

9-000

1-EPNG, Parrish

1-EPNG, 1-Texas Nat'l. NEW MEXICO OIL CONSERVATION COMMISSION

1-P. A. 1-Lion

2-Artec O & G

1-NW Prod.

1-D, 2-F

3-Tidewater, Dur. 2-Mid.

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122

Revised 12-1-55

Pool Basin Dakota Formation Dakota County San Juan

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 4/26/62

Company Southwest Production Company Lease Jose Jaquez Well No. 1

Unit K Sec. 24 Twp. 30N Rge. 12W Purchaser El Paso Natural Gas Company

Casing 4 1/2 Wt. 10.50 I.D. 4.052 Set at 6548 Perf. 6332 To 6486

Tubing 1 1/2 Wt. 2.75 I.D. 1.610 Set at 6309 Perf. Open To End

Gas Pay: From 6332 To 6486 L 6309 xG .67 -GL 4227.0 Bar.Press. 12.0

Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single Gas

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

Date of Completion: 4/17/62 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Prover) (Choke) (Restrictor) 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
SI						2083		2104	7 days
1.		3/4"	278		80	278	80	1348	3 hours
2.									
3.									
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.	12.3650		290	.9813	.9463	1.028	1.423
2.							
3.							
4.							
5.							

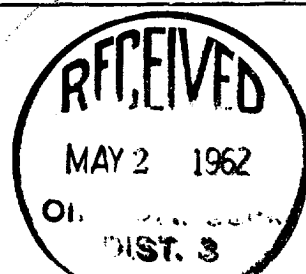
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-S</sup>)  
 P<sub>c</sub> 2116 P<sub>c</sub><sup>2</sup> 4477.4  
 P<sub>w</sub> 1360 P<sub>w</sub><sup>2</sup> 1849.6

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.						1849.6	2627.8		.642
2.									
3.									
4.									
5.									

Absolute Potential: 5,104 MCFPD; n .75  
 COMPANY Southwest Production Company  
 ADDRESS 207 Petr. Club Plaza, Farmington, New Mexico  
 AGENT and TITLE George L. Hoffman, Production Engineer  
 WITNESSED Mr. Art Smith  
 COMPANY El Paso Natural Gas 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  $P_t$ .