

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

Form C-122
Revised 9-1-65

RACE VALLEY

Type Test ☒ Initial ☐ Annual		Date May 18, 1977	
Company Atlantic Richfield Company		None	
Pool Grayburg Morrow		Unit A.C.C.	
Completion Date May 13, 1977		Total Depth 11063'	
Casing Size 5 1/2"		Set At 11062'	
Tubing Size 2.875		Set At 10795'	
Perforations From 10911' To 10929'		Well No. 1	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 10775'	
Producing Thru Tubing		Reservoir Temp. °F 160 @ 10920	
Mean Annual Temp. °F 60°F		State New Mexico	
Gg 0.672		% CO ₂ 0.27	
% N ₂ 0.70		Prever 0.00	
Meter Run 4		Type 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. DWI	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	4 9/64	2.000		600	5.5	110	3260	77			
2.	4 10/64	2.000		605	9.0	96	3152	77			
3.	4 12/64	2.000		605	14.0	89	3015	77			
4.	4 14/64	2.000		615	23.0	81	2779	78			
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.	19.81	58.07	613.2	0.9551	1.220	1.047	1403.43
2.	19.81	74.58	618.2	0.9671	1.220	1.053	1835.55
3.	19.81	93.03	618.2	0.9732	1.220	1.056	2310.65
4.	19.81	120.12	628.2	0.9804	1.220	1.059	3014.11
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Ratio, bbl/Mcf	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	0.91	570	1.51	0.912	50.976		
2.	0.92	556	1.47	0.902			
3.	0.92	549	1.45	0.897			
4.	0.93	541	1.43	0.891			
5.							

NO.	P _r	T _w *	P _w	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 4.373$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.115$
1.		4548.2	20686.1	2954.9		
2.		4429.2	19617.8	4023.2		
3.		4270.2	18234.6	5406.4		
4.		4005.2	16041.6	7599.4		
5.						

Absolute Open Flow 7198		Angle of Slope @ 52° 24'		Slope, n 0.770	
Remarks: * BHP @ (-7376) 10920 used for pressure Calculations					
Approved By Commission:		Conducted By: Jarrel Services, Inc		Checked By: Joe A. Coleman	