

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 12-17-74		DEC 20 1974	
Company Yates Petroleum Corp.				Connection					
Pool Wildcat (High Hope)				Formation Abo				Unit ARTESIA, OFFICE	
Completion Date 11-30-74		Total Depth 7434		Plug Back TD 6000		Elevation 3981 KB		Farm or Lease Name High Hope "DJ" Fed.	
Csg. Size 5 1/2"	Wt. 15.5	d 1.997	Set At 6010'	Perforations: From 4478 To 4529		Well No. 1			
Thg. Size 2-3/8"	Wt. 4.7	d 1.997	Set At 4436	Perforations: From To		Unit D 13		Twp. Rye. 17S 23E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At -		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 96		Mean Annual Temp. °F		Baro. Press. - P _a 13.2		State New Mexico	
L 4436	H 4504	G _g 0.629	% CO ₂ 1.06	% N ₂ 1.59	% H ₂ S -	Prover X	Meter Run	Taps	

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.	
SI							1194	56		
1.	2 x 3/4		3			61	1121	66		
2.			13			60	1060	63		
3.			29			55	936	59		
4.			56			51	596	54		
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	9.453		16.2	0.990	1.261	1.001	191
2.			26.2	1.000		1.002	313
3.			42.2	1.005		1.003	507
4.			69.2	1.009		1.007	838
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcfd/bbl.
1	.02	521	1.44	.9977	Dry gas	
2.	.04	520	1.44	.9954	A.P.I. Gravity of Liquid Hydrocarbons	
3.	.06	515	1.42	.9950	Specific Gravity Separator Gas	.629
4.	.10	511	1.41	.9870	Specific Gravity Flowing Fluid	XXXXXX
5.					Critical Pressure	672 P.S.I.A.
					Critical Temperature	362 °R

P _c 1358.3		P _c ² 1844.9		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.630$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$	
NO.	P _w	P _w ²	P _c ² - P _w ²				
1	1286.4	1627.9	217.0				
2	1151.8	1454.2	390.7				
3	901.0	1143.4	701.5				
4	371.1	477.5	1367.4				
5							

Absolute Open Flow		1120 Mcfd @ 15.025		Angle of Slope		Slope, n .8185	
Remarks:							
Approved By Commission:		Conducted By: Don Weaver		Calculated By: Eddie Mahfood		Checked By:	

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DEC 19 1974
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO