

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-18-75		JUL 28 1975	
Company Atlantic Richfield Company				Connection None			
Pool Red Lake Penn Gas				Formation Morrow Gas		Unit O.C.C. ARTESIA OFFICE	
Completion Date 7-18-75		Total Depth 9350		Plug Back TD 9289		Elevation 3288 GL	
Farm or Lease Name Stirling Com				Well No. 1			
Csq. Size 5.5	Wt. 15.5	d 4.950	Set At 9350	Perforations: From 9032 To 9174		Unit 1	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 8903	Perforations: From Open ended To		Unit Sec. Twp. Rge. F 7 18s 27e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8903		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 152 @ 8875		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 9103		H -		G _g 0.654		% CO ₂ 3.261	
				% N ₂ 0.390		% H ₂ S 0.00	
Prover		Meter Run X		Taps F			

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							508		Packer		73.0
1.	3" 14/64	0.500	420	92	112	247	82				1.0
2.	3" 12/64	0.500	375	50	113	380	82				1.0
3.	3" 10/64	0.500	300	52	114	406	83				1.0
4.	3" 8/64	0.500	270	44	114	447	84				1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	1.183	199.65	433.2	0.9518	1.237	1.013	281.7
2	1.183	139.32	388.2	0.9518	1.237	1.009	195.8
3	1.183	127.61	313.2	0.9518	1.237	-	177.7
4	1.183	111.63	283.2	0.9518	1.237	-	155.5
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.29	572	1.57	0.974	Dry Gas	-	0.654	XXXXXX	686	365
2	0.20	573	1.57	0.983						
3	0.19	574	1.57	-						
4	0.16	574	1.57	-						
5										

P _c 697.2 P _c ² 486.1		(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.610$		(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.337$	
NO	P _r ²	P _w ²	P _w ²	P _c ² - P _w ²	
1	429.2	181.2	301.9		
2	568.2	322.9	163.2		
3	589.2	347.2	138.9		
4	608.2	369.9	116.2		
5					

Absolute Open Flow 377 Mcfd @ 15.025		Angle of Slope 58° 37'		Slope, n 0.610	
Remarks: * BHP @ (-5815)' 9103' used for pressure calculations					
Approved By Commission:		Conducted By: Coleman Petr. Engr. Co.		Calculated By: Joe A. Coleman	
				Checked By: Joe A. Coleman	