

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates County LeaInitial \_\_\_\_\_ Annual \_\_\_\_\_ Special XX Date of Test 11-12/11-16-56Company Skelly Oil Company Lease Mexico "E" Well No. 1Unit 0 Sec. 20 Twp. 23 S Rge. 36 E Purchaser El Paso Natural Gas CompanyCasing 7" Wt. 20# I.D. 6.456" Set at 2900' Perf. \_\_\_\_\_ To \_\_\_\_\_Tubing None Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at \_\_\_\_\_ Perf. \_\_\_\_\_ To \_\_\_\_\_Gas Pay: From 3095 To 3500 L 2900 xG 0.670 -GL 1943 Bar.Press. 13.2Producing Thru: Casing XX Tubing \_\_\_\_\_ Type Well Single

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

Date of Completion: 9-22-50 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Broken) (Chokes) (Meter) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		1.500	826	11.56	70			924		72
2.		1.500	784	28.09	71			829		24
3.		1.500	751	43.56	68			788		24
4.		1.500	726	70.56	69			758		24
5.								736 *		24

\* Not enough draw down because of small orifice size.

## FLOW CALCULATIONS

No.	Coefficient (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.	13.99	98.48		0.9905	0.9463	1.091	1,410
2.	13.99	149.6		0.9896	0.9463	1.088	2,132
3.	13.99	182.43		0.9924	0.9463	1.087	2,605
4.	13.99	228.35		0.9915	0.9463	1.082	3,244
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

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

F<sub>c</sub> 0.4682 (1-e<sup>-S</sup>) 0.125

Specific Gravity Separator Gas \_\_\_\_\_

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

P<sub>c</sub> 917.2 P<sub>c</sub> 841.3

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.	842.2	709.3	0.6601	0.436	0.06	709.4	131.9		
2.	801.2	641.9	0.9982	0.996	0.12	642.0	199.3		
3.	771.2	594.7	1.220	1.49	1.9	596.6	244.7		
4.	749.2	561.3	1.519	2.31	2.9	563.2	278.2		
5.									

Absolute Potential: 8,500 MCFPD; n 0.968COMPANY Skelly Oil CompanyADDRESS Box 38, Hobbs, New Mexico

AGENT and TITLE \_\_\_\_\_

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.

$F_{pv}$  = 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  $P_t$ .