Form C-122
Revised 12-1-55

RE-WORKED
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS
Cliffs

Pool __Fulcher Kutz Pictured/__ Formation __Pictured Cliffs__ County__San Juan__

Initial_____ Annual_____ Special __XX__ Date of Test__7-28-63__

Company__Southern Union Prod. Co.__ Lease __Congress__ Well No.__3__

Unit __M__ Sec. __35__ Twp. __29-N__ Rge. __11-W__ Purchaser__Southern Union Gas Co.__

Casing__3-1/2__ Wt. __9.30__ I.D. __2.992__ Set at __1936__ Perf. __1848__ To __1879__

Tubing__1-1/2__ Wt. __2.90__ I.D. __1.610__ Set at __1816__ Perf. __1806__ To __1816__

Gas Pay: From__1848__ To __1879__ L __1806__ xG __.670__ -GL __1210__ Bar.Press. __12.0__

Producing Thru: Casing_____ Tubing__XX__ Type Well __Single Gas__

Date of Completion: __6-14-63__ Packer_____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp._____

OBSERVED DATA

Tested Through (Prover) (Choke) (Orifice)   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						237		237		7 days
1.	2	1/4	39		74°	39	74°	196		3 hrs.
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.	12.3650		51	.9068	.9463	-	989
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_____
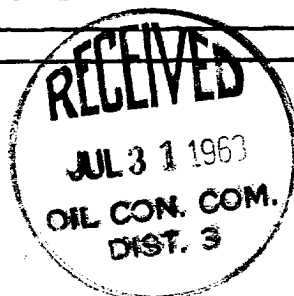Specific Gravity Flowing Fluid_____
P_c __249__ P_c^2 __62.0__

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	$\frac{P_w}{P_c}$
1.						43.3	18.7		.035
2.									
3.									
4.									
5.									

Absolute Potential: __1611__ MCFPD; n __.85__

COMPANY __Southern Union Production Company__
ADDRESS __P. O. Box 665 - Farmington, New Mexico__
AGENT and TITLE __Verne Rockhold, Jr. Engineer__
WITNESSED __Val Ripper - Production Superintendent__
COMPANY __Southern Union Production Company__

REMARKS

cc: 3 - New Mexico Oil Conservation Commission
1 - Mr. Paul J. Clote
1 - Mr. L. S. Bessemink
1 - Mr. Val Ripper
1 - Mr. Andy Otto
1 - Mr. Bob Corliss
1 - File

Well Re-Worked

RECEIVED
JUL 3 1 1963
OIL CON. COM.
DIST. 3

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.