

NEW MEXICO OIL CONSERVATION COMM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-11-82							
Company MESA PETROLEUM CO.				Connection UNCONNECTED							
Pool WHITE CITY PENN				Formation MORROW							
Completion Date 8-11-82		Total Depth 11,574'		Plug Back TD 11,519'							
				Elevation 3374'							
Csg. Size 4 1/2"		Wt. 13.5#		Perforations: From 11,049' To 11,453'							
Trq. Size 2 3/8"		Wt. 4.7#		Perforations: From OPEN ENDED To							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packor Set At 10,944'							
Producing Thru L 10,944'		Reservoir Temp. °F 168° @ 11,573'		Mean Annual Temp. °F 60							
H 10,944'		Gg .572		Baro. Press. - P _a 13.2							
		% CO ₂ 1		% N ₂ .3							
				% H ₂ S							
		Prover		Meter Run 3"							
				Taps FLANGE							
FLOW DATA											
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	Duration of Flow
1.	3" x 1.75"			680	32	76	3050	55			1 HR
2.	3" x 1.75"			675	59	75	2750	78			1 HR
3.	3" x 1.75"			720	82	76	2370	82			1 HR
4.	3" x 1.75"			790	99	80	2050	83			1 HR
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.	15.61	148.9376	693.2	.9850	1.322	1.048	3173				
2.	15.61	201.5038	688.2	.9859	1.322	1.048	4296				
3.	15.61	245.1987	733.2	.9850	1.322	1.048	5223				
4.	15.61	281.9872	803.2	.9813	1.322	1.054	6018				
5.											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1.	1.03	536	1.553	.910	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.	1.01	535	1.551	.911	Specific Gravity Separator Gas _____ X X X X X X X X						
3.	1.08	536	1.553	.910	Specific Gravity Flowing Fluid _____ X X X X X						
4.	1.19	540	1.570	.900	Critical Pressure _____ 676 P.S.I.A.						
5.					Critical Temperature _____ 345 R						
P _c 3483.2 P _c ² 12133					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.7969$						
					(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.0125$						
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10,500$						
1.	9383	3188	10163	1970							
2.	7635	3011	9066	3067							
3.	5680	2792	7795	4338							
4.	4257	2659	7070	5063							
5.											
Absolute Open Flow 10,500 Mcfd @ 15.025				Angle of Slope 55.8°		Slope, n .68					
Remarks:											
Approved By Commission:		Conducted By: E.L. BUTTROSS, JR		Calculated By: <i>ELB</i> 8-17-82		Checked By:					