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appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

AUG 14 1992

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

O. C. D.
OFFICEclsf
up

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SANTA FE ENERGY					Lease or Unit Name PURE GOLD - 4				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-29-92		Well No. 1		
Completion Date 6-24-92		Total Depth 14100		Plug Back TD 14050		Elevation		Unit Ltr. - Sec. - TWP - Rge. C 9 23 31	
Csg. Size 4 1/2	Wt. d	d 14100	Set At 14100	Perforations: From: 13718 To: 13748			County Eddy		
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 13610	Perforations: From: To:			Pool Wildcat Alaska		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 13610			Formation ATOKA		
Producing Thru TBG		Reservoir Temp. °F 211 @ 13733		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection	
1. *13733	H 13733	Gg .592	% CO ₂ .89	% N ₂ .83	% H ₂ S	Prover	Meter Run 3.068	Taps FLG	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	Orifice X 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						2940		PKR.		72 hr.
1.	3 X	1.500	760	3.00	90	2840		"		1 hr.
2.	3 X	1.500	740	11.00	60	2620		"		1 hr.
3.	3 X	1.500	760	21.00	64	2200		"		1 hr.
4.	3 X	1.500	760	32.00	64	1980		"		1 hr.
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 _{pv}	Rate of Flow Q, Mcfd
1.	11.13	48.16	773.2	.9723	1.300	1.061	719
2.	11.13	91.02	753.2	1.000	1.300	1.068	1,407
3.	11.13	127.43	773.2	.9962	1.300	1.070	1,965
4.	11.13	157.30	773.2	.9962	1.300	1.070	2,426
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcfd/bbl.
1.	1.15	550	1.55	.889	A.P.I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	1.12	520	1.46	.877	Specific Gravity Separator Gas	.592	XXXXXXXXXX
3.	1.15	524	1.48	.874	Specific Gravity Flowing Fluid	XXXXXX	
4.	1.15	524	1.48	.874	Critical Pressure	672	P.S.I.A. P.S.I.A.
5.					Critical Temperature	354	R R

P_c 2956.5 P_w 8740.9

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1.		2867.7	8223.7	517.2
2.		2741.2	7514.2	1226.7
3.		2581.8	6665.7	2075.2
4.		2382.9	5678.2	3062.7
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.212$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.871$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.642$

Absolute Open Flow	5,642	Mcfd @ 15.025	Angle of Slope θ	54	Slope, n	.7335
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Remarks: **Well Made 1.30 BBLs H₂O During Test**

*= BHP Instrumnet set @ this Depth.

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: BM	Checked By: BM
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