

1-N, I, Mondrick 1-TCA  
 1-Bill Barriah 1-Sneddy, 1-F  
 1-Comm. of Public Lands  
 2-EPWS, El Paso, Permian  
 1-Phillips

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 11/14/63

Company Beta Development Co. Lease San Juan 29-6 Unit Well No. 75

Unit N Sec. 23 Twp. 29 N Rge. 6 W Purchaser El Paso Natural Gas Company

Casing 4" Wt. 11.6 I.D. 4.000 Set at 8189 Perf. 7987 To 8088

Tubing 2 3/8" Wt. 4.70 I.D. 1.995 Set at 8053 Perf. Open To End

Gas Pay: From 7987 To 8088 L 8053 xG .67 -GL 5395.5 Bar.Press. 12.0

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

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

Date of Completion: 11/4/63 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (PROVER) (Choke) (CHOKE) Type Taps \_\_\_\_\_

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (CHOKE) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	
SI									
1.		<u>3/4"</u>	<u>292</u>		<u>70</u>	<u>2700</u>	<u>70</u>	<u>2700</u>	<u>7 days</u>
2.						<u>282</u>		<u>1871</u>	<u>3 hrs.</u>
3.									
4.									
5.									

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor Ft	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.3650</u>		<u>264</u>	<u>.9995</u>	<u>.9463</u>	<u>1.026</u>	<u>3,139</u>
2.							
3.							
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> 2720 P<sub>c</sub><sup>2</sup> 7398.4  
 P<sub>w</sub> 1083 P<sub>w</sub><sup>2</sup> 1172.9

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.						<u>1172.9</u>	<u>6225.5</u>		<u>.629</u>
2.									
3.									
4.									
5.									

Absolute Potential: 3.572 MCFPD; n .75

COMPANY Beta Development Co.  
 ADDRESS 234 Petr. Club Plaza, Farmington, New Mexico  
 AGENT and TITLE George L. Hoffman, Production Engineer  
 WITNESSED C. Wagner  
 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  $P_t$ .