

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesaverde County San Juan

Initial _____ Annual _____ Special _____ Date of Test December 26, 1956

Company Southern Union Gas Company Lease Nordhaus Well No. 2

Unit L Sec. 11 Twp. 31N Rge. 9W Purchaser Southern Union Gas Company

Casing 7 5/8" Wt. 26.40 I.D. 6.969 Set at 0-3189 Perf. 5264 To 5762

Tubing 2 3/8" Wt. 4.7 I.D. 2.0 Set at 5719 Perf. 5689 To 5719

Gas Pay: From 5264 To 5762 L 5689 xG 0.67 -GL 3811 Bar.Press. 12.0

Producing Thru: Casing _____ Tubing X Type Well Single-Gas

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

Date of Completion: Dec. 5, 1956 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 _w	Temp. °F.	Press. psig	Temp. °F.		Press. psig	Temp. °F.
SI						<u>1042</u>		<u>1042</u>		<u>21 days</u>
1.		<u>3/4</u>	<u>321</u>		<u>70°F</u>	<u>321</u>	<u>70°F</u>	<u>811</u>		<u>3 hours</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.3650</u>		<u>333</u>	<u>0.9905</u>	<u>0.9463</u>	<u>1.033</u>	<u>3987</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c _____ (1-e^{-S})

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 1054 P_c² 1110.9
 P_w _____ P_w² 677.3

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.						<u>677.3</u>	<u>433.6</u>		<u>0.780</u>
2.									
3.									
4.									
5.									

Absolute Potential: 8054 MCFPD; n 0.75

COMPANY Southern Union Gas Company

ADDRESS Box 815 Farmington, New Mexico

AGENT and TITLE Gilbert Roland Jr., Jr. Engineer

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 .

OIL CONSERVATION COMMISSION	
DISTRICT OFFICE	
NO. 3	
DISTRIBUTION	
NO.	
SUBMITTED	
	1