

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-13-84		JUL 26 1984		
Company Southland Royalty Company				Connection Northwest Pipeline Corporation					
Pool Basin				Formation Dakota			Unit DIST. 3		
Completion Date 6-05-84		Total Depth 5860'		Plug Back TD 5815'		Elevation 5376' GL		Farm or Lease Name McWhorter-Duncan	
Csq. Size 4.500	Wt. 10.5#	d 4.052	Set At 5860'	Perforations: From To		Well No. 1			
Thq. Size 2.375	Wt. 4.7#	d 1.995	Set At 5648'	Perforations: From 5534' To 5714'		Unit Sec. Twp. Rye. K 10 29N 14W			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At ---		County San Juan			
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		State New Mexico	
L	H	G _g .700	% 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.	
51							1830		1831	
1.	2"	X	3/4"				256		911	1 hr
2.							202		761	2 hrs
3.							153		611	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, Mcfd
1	12.365		165.2	1.0000	.9258	1.0000	1891
2.							
3.							
4.							
5.							

NO.	P _t	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 _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 1843.2 P _c ² 3397386.2				
NO.	P _t ²	P _w	P _c ²	P _c ² - P _w ²
1		623.2	388378.2	3009008.0
2				
3				
4				
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.129$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.095$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2071$$

Absolute Open Flow 2071		Mcfd @ 15.025	Angle of Slope @ _____	Slope, n _____
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Remarks: Light mist of water throughout test

Approved by Division	Conducted By: Don Thompson	Calculated By: James W. Smith	Checked By: C. Terry Hobbs
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