

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

Form C-122
Revised 9-1-61

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-20-81		APR 13 1981	
Company Yates Petroleum Corporation /				Connection Transwestern Pipeline Co.				O. C. D. ARTESIA, OFFICE	
Pool Wildcat Premier				Formation Premier				Unit	
Completion Date 11-1-80		Total Depth 8857 KB		Plug Back TD 1652 KB		Elevation 3536 KB		Farm or Lease Name Nine Mile OB State	
Case Size 8 5/8"	Wt. 24#	d 8.097	Set At 1698KB	Perforations: From 1643 To 1649 KB		Well No. 1			
Thq. Size 2 7/8"	Wt. 6.5#	d 2.441	Set At 1612KB	Perforations: From 1622 To 1625		Unit Sec. Twp. Rge. F 32 14s 28e			
Type Well - Single - Packerhead - G.C. or G.O. Multiple Single						Packer Set At 1612 KB		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 96 @ 1646		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State N. Mex.	
L 1640	H 1640	G _g 0.727	% CO ₂ 0.06	% N ₂ 19.66	% 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. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1250	54			Weeks
1.	2.067	X	0.750	740	13	60	1186	63			12
2.	2.067	X	0.750	746	23	60	1135	67			24
3.	2.067	X	0.750	757	42	57	986	70			24
4.	2.067	X	0.750	762	59	53	788	72			24
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	98.95	753.2	1.000	1.168	1.097	343
2	2.709	132.14	759.2	1.000	1.168	1.097	459
3	2.709	179.86	770.2	1.003	1.168	1.101	627
4	2.709	213.86	775.2	1.007	1.168	1.102	751
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.921	520	1.259	.8317	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2	0.928	520	1.259	.8310	Specific Gravity Separator Gas	0.733
3	0.942	517	1.252	.8250	Specific Gravity Flowing Fluid	XXXXXX
4	0.948	513	1.242	.8227	Critical Pressure	632 P.S.I.A.
5					Critical Temperature	344.5 R

P _r 1304.2	P _w 1701	(1) $\frac{P_c^2}{P_w^2 - P_c^2} = 1.7147$	(2) $\left[\frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 1.3097$
NO.	P _w	P _r	P _r ² - P _w ²
1			1604
2			1467
3			1107
4			709
5			

Absolute Open Flow		984	Mcf @ 15.025	Angle of Slope @	63.4 deg.	Slope, n	0.5003
--------------------	--	-----	--------------	------------------	-----------	----------	--------

Remarks: Extrapolated BHP from pressure build up by Bennett Wireline. All surface pressures by dead weight tester. Calculation worksheet Cl22D attached.

Approved By Commission:	Conducted By: David Weaver	Calculated By: Eddie Mahfood	Checked By:
-------------------------	-------------------------------	---------------------------------	-------------