

C/SF
C-122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

FEB 19 1982

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date		O. C. D.							
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Co.		ARTESIA, OFFICE							
Pool Undesignated Abo		Formation Abo		Unit							
Completion Date 11/5/81		Total Depth 4300'		Plug Back TD 4088'							
Elevation 3827' GL		Farm or Lease Name Paulette PV State		Well No. 2							
Casing Size 4-1/2"		Wt. 9.5#		Set At 4295'							
Perforations: From 3776' To 3804'		Well No. 2		Unit Sec. Twp. Rge. E 16 5S 25E							
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At -		County Chaves							
Producing Thru Tubing		Reservoir Temp. °F 100° 3790'		Mean Annual Temp. °F 62°							
Basic Press. - P _g 13.2		State New Mexico		Prover -							
L 3790		H 3790		C _g .653							
% CO ₂ .16		% N ₂ 7.37		% H ₂ S 0							
Meter Run 4"		Flanged		Prover -							
FLOW DATA											
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	Duration of Flow
SI							1015				days
1.	4.026 x 1.375			260	80.0	60	760	62			24 hrs
2.	4.026 x 1.375			260	59.0	60	850	62			24 hrs
3.	4.026 x 1.375			245	42.3	58	891	62			24 hrs
4.	4.026 x 1.375			240	31.3	58	929	62			14 hrs
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 _{sp}	Rate of Flow Q, Mhd				
1	9.071	147.8	273.2	1.000	1.237	1.022	1695				
2	9.071	127.0	273.2	1.000	1.237	1.022	1456				
3	9.071	104.6	258.2	1.002	1.237	1.020	1199				
4	9.071	89.0	253.2	1.002	1.237	1.020	1021				
5											
NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio <u>dry</u> Mcl/bbl.						
1	.42	520	1.46	.958	A.P.I. Gravity of Liquid Hydrocarbons <u>-</u> Deg.						
2	.42	520	1.46	.958	Specific Gravity Separator Gas <u>.653</u> X X X X X X X X						
3	.39	518	1.46	.962	Specific Gravity Flowing Fluid <u>X X X X X</u> .653						
4	.39	518	1.46	.962	Critical Pressure <u>658</u> P.S.I.A. 658 P.S.I.A.						
5					Critical Temperature <u>355</u> R 355 R						
P _c 1028.2 P _c ² 1057.2											
NO.	P _i	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.5118$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5903$						
1	597.8		636.3	420.9	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2696$						
2	745.1		773.2	284.0							
3	817.6		836.5	220.7							
4	887.7		901.4	155.8							
5											
Absolute Open Flow <u>2696</u> Mhd @ 15.025 Angle of Slope <u>50.4</u> Slope, n <u>.504</u>											
Remarks:											
Approved By Division Conducted By: David Weaver Calculated By: Al Springer Checked By:											