

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator OXY USA, INC.				Lease or Unit Name VILLA COM "A"			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-NOV-97		Well No. #1	
Completion Date		Total Depth 12,670		Plug Back TD		Elevation	
Csg. Size 5.5"		Wt. d		Set At		Perforations: From: 12,038' To: 12,417'	
Tbg. Size		Wt. d		Set At		Perforations: From: To:	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At		Formation	
Producing Thru TUBING 202012,227				Reservoir Temp. °F 60		Mean Annual Temp. °F 60	
Baro. Press - P _a 13.2				Connection		County EDDY	
L 12,227		H 12,227		G _g 0.576		% CO ₂ 0.62	
				% N ₂ 1.05		% H ₂ S 0	
Prover ARTERIA				Meter Run 4.0		Taps FLANGE	

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											
1.	4.03	X	2.000	292	0.8	49			5722	202	138.1
2.	4.03	X	2.000	293	2.2	73			5715	202	1
3.	4.03	X	2.000	294	9.2	72			5708	202	1
4.	4.03	X	2.000	301		72			5690	202	1
5.					52.7	52			5528	202	1

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.		15.61	304.7	1.0106	1.3175	1.0256	460
2.		25.93	305.7	0.9880	1.3175	1.0217	572
3.		53.16	307.2	0.9888	1.3175	1.0219	1387
4.		128.66	314.1	1.0078	1.3175	1.0259	3391

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.45	509	1.47	0.951	A.P.L. Gravity of Liquid Hydrocarbons	0
2.	0.45	533	1.53	0.958	Specific Gravity Separator Gas	0.575
3.	0.46	532	1.53	0.958	Specific Gravity Flowing Fluid	XXXXXX
4.	0.47	512	1.48	0.950	Critical Pressure	575
5.					Critical Temperature	347

P_c	<u>4573.3</u>	P_c^2	<u>20915</u>	
NO.	P_c^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.	32.817	4568	20,864	51
2.	32.728	4561	20,801	114
3.	32.531	4545	20,664	251
4.	31.823	4491	20,170	745
5.				

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = \underline{28.0850}$$

$$AOF = Q \quad \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{52192}$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{15.3917}$$

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Absolute Open Flow **52,192** Mcfd @ 15.025 Angle of Slope θ **50.7** Slope, n **0.82**

Remarks: **CALCULATED FROM BOTTOM HOLE PRESSURE.**

Approved By Division **C. Taylor by JMS** Conducted By **R. J. Hammer** Checked By: