

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-27-73		AUG 21 1973	
Company Yates Petroleum Corp.					Connection			
Pool Wildcat					Formation Morrow		Unit B.E.C. ARTESIA, OFFICE	
Completion Date 7-11-73		Total Depth 8140'		Plug Back TD 8107'		Elevation 3366' KB		Farm or Lease Name State CK
Csg. Size 5 1/2"	Wt. 15.5	d 4.950	Set At 8139'	Perforations: From 7963' To 7973'		Well No. No. 1		
Tubg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 7928'	Perforations: From Open To Ended		Unit Sec. Twp. Rge. C 4 17s 26e		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 7928'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 133 @ 7950'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 7928'	H -	G _g 0.630	% CO ₂ 0.28	% N ₂ 0.43	% H ₂ S 0.00	Prover	Meter Run X	Taps F

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							2578			PACKER	144.0 Hrs
1.	4	13/64	1.50	930	91	86	2406	85			1.5
2.	4	11/64	1.50	930	37	80	2463	82			1.0
3.	4	9/64	1.50	930	14	81	2508	79			1.0
4.	4	7/64	1.50	630	6	86	2534	78			1.0
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	10.84	292.95	943.2	0.9759	1.260	1.073	4190.1
2	10.84	188.82	943.2	0.9813	1.260	1.078	2699.2
3	10.84	114.92	943.2	0.9804	1.260	1.076	1655.7
4	10.84	62.11	643.2	0.9759	1.260	1.051	870.2
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 55.724 Mcf/bbl.	
1	1.40	546	1.50	0.868	A.P.I. Gravity of Liquid Hydrocarbons 57.2 Deg.	
2	1.40	540	1.48	0.861	Specific Gravity Separator Gas 0.630 XXXXXXXXXX	
3	1.40	541	1.49	0.864	Specific Gravity Flowing Fluid XXXXXX	
4	0.95	546	1.50	0.905	Critical Pressure 673 P.S.I.A. - P.S.I.A.	
5.					Critical Temperature 364 °R - °R	

P _c 3262.2 P _w 1064.9				
NO.	P _r ²	P _w *	P _w ²	P _c ² - P _w ²
1	-	3014.2	8085.4	1556.5
2	-	3112.2	9685.8	956.1
3	-	3174.2	10075.5	566.4
4	-	3221.2	10376.1	265.8
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 6.837$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 22856$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.455$$

posted 8-24-73

Absolute Open Flow 22856 Mcfd @ 15.025		Angle of Slope 48° 33'	Slope, n 0.883
Remarks: * FWP @ (-1602') 7968' used for pressure calculations			
Approved By Commission:		Conducted By: COLEMAN PET.ENG.CO.	Calculated By: JOE A. COLEMAN
		Checked By: <i>Joe A. Coleman</i>	JOE A. COLEMAN