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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources

Form C-122
Revised October, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Operator: Matador Operating Co.					Lease or Unit Name: Brantley Fed.				
Type Test: ☒ Initial ☐ Annual ☐ Special					Test Date: 1-17-01				
Completion Date: 12-23-00		Total Depth: 10382'		Plug Back TD: 10372'		Elevation: 3226' gl		Unit Ltr. - Sec. - TWP - Rge. C 34 20 26	
Csg. Size: 9 5/8" Wt. 36#		Set At: 10382'		Perforations: From: 10,264' To: 10,308'		County: Eddy, NM			
Thg. Size: 2 7/8 Wt. 6.5		Set At: 9967'		Perforations: From: N/A To: N/A		Pool Springs Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single					Packer Set At: 9967'		Formation: Morrow		
Producing Thru Tbg.		Reservoir Temp. °F:		Mean Annual Temp. °F:		Baro. Press. - P _a :		Connection:	
L: 9.967'		H: 9.967'		Gg: .597		%CO ₂ : .837		%N ₂ : .248	
						%H ₂ S:		Prover:	
								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	
SI						3123		PKR		48 Hrs
1.	4"	x	1.500	573	32.00	86	3023			60 Min
2.	4"	x	1.500	545	74.42	83	3012			75 Min
3.	4"	x	1.500	564	117.96	86	2881			75 Min
4.	4"	x	1.500	560	172.98	77	2743			150 Min
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 _{sp}	Rate of Flow Q, Mcfd
1.	10.84	136.96	586.2	.9759	1.294	1.043	1.956
2.	10.84	203.82	558.2	.9786	1.294	1.041	2.913
3.	10.84	260.93	577.2	.9759	1.294	1.040	3.715
4.	10.84	314.88	573.2	.9840	1.294	1.044	4.537
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcft/bbl.
1.	.87	546	1.54	.920	A. P. I. Gravity of Liquid Hydrocarbons Dry _____ Deg.		
2.	.83	543	1.53	.923	Specific Gravity Separator Gas .597 XXXXXXXXXX		
3.	.85	546	1.54	.924	Specific Gravity Flowing Fluid XXXXX G _{mix} =...N/A		
4.	.85	537	1.51	.917	Critical Pressure 672 P.S.I.A. _____ P.S.I.A.		
5.					Critical Temperature 354 R. _____ R		

P _c 1193.2		P _{c2} 1423.7	
No.	P _i ²	P _w	P _w ²
1.	N/A	3042.7	9258.1
2.	N/A	3039.7	9239.7
3.	N/A	2918.6	8515.0
4.	N/A	2793.9	7806.0
5.			

(1) P _{c2} = 4.846		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.881$	
AOF = Q		$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 13.071$	

Absolute Open Flow 13.071 Mcfd@ 15.025		Angle of Slope θ: 56.1	
Slope, n: .670			

Remarks: No fluid produced

Approved By Division	Conducted By: Pacific Process Systems, Inc. 505-392-8813	Calculated By: Bob Murray, Independent Consultant 505-395-2349	Checked By: Bob Murray, Independent Consultant 505-395-2349
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