

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

Form G-122
Revised 9-1-65

C/SF

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-22-80		JUN 19 1980	
Company Yates Petroleum Corp. ✓				Connection Phillips Petroleum Corp.				O. C. D. ARTESIA OFFICE	
Pool <u>Springer Basin</u> Undesignated Morrow				Formation Morrow				Unit	
Completion Date 3-1-79		Total Depth 8380 KB		Plug Back TD 8120 KB		Elevation 3520 KB		Farm or Lease Name Phillips KH Fed.	
Csg. Size 4-1/2	Wt. 11.6#	d 4.000"	Set At 8376 KB	Perforations: From 8050 To 8058 KB		Well No. 1			
Thg. Size 2-3/8	Wt. 4.7#	d 1.995"	Set At 7991 KB	Perforations: From To		Unit H	Sec. 23	Twp. 14S	Rge. 27E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 7991 KB		County Chaves			
Producing Thru Tubing		Reservoir Temp. °F 138 @ 8054		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 8044	H 8044	G _g 0.691	% CO ₂ 1.81	% N ₂ 0.69	% H ₂ S N.7	Prover -	Meter Run 4"	Taps Flange	

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							2238	85			Days
1.	4.026 x 1.000			208	9	78	2007	87			1 hr
2.	4.026 x 1.000			209	16	78	1895	88			1 hr
3.	4.026 x 1.000			210	31	78	1775	89			1 hr
4.	4.026 x 1.000			211	50	78	1623	90			1 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.753	44.62	221.2	.9831	1.203	1.020	256
2	4.753	59.63	222.2	.9831	1.203	1.020	342
3	4.753	83.18	223.2	.9831	1.203	1.020	477
4	4.753	105.88	224.2	.9831	1.203	1.020	607
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.327	538	1.444	.9613	80.19	
2.	0.328	538	1.444	.9612		
3.	0.330	538	1.444	.9610		
4.	0.331	538	1.444	.9609		
5.						

A.P.I. Gravity of Liquid Hydrocarbons 63.0					Deg.	
Specific Gravity Separator Gas .0657					XXXXXXXXXX	
Specific Gravity Flowing Fluid XXXXX						
Critical Pressure 676.5					P.S.I.A. 675.5 P.S.I.A.	
Critical Temperature 372.5					R 383.5 R	

P _c 2842.2 P _c ² 8080				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8892$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.72965$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²			
1			6565	1515			
2			5850	2230			
3			5126	2954			
4			3803	4277			
5							

Absolute Open Flow 1050				Mcf/d @ 15.025		Angle of Slope @ 49.26 deg.		Slope, n 0.8613	
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Remarks: Static Pressures by Bennett Wireline, flowing pressures by DWT.			
Calculations worksheet C122D attached. Note: well slugging condensate			

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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