

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

SK
File
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12/12/79	DEC 20/1979
Company MESA PETROLEUM Co.		Connection AIR	
Well Name UNDESIGNATED <i>Drawn at 1000 ft</i>		Formation <i>atoken</i> MORROW	
Completion Date 9/21/79	Total Depth 9554	Flow Rate T/D 9474	Elevation 3498 GL
Casing Size 5 1/2	Well No. 17	Set At 9554	Perforations: From 9051 To 9142
Tub. Size 2 3/8	Well No. 17	Set At 8981	Perforations: From To
Type Well - Single - Prodenhed - G.G. or G.O. Multiple SINGLE		Packer Set At 8981	County EDDY
Producing Thru TBG.	Reservoir Temp. °F 164° 8981	Mean Annual Temp. °F 60°	Baro. Press. - P _g 13.2
L 8981	H 8981	G _g .747	% CO ₂ .618
		% N ₂ 4.249	% H ₂ S
		Prover	Motor 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	Duration of Flow
51							2675				72 HR.
1.	4 X 1.000			505	2.0	72	2380	55			1 HR.
2.	4 X 1.000			505	3.75	100	2040	61			1 HR.
3.	4 X 1.000			510	6.875	119	1680	64			1 HR.
4.	4 X 1.000			516	13.0	121	1090	63			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, Mhd
1	4.753	32.19	518.2	.9887	1.180	1.045	187
2	4.753	44.08	518.2	.9636	1.180	1.038	247
3	4.753	59.97	523.2	.9477	1.180	1.033	329
4	4.753	82.94	529.2	.9460	1.180	1.033	455
5							

NO.	P _g	Temp. °R	T _g	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	.77	532	1.46	.916	dry		.618		671	365
2	.77	560	1.53	.928						
3	.78	579	1.59	.938						
4	.79	581	1.59	.937						
5										

NO.	P _g ²	P _w ²	P _w ² - P _g ²
1	2393.4	5728.3	1498.1
2	2053.6	4217.2	3009.2
3	1694.0	2869.8	4356.6
4	1105.9	1223.0	6003.4
5			

(1) $\frac{P_g^2}{P_g^2 - P_w^2} = 1.204$ (2) $\left[\frac{P_g^2}{P_g^2 - P_w^2} \right]^n = 1.193$

AOI = Q $\left[\frac{P_g^2}{P_g^2 - P_w^2} \right]^n = .543$

Posted & Book
10 2 + 80
1-3-80
SI

Absolute Open Flow	543	Mhd @ 15.025	Angle of Slope	46.5 *	Slope, n	.951
Remarks:						
Approved By	Conducted By	Calculated By	Checked By			
	JOHN DAVIS	LARRY DAVIS				