

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

SF file
 Form C-122
 Revised 9-1-65
 7-123 file
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7-14-80		Date 10 1980	
Company Yates Petroleum Corp. ✓		Connection Transwestern Pipeline Company		O. C. D.	
Pool Wildcat Abo		Formation Abo		Unit ARTESIA, OFFICE NM 11592	
Completion Date 3-6-80		Total Depth 5200'		Plug Back TD 4508' KB	
				Elevation 3919' KB	
Csg. Size 5-1/2" Wt. 14#		Set At 5.012 4550'		Perforations: From 3770' To 3780'	
Thq. Size 2-7/8" Wt. 6.5#		Set At 2.441 3742'		Perforations: From To	
Type Well - Single - Broadhead - G.G. or G.O. Multiple		Packer Set At 3742' KB		Well No. #1	
Producing Thru Tubing		Reservoir Temp. °F 96 @ 3775		Mean Annual Temp. °F 62	
				Baro. Press. - P _a 13.2	
L 3770 H 3770		G _g 0.649		% CO ₂ 0.55	
				% N ₂ 5.03	
				% H ₂ S Nil	
				Prover ---	
				Meter Run 2" Taps Flanged	

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							1005	99			Months
1.	2.067	x	0.750	640	12	75	966	86			1 hr
2.	"			641	24	75	943	87			1 hr
3.	"			642	50	75	917	88			1 hr
4.	"			643	89	75	856	89			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	2.709	88.53	653.2	.9859	1.241	1.0634	312
2	2.709	125.30	654.2	.9859	1.241	1.0633	442
3	2.709	181.00	655.2	.9859	1.241	1.0631	638
4	2.709	241.66	656.2	.9859	1.241	1.0630	851
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.	0.975	535	1.427	.8843	---	---	.649	XXXXXX	670	375
2.	0.976	535	1.427	.8845				XXXXX		
3.	0.978	535	1.427	.8848						
4.	0.979	535	1.427	.8850						
5.										

$P_c = 1129.2 P_c^2 = 1275$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.6325$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.7802$	
NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²			
1			1175	100			
2			1119	156			
3			1059	216			
4			924	351			
5							

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2366$		Absolute Open Flow 2366 Mcfd @ 15.025		Angle of Slope @ 51.6 deg.		Slope, n 0.7927	
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Remarks: Static pressures by Bennett Wireline flowing pressures by DWT.
 Calculations worksheet C122-D attached.

Approved By Commission:	Conducted By: Bob Gary	Calculated By: Eddie Mahfood	Checked By:
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