

## NEW MEXICO OIL CONSERVATION COMMISSION

MCDONALD OFFICE 600 Form C-122  
Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1958 MAY 23 AM 9:51

Pool Jalnet Formation Yates & 7. Rivers County LeaInitial \_\_\_\_\_ Annual \_\_\_\_\_ Special X Date of Test 4-15/19 - 57Company Water Drilling Company Lease Woolworth Well No. 3Unit H Sec. 28 Twp. 24 Rge. 37 Purchaser E.P.N.G.Casing 7 7/8 Wt. 24.04 I.D. 6.336 Set at 3270 Perf. 3060 To 3130Tubing None Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at \_\_\_\_\_ Perf. \_\_\_\_\_ To \_\_\_\_\_Gas Pay: From 3060 To 3130 L 3060 xG 0.650 GL 1989 Bar.Press. 13.2Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1949 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.								497		72
2.	4	1.000	4167.5-49.0		66			417		24
3.	4	1.000	4008.02-64.0		70			403		24
4.	4	1.000	3908.62-77.44		67			393		24
5.	4	1.000	3839.852-97.02		70			387		24

## FLOW CALCULATIONS

No.	Coefficient (PLG.) (24-Hour)	$\sqrt{h_{wpf}}$	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.	6.135	144.99		.9943	.9608	1.041	884
2.	6.135	162.58		.9887	.9608	1.039	984
3.	6.135	176.66		.9933	.9608	1.039	1.075
4.	6.135	196.03		.9887	.9608	1.037	1.184
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> 0.4915 (1-e<sup>-s</sup>) 0.128Specific Gravity Separator Gas 0.650

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 510.2 P<sub>c</sub> 260.3

No.	$\frac{P_w}{P_t}$ (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>	$\frac{P_w}{P_c}$
1.									
2.	430.2	185.1	0.43	0.18	0.023	185.1	75.2		
3.	415.2	172.4	0.48	0.23	0.029	172.4	67.9		
4.	406.2	165.0	0.53	0.28	0.036	165.0	95.3		
5.	400.2	160.2	0.58	0.34	0.044	160.2	100.1		

Absolute Potential: 3.075 MCFPD; n 1,000COMPANY E.P.N.G.ADDRESS Jal, N.M.AGENT and TITLE E. G. Smith

WITNESSED \_\_\_\_\_

COMPANY Water Drilling Co By A. D. Weiner Jr Sec. Treas.

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  $P_t$ .