

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form O-122
Revised 5-1-66

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-4-78																																																																																															
Company Southland Royalty Company				Connection Southern Union Gathering Company																																																																																																	
Pool Undesignated				Formation Fruitland		Unit																																																																																															
Completion Date 9-28-78		Total Depth 3052'		Plug Back TD 3010'		Elevation 6110' GR																																																																																															
Form or Lease Name Childers		Well No. #2		Unit M		Sec. Twp. Rge. 1 - T31N - R11W																																																																																															
Csg. Size 5.500	Wt. 15.50#	d 4.950	Set At 3052'	Perforations: From 2535' To 2749'		Well No. #2																																																																																															
Tub. Size 1.660	Wt. 2.40#	d 1.380	Set At 2773'	Perforations: From To		Unit M																																																																																															
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Multiple G.G.				Packer Set At 2801'		County San Juan																																																																																															
Producing Thru Tbg.		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a 12.2																																																																																															
State New Mexico		L		H		Gg																																																																																															
						Prover																																																																																															
						Meter Run																																																																																															
						Taps																																																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="6">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th rowspan="2">Duration of Flow</th> </tr> <tr> <th>NO.</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. h_w</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> </tr> <tr> <td>SI</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>937</td> <td></td> <td>937</td> <td></td> <td></td> </tr> <tr> <td>1.</td> <td>2"</td> <td>X</td> <td>3/4"</td> <td></td> <td></td> <td></td> <td>90</td> <td></td> <td>457</td> <td></td> <td>1 hr</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>80</td> <td></td> <td>394</td> <td></td> <td>2 hrs</td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>73</td> <td></td> <td>354</td> <td></td> <td>3 hrs</td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								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							937		937			1.	2"	X	3/4"				90		457		1 hr	2.							80		394		2 hrs	3.							73		354		3 hrs	4.												5.											
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							937		937																																																																																												
1.	2"	X	3/4"				90		457		1 hr																																																																																										
2.							80		394		2 hrs																																																																																										
3.							73		354		3 hrs																																																																																										
4.																																																																																																					
5.																																																																																																					
RATE OF FLOW CALCULATIONS																																																																																																					
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcf/d																																																																																														
1	12.365		85.2	1.0000	.9258	1.0000	975																																																																																														
2.																																																																																																					
3.																																																																																																					
4.																																																																																																					
5.																																																																																																					
NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/ft ³ A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas _____ XXXXXXXXXX Specific Gravity Flowing Fluid _____ XXXXXX Critical Pressure _____ P.S.I.A. _____ P.S.I.A. Critical Temperature _____ F _____ F																																																																																																
1																																																																																																					
2.																																																																																																					
3.																																																																																																					
4.																																																																																																					
5.																																																																																																					
F _c 949.2 F _c ² 900,981 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>P_i²</th> <th>P_w</th> <th>P_w²</th> <th>P_i² - P_w²</th> </tr> <tr> <td>1</td> <td></td> <td>366.2</td> <td>134,102</td> <td>766,879</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²	1		366.2	134,102	766,879	2					3					4					5																																																																				
NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²																																																																																																	
1		366.2	134,102	766,879																																																																																																	
2																																																																																																					
3																																																																																																					
4																																																																																																					
5																																																																																																					
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1749$ (2) $\left[\frac{P_i^2}{P_c^2 - P_w^2} \right]^n = 1.1468$ ADD #1 $\left[\frac{P_i^2}{P_c^2 - P_w^2} \right]^n = 1118$																																																																																																					
Absolute Open Flow 1,118 Mf/d @ 14.7 psia Angle of Slope _____ Slope, n .85																																																																																																					
Remarks:																																																																																																					
Approved By Commission		Conducted By: Bob Shindledecker		Checked By: Odell Farley		Checked By:																																																																																															