

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12/31/85		RECEIVED BY JAN 17 1986 O. C. D. ARTESIA, OFFICE	
Company Pogo Producing Co. ✓		Connection None			
Pool West Sand Run Mpr.		Formation Morrow			
Completion Date 12/22/85		Total Depth 14,950	Plug Back TD 14,277	Elevation 3,350	Farm or Lease Name Pure Gold D Federal
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 14,950	Perforations: From 14,122 To 14,208	Well No. 1
Tub. Size 2 3/8	Wt. 4.7	d 1.995	Set At 14,000	Perforations: From Open To End	Unit Sec. Twp. Rye. E 28 23S 31E
Type Well - Single - Drillinghead - G.C. or G.O. Multiple Single				Perfor Set At 14,000	County Eddy
Producing Thru TBG		Reservoir Temp. °F 216 #14,165	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2	State New Mexico
L 14,165	H 14,165	G _g .6104	% CO ₂ 4.184	% N ₂ .792	% H ₂ S Prover
					Meter Run 4.026
					Taps 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
SI							3870	64	1700		72 hr.
1.	4.026	X	.625	300	4	76	3577	64	1700		1 hr.
2.	4.026	X	.625	300	8	80	3340	62	1700		1 hr.
3.	4.026	X	.625	300	12	82	3110	62	1700		1 hr.
4.	4.026	X	.625	300	29	82	2752	62	1680		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 _{sp}	Rate of Flow Q, Mcfd
1	1.845	35.39	313.2	.9850	1.280	1.024	84
2	1.845	50.06	313.2	.9813	1.280	1.023	119
3	1.845	61.31	313.2	.9795	1.280	1.023	145
4	1.845	95.30	313.2	.9795	1.280	1.023	226
5							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.	
					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
1	.46	536	1.51	.954	Specific Gravity Separator Gas _____ .610	XXXXXXXXXXXX
2	.46	540	1.52	.955	Specific Gravity Flowing Fluid _____ XXXXX	
3	.46	542	1.53	.956	Critical Pressure _____ 688 _____ P.S.I.A.	_____ P.S.I.A.
4	.46	542	1.53	.956	Critical Temperature _____ 355 _____ R	_____ R
5						

P _i 5257.2	P _s 27638.2					
NO.	P _i ²	P _f	P _s ²	P _f ² - P _s ²	(1) $\frac{P_c^2}{P_c^2 - P_s^2} = 2.812$	(2) $\left[\frac{P_c^2}{P_c^2 - P_s^2} \right]^n = 2.077$
1	4799.2	23032.3	4605.9			
2	4504.2	20287.8	7350.4			
3	4220.2	17810.1	9828.1			
4	3721.2	13847.3	13790.9			
5						

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_s^2} \right]^n = .301$$

Post ID-2
 1-24-86
 Comp + BIK

Absolute Open Flow 301 Mcfd @ 15.025 Angle of Slope 54.75 Slope, n .707

Remarks: Calculated from known bottom hole pressures

Approved By Division	Conducted By: Duke Services, Inc.	Calculated By: R. Reston	Checked By:
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