Submit in duplicate to appropriate district office. See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: POGO PRODUCING CO.							Lease or Unit Name: SAM FEDERAL				
Type Test: ☒ Initial ☐ Annual ☐ Special							Test Date: 3/28/02			Well No.: 2	
Completion Date		Total Depth		Plug Back TD			Elevation			Unit Ltr. - Sec. - TWP – Rge.	
Csg. Size: 5.0	Wt.	d	Set At	Perforations: From: 12632		To: 13200				County: EDDY	
Thg. Size: 2.375	Wt.: 4.60	d: 1.995	Set At: 11850	Perforations: From:		To:				Pool	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: SINGLE				Packer Set At: 11850						Formation: MORROW	
Producing Thru: TUBING	Reservoir Temp. °F: 217		Mean Annual Temp. °F: 60	Baro. Press - P_a: 13.2						Connection	
L: 12916	H: 12916	Gg: 0.646	%CO_2: 8.46	%N_2: 0.77	%H_2S		Prover			Meter Run: 3.068	Taps: FLANGE

	FLOW DATA					TUBING DATA		CASING DATA		
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
SI										192
1.	3.068	1.50	3.3	7.1	48	2496	72			1
2.	3.068	1.50	3.3	6.4	68	1626	72			1
3.	3.068	1.50	3.3	5.7	88	1120	76			1
4.	3.068	1.50	3.3	5.1	98	790	76			1
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 Compress. Factor, F pv	Rate of Flow Q, Mcfd
1.	11.13	10.82	16.5	1.0117	1.2442	1.0061	153.6
2.	11.13	10.28	16.5	0.9924	1.2442	1.0054	142.8
3.	11.13	9.70	16.5	0.9741	1.2442	1.0047	132.1
4.	11.13	9.17	16.5	0.9653	1.2442	1.0044	123.8
5.							

No.	P_t	Temp. °R	T_t	Z
1.	0.02	508	1.43	0.988
2.	0.02	528	1.48	0.989
3.	0.02	548	1.54	0.991
4.	0.02	558	1.57	0.991
5.				

Gas Liquid Hydrocarbon Ratio N/A Mcf/bbl.
A. P. I. Gravity of Liquid Hydrocarbons N/A Deg.
Specific Gravity Separator Gas 0.646 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.646
Critical Pressure 706 P.S.I.A. 706 P.S.I.A.
Critical Temperature 356 R 356 R

P_c 3722.3 P_c^2 13855

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		2433	5921	7935
2.		1621	2628	11227
3.		1127	1271	12584
4.		803	646	13210
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7462$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3214$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 203$

Absolute Open Flow 203 Mcfd@ 15.025 | Angle of Slope θ: 63.4 | Slope, n: 0.50

Remarks: Bottomhole pressures were recorded at the midpoint of the perforations using electronic gauge #V-81.

Approved By Division	Conducted By:	Calculated By:	Checked By:
		Rod Dodson	