

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-6-81			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 2-20-81		Total Depth 6447'		Plug Back TD 6404'		Elevation 5557' GR		Farm or Lease Name Cozzens "C"	
Csq. Size 5.500	Wt. 15.5#	d 4.050	Set At 6445'	Perforations: From To		Well No. 1E			
Tbg. Size 1.900	Wt. 2.90#	d 1.610	Set At 6342'	Perforations: From 6164' To 6352'		Unit E	Sec. 20	Twp. 29	Rge. 11
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple						Packer Set At 2915'		County San Juan	
Producing Thru Tbg.		Reservoir Temp. °F p		Mean Annual Temp. °F		Baro. Press. - P _a		State New Mexico	
L	H	Gg	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1161				
1.	2" x 3/4"						137				1 hr.
2.							114				2 hrs.
3.							109				3 hrs.
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		121.2	1.0000	.9258	1.0000	1387
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas	XXXXXX
3.					Specific Gravity Flowing Fluid	XXXXXX
4.					Critical Pressure	P.S.I.A.
5.					Critical Temperature	R

$P_c 1173.2$ $P_w^2 1376.398.2$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0108$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0081$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²				
1		121.2	14689.4	1361708.8				
2								
3								
4								
5								

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1398$

Absolute Open Flow	Mcfd @ 15.025	Angle of Slope @	Slope, n 75
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Remarks: Water throughout test

Approved By Division	Conducted By: Kelly Maxwell	Calculated By: James Smith	Checked By:
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