

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool BASIN DAKOTA Formation DAKOTA County SAN JUAN  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 11-30-60  
Company NORTHWEST PRODUCTION CORP. Lease BLANCO 28-13 Well No. 1-7  
Unit P Sec. 7 Twp. 28N Rge. 12W Purchaser EL PASO NATURAL GAS CO.  
Casing 4 1/2 Wt. 9.5411 I.D. 4.000 Set at 6331 Perf. 6067 To 6167  
Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 6180.83 Perf. 6181 O.H. To \_\_\_\_\_  
Gas Pay: From 6067 To 6167 L 6181 xG est .650 -GL 4018 Bar.Press. \_\_\_\_\_  
Producing Thru: Casing 11-18-60 Tubing No X Type Well Single Gas  
Date of Completion: 11-18-60 Packer No Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_  
OBSERVED DATA

Tested Through (Prover) (Choke) (Master)

Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1990		2064		81
1.										
2.										
3.	2"	3/4				284	84	643		3 hrs
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.							
3.	12.265		276	0.9777	0.9806	1.023	3,280
4.							
5.							

## PRESSURE CALCULATIONS

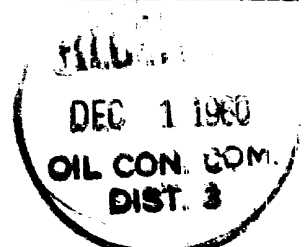
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2076 P<sub>c</sub><sup>2</sup> 4309.776

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.									
2.									
3.	655					429.025	3690.761		1.1166
4.									
5.									

Absolute Potential: 2546 MCFPD; n .75/1.0618

COMPANY NORTHWEST PRODUCTION CORP.  
ADDRESS 520 SUMMIT BLDG., ALBUQUERQUE, N. M.  
AGENT and TITLE C. E. Warner, Well Tester  
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  $P_t$ .

DRILLING DEPARTMENT

COMPANY NORTHWEST PRODUCTION CORP.

LEASE BLANCO 29-12 WELL NO. 1-7

DATE OF TEST 11-30-60

SHUT-IN PRESSURE (PSIG): TUBING 1890 CASING 2064 S.I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 2-3/8" T&G

FLOW THROUGH 3/4" T.C. CHOKER WORKING PRESSURES FROM CASING

TIME		PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
HOURS	MINUTES				
0	15	600		1363	
0	30	450		1080	
0	45	417		948	76
1	00	379		843	80
1	30	325		752	82
2	00	297		705	84
2	30	287		671	84
3	00	264		643	84

START AT: 10:00 a.m. END TEST AT: 1:00 p.m.

REMARKS: STARTED BLOWING HEAVY SPRAY DISTILLATE AND SOME WATER AFTER THREE MINUTES.  
WATER DIMINISHED AND DISTILLATE REMAINED STRAIGHT THROUGHOUT TEST.

TESTED BY: C. E. WERNER

WITNESS: \_\_\_\_\_