

MULTIPOINT ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-65

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AUG 7 1978

MESA-PBD

Type Test ☒ Initial ☐ Annual ☐ Special		SEP 20 1978		Test Date 7/26/78			
Company Mesa Petroleum Company			Connection O.C.C. Air ARTESIA, OFFICE				
Pool Undesignated			Formation Atoka			Unit	
Completion Date 7/17/78		Total Depth 9090		Plug Back TD 9050		Elevation G.L. 3593	
Csg. Size 4 1/2		WI. 11.6/10.5		Set At 9090		Perforations: From 8840 To 8852	
Thq. Size 2 3/8		WI. J -55		Set At 8762		Perforations: From To	
Type Well - Single - Dradenthead - G.C. or G.O. Multiple Single				Packer Set At 8762		Farm or Lease Name Diamond Federal	
Producing Thru Tubing		Reservoir Temp. °F 168°		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 8762		H 8762		G _g .655		State New Mexico	
				% CO ₂ .265		County Eddy	
				% N ₂ .880		City Artesia	
				% H ₂ S		Prover 4"	
						Meter Run 4"	
						Taps Flange	

FLOW DATA							TUBING DATA		CASINO 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							2440				72 Hrs
1.	4	X	1.750	505	4.5	102	1925				1 Hr
2.	4	X	1.750	520	7.0	98	1688				1 Hr
3.	4	X	1.750	522	14.0	83	1280				1 Hr
4.	4	X	1.750	518	20.0	82	820				1 Hr
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	14.93	48.29	518.2	.9619	1.236	1.042	893
2	14.93	61.09	533.2	.9653	1.236	1.045	1137
3	14.93	86.56	535.2	.9786	1.236	1.049	1640
4	14.93	103.07	531.2	.9795	1.236	1.050	1956
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcft/bbl.
1.	.77	562	1.49	.921	A.P.I. Gravity of Liquid Hydrocarbons		
2.	.80	558	1.48	.916	Specific Gravity Separator Gas	.655	XXXXXXX
3.	.80	543	1.44	.908	Specific Gravity Flowing Fluid	XXXXX	
4.	.79	542	1.43	.907	Critical Pressure	670 P.S.I.A.	P.S.I.A.
5.					Critical Temperature	378 R	R

NO.	P _t	P _w	P _w ²	P _t ² - P _w ²
1	2453.2	1943.4	3776.9	2241.3
2	2453.2	1711.0	2927.4	3090.8
3	2453.2	1321.0	1745.1	4273.1
4	2453.2	897.7	805.9	5212.3
5				

(1) $\frac{P_t^2}{P_t^2 - P_w^2} = 1.155$		(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 1.141$	
ACF = 0		2.231	

Absolute Open Flow		Mcfd @ 15.025		Angle of Slope θ		Slope, n	
2,231				47.5		.915	

Remarks:	

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Larry Davis	Larry Davis	