

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

RECEIVED
Form CO-2
Revised 9-1-65

MAY 18 1971

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-4, 5-71		O. C. C. ARTESIA, OFFICE	
Company SHENANDOAH OIL CORPORATION				Connection NONE			
Pool HAYSTACK				Formation CISCO GAS		Unit 320	
Completion Date 4-17-71		Total Depth 6224'		Plug Back TD 6124'		Elevation 3927.8	
Csg. Size 2 7/8		Wt. 6.5		d 2.441		Set At 6125'	
Thg. Size -		Wt. -		d -		Set At -	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru CSG.		Reservoir Temp. °F 116° @ 5600'		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2	
L 5600'		H -		G _g 0.623		% CO ₂ 0.10	
				% N ₂ 3.79		% H ₂ S 0.00	
				Prover X		Meter Run F	
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.
SI							
1.	3	15/64	1"	360	12	79	750
2.	3	13/64	1"	360	8	70	810
3.	3	11/64	1"	360	6	60	910
4.	3	9/64	1"	360	3	40	1450
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	4.789	66.92	373.2	0.9822	1.267	1.028	410.0
2	4.789	54.63	373.2	0.9905	1.267	1.030	338.2
3	4.789	47.31	373.2	1.0000	1.267	1.033	296.5
4	4.789	33.46	373.2	1.0200	1.267	1.036	214.5
5.							
NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
1	0.56	539	1.53	0.947	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	0.56	530	1.50	0.943	Specific Gravity Separator Gas 0.623 XXXXXXXXXX		
3	0.56	520	1.47	0.939	Specific Gravity Flowing Fluid XXXXXX		
4	0.56	500	1.42	0.932	Critical Pressure 668 P.S.I.A.		
5.					Critical Temperature 353 R		
$P_c = 1993.2$ $P_c^2 = 3972.8$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.474$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.404$		
NO.	P _t	P _w *	P _w ^2	P _c ^2 - P _w ^2	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 576$		
1	-	1130.2	1277.4	2695.4			
2	-	1366.2	1866.5	2106.3			
3	-	1470.2	2161.5	1811.3			
4	-	1640.2	2690.3	1282.5			
5							
Absolute Open Flow 580 Mcfd @ 15.025				Angle of Slope 48° 45'		Slope, n 0.871	
Remarks: * BHP @ (-1672') 5600' USED FOR PRESSURE CALCULATIONS							
Approved By Commission:		Conducted By: COLEMAN PET.ENG.		Calculated By: JOE A. COLEMAN		Checked By: JOE A. COLEMAN	