County Rio Arriba
Initial XX Annual _____ Special _____ Date of Test 8-9-57
Company Northwest Production Corp. Lease "E" Well No. 7-28
Unit B Sec. 28 Twp. 26N Rge. 3W Purchaser Not connected
Casing 5½ Wt. 14 I.D. _____ Set at 6277 Perf. 5640 To 6190
Tubing 2-3/8 Wt. 4.7 I.D. _____ Set at 6180 Perf. _____ To _____
Gas Pay: From 5640 To 6190 L 6180 xG .650 -GL 4017 Bar.Press. _____
Producing Thru: Casing _____ Tubing XX Type Well Dual - G-G
Date of Completion: 7-7-57 Packer 5479' Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

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

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI		<u>3/4</u>				<u>532</u>		<u>982</u>		<u>SI</u>
1.						<u>132</u>	<u>65</u>	<u>986</u>		<u>3 hrs</u>
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.	<u>14.1605</u>		<u>144</u>	<u>0.9952</u>	<u>0.9608</u>	<u>1.013</u>	<u>1975</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.402 (1-e^{-S}) 0.253
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1100 P_c² 1210

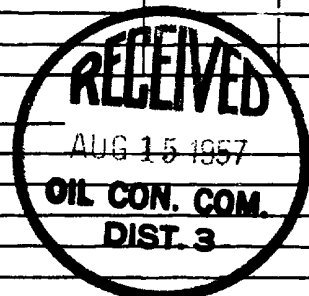
No.	$\frac{P_w}{P_t}$ (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-S})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.	<u>144</u>	<u>20.736</u>	<u>18.569</u>	<u>344.808</u>	<u>87.236</u>	<u>107.972</u>	<u>1022.036</u>		<u>1.184</u>
2.									
3.									
4.									
5.									

Absolute Potential: 2,242 MCFPD; n .75/1.135

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

REMARKS

Absolute potential calculated using a shut-in Mesaverde pressure of 1100 psia rather than the measured 544 psia.



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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DRILLING DEPARTMENT

COMPANY Northwest Production Corp.

LEASE "E" WELL NO. 7-28

DATE OF TEST 8-9-57

SHUT IN PRESSURE (PSIG): TUBING MV 532 CASING PC 982 S. I. PERIOD 9 DAYS

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

FLOW THROUGH Mesaverde WORKING PRESSURES FROM Pict Cliffs

TIME		CHOKE	Q (MCFD)	PC	TEMP
HOURS	MINUTES	PRESSURE	15.025 PSIA @ 60°F	WELLHEAD WORKING PRESSURE (PSIG)	
	15	222		982	64
	30	200		984	64
	45	182		984	65
1	0	170		985	65
2	0	145		985	65
3	0	132		986	65

START AT: 11:20 AM END TEST AT 2:20 PM

REMARKS: Well died and then unloaded stream of H₂O for first 9 mins.
Very wet through out test.

OK from NM OCC to test without witness

TESTED BY: C. R. Wagner

WITNESS: _____