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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

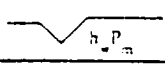
30-015-30566

Form C-122
Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MARATHON OIL CO.				Lease or Unit Name ASA WALKER '33' STATE			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5/1/99		Well No. 1	
Completion Date 4/20/99		Total Depth 11,050		Plug Back TD 10,888'		Elevation 3544 GL	
Log. Size 7"		Wt. 26#		Set At 6.276		10,888'	
Log. Size 2-7/8		Wt. 6.5#		Set At 2.441		10,681'	
Type Well - Single - Bradenhead - G.G. or G.Q. Multiple SINGLE				Packer Set At 10,648		Formation MORROW	
Producing Thru TGB		Reservoir Temp. °F 174.1		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 10681		II 10681		G _g .623		% CO ₂ .374	
				% N ₂ .296		% H ₂ S -0-	
				Prover -0-		Meter Run 4.026	
						Taps FLG	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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	
1.	4.026	X 1.750	100	7"	94°	3100	72°			60 min
2.	4.026	X 1.750	110	28"	92°	3018	74°			60 min
3.	4.026	X 1.750	140	58"	82°	2900	76°			60 min
4.	4.026	X 1.750	190	74"	82°	2758	76°			60 min
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf/d
1.	14.93	28.1	113.2	.9688	1.267	1.041	536
2.	14.93	58.7	123.2	.9706	1.267	1.041	1121
3.	14.93	94.2	153.2	.9795	1.267	1.043	1820
4.	14.93	122.6	203.2	.9795	1.267	1.043	2369
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	N/A	Moisture
1.	.82	554	1.53	.923	A.P. I. Gravity of Liquid Hydrocarbons	N/A	Des
2.	.81	552	1.52	.922	Specific Gravity Separator Gas	.623	XXXXXXXXXX
3.	.80	542	1.50	.920	Specific Gravity Flowing Fluid	N/A	XXXXXX
4.	.80	542	1.50	.920	Critical Pressure	674	PSIA
5.					Critical Temperature	361	R

P _r 3267.1	P _w 10673.9						
NO.	P _r ²	P _w ²	P _r ² - P _w ²				
1.	3184.4	10140.4	533.5				
2.	3101.2	9617.4	756.5				
3.	2973.6	8842.2	1831.7				
4.	2886.3	8330.7	2343.2				
5.							

$$1) \frac{P_r^2}{P_r^2 - P_w^2} = 4.55 \quad (2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^2 = 4.17$$

$$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^2 = 9878.7$$

Absolute Open Flow	9878.7	Mscf @ 15.025	Angle of Slope θ	46.62	Slope, n	.944
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Remarks: * CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES
* NO LIQUID MADE DURING TEST

Approved By Division	Conducted By: PRO WELL TESTING	Calculated By: M. B.	Checked By: B. M.
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