

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

5F/file
Form C-122
Revised 9-1-65
C-122
RECEIVED file

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-5-81		NOV 09 1981	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		O. C. D.	
Pool Undesignated Abo				Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 6-9-81		Total Depth 4900' KB		Plug Back To 4840' KB		Elevation 3817' KB	
Casing Size 4-1/2"		Wt. 9.5#		Set At 4859'		Perforations: From 4539' KB To 4749' KB	
Tubing Size 2-3/8"		Wt. 4.7#		Set At 4690'		Perforations: From To	
Type Well - Single - Dradhead - G.G. or G.C. Multiple Single				Packer Set At -		County Chaves	
Producing Thru tubing		Reservoir Temp. °F 120 @ 4540'		Mean Annual Temp. °F 62°		Baro. Press. - P _g 13.2	
L 4690		H 4690		C _g .639		% CO ₂ 0.22	
				% N ₂ 3.97		% H ₂ S 0	
				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. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51							869				72 hrs
1.	2.067 x 0.625			390	58	78	680	70			24 hrs
2.	2.067 x 0.625			520	60	66	660	70			24 hrs
3.	2.067 x 0.625			480	87	70	605	70			24 hrs
4.	2.067 x 0.625			480	97	68	550	70			24 hrs
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	1.866	152.92	403.2	.9831	1.251	1.032	361
2	1.866	178.86	533.2	.9943	1.251	1.046	433
3	1.866	201.10	493.2	.9905	1.251	1.036	483
4	1.866	218.72	493.2	.9924	1.251	1.034	523
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.61	538	1.51	0.939	963	
2	0.80	526	1.47	0.914	A.P.I. Gravity of Liquid Hydrocarbons 67.8	
3	0.74	547	1.53	0.931	Specific Gravity Separator Gas .639	XXXXXXXXXX
4	0.74	557	1.56	0.936	Specific Gravity Flowing Fluid XXXXX	.642
5					Critical Pressure 663	663 P.S.I.A.
					Critical Temperature 357	361 R

P _c 882.2 P _c ² 778.3			
NO	P _r ²	P _w	P _r ² - P _w ²
1	480.5		482.7
2	453.2		456.4
3	382.2		386.2
4	317.2		321.9
5			

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.705$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.389$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 726$ mcfpd

Absolute Open Flow 726		Mcf/d @ 15.025	Angle of Slope @	Slope, n .615
Remarks:				

Approved By Commission:	Conducted By: David Weaver	Calculated By: Al Springer	Checked By:
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