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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Operator OXY USA INC.				Lease or Unit Name PRONGHORN STATE			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-DEC-1997			
Completion Date		Total Depth		Plug Back TD		Well No. 1	
Csg. Size 4.5		Wt. d 11.6		Set At		County EDDY	
Tbg. Size 2 3/8		Wt. d 4.6		Set At		Pool Sand Point Morrow	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 12,343.9'		Formation	
Producing thru TUBING		Reservoir Temp. °F 203@12416		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2	
L 12416		H 12416		Gg 0.597		% CO ₂ 1.15	
				% N ₂ 0.20		% H ₂ S 0	
				Prover		Meter Run 3.0	
						Taps FLANGE	

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.	
SI						3450	60	4579*	75.0
1.	3 X	1.625	417	1.8	61	3418	60	4521*	1.0
2.	3 X	1.625	450	4.7	73	3385	60	4506*	1.0
3.	3 X	1.625	468	7.8	77	3343	60	4489*	1.0
4.	3 X	1.625	473	58.0	50	3063	60	4200*	1.0
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.		27.83	430.2	0.9988	1.2942	1.0362	510
2.		46.63	462.7	0.9877	1.2942	1.0359	836
3.		61.28	481.5	0.9845	1.2942	1.0364	1093
4.		167.89	486.0	1.0097	1.2942	1.0446	3088
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.54	521	1.47	0.931	A.P.I. Gravity of Liquid Hydrocarbons	0
2.	0.58	533	1.50	0.932	Specific Gravity Separator Gas	0.597
3.	0.71	537	1.51	0.931	Specific Gravity Flowing Fluid	XXXXXX
4.	0.72	510	1.44	0.916	Critical Pressure	677 P.S.I.A.
5.					Critical Temperature	355 R

P _c 3531.5	P _c ² 12471			
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	20557	3483	1213	339
2.	20421	3471	12046	426
3.	20272	3457	11951	521
4.	17753	3219	10363	2108
5.				

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 5.9155 \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.2932$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 13,256$$

Absolute Open Flow **13,256** Mcfd @ 15.025 Angle of Slope θ **50.7** Slope, n **0.82**

Remarks: **CALCULATED FROM BHP DATA**

*USED FOR CALCULATIONS

Approved By Division **Conducted By: Charles Taylor** Calculated By: **Reed** Checked By: