

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County San Juan
Initial X Annual _____ Special _____ Date of Test September 26, 1957
Company Southern Union Gas Company Lease Navajo Indian Well No. 1-C
Unit D Sec. 31 Twp. 27N Rge. 8W Purchaser _____
Casing 5 1/2" Wt. 15.5 I.D. 4.950 Set at 2102 Perf. 1951 To 2030
Tubing 1" Wt. 1.7 I.D. _____ Set at 2024 Perf. 2004 To 2024
Gas Pay: From 1951 To 2030 L _____ xG 0.67 Est. -GL _____ Bar. Press. 12.0
Producing Thru: Casing X Tubing _____ Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: August 31, 1957 Packer _____ 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										
1.		<u>3/4"</u>	<u>274</u>		<u>64°</u>	<u>698</u>		<u>698</u>		<u>26 days</u>
2.						<u>349</u>		<u>274</u>		<u>3 hours</u>
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>286</u>	<u>0.9962</u>	<u>0.9463</u>	<u>1.031</u>	<u>3,436</u>
2.							
3.							
4.							
5.							

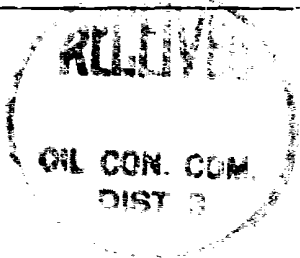
PRESSURE CALCULATIONS

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 710 P_c² 504.1
P_w 361 P_w² 130.3

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>130.3</u>	<u>373.8</u>		<u>0.509</u>
2.									
3.									
4.									
5.									

Absolute Potential: 4,432 MCFPD; n 0.85
COMPANY Southern Union Gas Company
ADDRESS P. O. Box 815 Farmington, New Mexico
AGENT and TITLE Gilbert Noland, Jr. Asst. Drilling Superintendent
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		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>3</u>		
DISTRIBUTION		
Copy sent to _____	_____	_____
_____ To: Mr. _____	_____	_____
_____ From: _____	_____	_____
_____ State Dept. _____	_____	_____
U.S.G.S. _____	_____	_____
Transporter _____	_____	_____
File _____	_____	_____