

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-2-71		MAR 5 1971	
Company Morris R. Antweil ✓				Connection Pending		O.C.C.	
Pool South Carlsbad				Formation Strawn		Unit ARTESIA, OFFICE	
Completion Date 2-2-71		Total Depth 10,708		Plug Back TD 10630		Elevation 3200 G.L.	
Csg. Size 5.5		Wt. 17		Set At 10707		Perforations: From 10291 To 10435	
Thg. Size 2-3/8		Wt. 4.70		Set At 10442		Perforations: From None To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 173 @ 10363		Mean Annual Temp. °F		Baro. Press. - P _a 13.2	
L 10442		H 10442		G _g .660		% CO ₂ .35	
				% N ₂ .65		% H ₂ S Nil.	
				Prover		Meter Run X	
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4038	60	4064	60	S.I. 72hr.
1.	3.068	1.500		822	7	85	3825	72	3919	64	1
2.	3.068	1.500		814	29	62	3575	72	3701	68	1
3.	3.068	1.500		848	43	54	3364	72	3499	70	1
4.	3.068	1.500		888	67	48	3105	72	3272	70	1
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 _{pv}	Rate of Flow Q, Mcfd
1.	11.13	76.462 ✓	835.2	.9768	1.231	1.088	1,113
2.	11.13	154,883	827.2	.9981	1.231	1.098	2,326
3.	11.13	192,436	861.2	1.006	1.231	1.102	2,923
4.	11.13	245,724 ✓	901.2	1.012	1.231	1.132	3,857
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.25	545	1.44 ✓	.845	26.5	59.2	.660	XXXXXX	670	378
2.	1.23	522	1.38	.829				XXXXXX		
3.	1.29	514	1.36	.823						
4.	1.35	508	1.34	.781						
5.										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.		3932.2	15462.2	1161.4
2.		3714.2	13795.2	2828.4
3.		3512.2	12335.5	4288.1
4.		3285.2	10792.5	5831.1
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.851$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8445$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.189$

Absolute Open Flow	8445	Mcfd @ 15.025	Angle of Slope	768
Remarks:				

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Noted RLS 3-8-71	Bill Kerley	Bill Kerley	Bill Kerley