

MULTIPOINT AND ONE POINT BACK PRESSURE TEST JR GAS WELL

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SF
File
122

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 02-11-80	FEB 18 1980	
Company MESA PETROLEUM		TO AIR		O. C. D.
Well Logan Draw Morrow		Formation MORROW		Test ARTESIA, OFFICE
Completion Date 01-01-80		Total Depth 9590	Flow Line To 9506	Elevation 3323 GL
Casing Size 5 1/2		WT. 17 #	Set At	Perforations From 9465 To 9490
Tubing Size 2 3/8		WT. 4.7	Set At	Perforations From open To end
Type Well - Single - Protobhead - G.G. or G.O. Multiple SINGLE		Percent Set At 9365	Well No. # 1	
Producing Thru TBG.		Reservoir Temp. °F 168 @ 9365	Mean Annual Temp. °F 13.2	State NEW MEXICO
L 9365	H 9365	Gg .625	% CO ₂ 1.11	% N ₂ 3.30
		% H ₂ S	Prover	Meter Run 4"
				FLG.

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	
51							2850				72 HR.
1.	4 X 1.00			600	4.	70	2525				1 HR.
2.	4 X 1.00			600	7.5	86	2225				1 HR.
3.	4 X 1.00			600	14.	91	1690				1 HR.
4.	4 X 1.00			625	21.	95	900				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 Fg	Super. Compens. Factor, Fpv	Rate of Flow Q, MGD
1	4.753	49.53	613.2	.9905	1.265	1.050	310
2	4.753	67.82	613.2	.9759	1.265	1.044	415
3	4.753	92.65	613.2	.9715	1.265	1.043	564
4	4.753	115.77	638.2	.9680	1.265	1.043	703
5.							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.92	530	1.49	.907			.625		670	355
2.	.92	546	1.54	.917						
3.	.92	551	1.55	.919						
4.	.95	555	1.56	.919						
5.										

NO.	P _f	P _w	P _w ²	P _f ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.115$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.070$
1		2538.3	6443.0	1754.9		
2		2239.0	5013.1	3184.8		
3		1705.4	2908.4	5289.5		
4		921.2	848.7	7349.2		
5						

Absolute Open Flow 752 MGD @ 15.025 Angle of Slope @ 58.0 Slope, n .625

Approved By: _____ Conducted By: JOHN DAVIS Checked By: LARRY DAVIS