

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

Form C-122
Revised 9-2-66

FEB 4 1975

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-21-75			
Company Yates Petroleum Corp.				Connection None		B.C.C. ARTESIA, OFFICE	
Pool Richards-Knob				Formation Cisco		Unit 320	
Completion Date 3-4-74		Total Depth 8671		Plug Back TD 8503		Elevation 3612KB	
Farm or Lease Name Federal C Z				Well No. 1			
Csg. Size 1 1/2	Wt. 10.5	d 4.052	Set At 8535	Perforations: From 6554 To 6576			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 8245	Perforations: CO @ 6500'		Unit B	Sec. Twp. Rge. 8 18 25
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual GG				Packer Set At CO @ 6500'		County Eddy	
Producing Thru T		Reservoir Temp. °F 124 @ 6450		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 6.565	H -	G _g 0.641	% CO ₂ 1.28	% N ₂ 0.74	% H ₂ S 0.00	Prover -	Meter Run 3
						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							1949.0		Packer	Choke	
1.	3"	x	1.25"	98.0	8.0	79	1855.0	65		10/64"	75 Min
2.	3"	x	1.25"	96.0	20.0	82	1787.0	66		11/64"	75 Min
3.	3"	x	1.25"	135.0	41.0	69	1703.0	64		14/64"	60 Min
4.	3"	x	1.25"	190.0	72.0	63	1540.0	60		17.5/64"	75 Min
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.	7.577	29.83	111.2	.9822	1.249	1.009	279.8
2.	7.577	46.73	109.2	.9795	1.249	1.008	436.6
3.	7.577	77.95	148.2	.9915	1.249	1.013	740.9
4.	7.577	120.96	203.2	.9971	1.249	1.019	1163.0
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.16	539	1.45	.983	1701	
2.	0.16	542	1.46	.984	55.8	
3.	0.22	529	1.43	.974		
4.	0.30	523	1.41	.963		
5.						

NO.	P _t	P _w *	P _w ²	P _t ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.0105$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.0105$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3501$
1.		2297	5277.1	359.7	
2.		2225	4951.5	685.3	
3.		2099	4406.6	1230.2	
4.		1940	3764.4	1872.4	
5.					

Absolute Open Flow	3501	Mcf/d @ 15.025'	Angle of Slope @ 45°	Slope, n 1.000 limit
Remarks: * Bottom hole pressures measured (-2953) 6565'				
Slope in excess of 1.000 limit				
Approved By Commission:	Conducted By: Coleman Petr. Engr.	Calculated By: R. West	Checked By: Joe A. Coleman	