

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

215
File
Form C-122
Revised 9-1-65
122 File

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-28-77		MAR 28 1977							
Company Yates Petroleum Corp.		Connection Transwestern Pipeline Co.									
Pool Eagle Creek Permian Undesignated		Formation Cisco		Unit ARTESIA, OFFICE							
Completion Date 8-24-75		Total Depth 8455' KB		Flow Rate 6665' KB							
				Elevation 3518' KB							
Csg. Size 4 1/2"		Wt. 11.6		Set At 4.000							
Perforations: From 6618 To 6636' KB				Well No. 1							
Thg. Size 2-3/8"		Wt. 4.7		Set At 1.995							
Perforations: From To				Unit Sec. Twp. Rge. C 35- 17S- 25E							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At 6448' KB							
Producing Thru Tubing				State New Mexico							
Reservoir Temp. °F 128		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2							
L 6612		H 6612		Prover 2"							
G _g		% CO ₂ 0.10		% N ₂ 0.98							
		% H ₂ S Nil		Meter Run Flange							
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
1.	2.067	X	1.375	273	6	75	1797	61			1 hr.
2.				274	12	75	1778	61			1 hr.
3.				275	27	75	1744	61			1 hr.
4.				276	58	75	1675	62			1 hr.
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	10.20	41.439	286.2	.9859	1.224	1.0281	524				
2	10.20	58.706	287.2	.9859	1.224	1.0281	743				
3	10.20	88.212	288.2	.9859	1.224	1.0281	1116				
4	10.20	129.513	289.2	.9859	1.224	1.0281	1639				
5											
NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio 316.67 Mcf/bbl.						
1	.428	535	1.4116	.946	A.P.I. Gravity of Liquid Hydrocarbons 64.0 Deg.						
2	.429	535	1.4116	.946	Specific Gravity Separator Gas 0.667 XXXXXXXXXX						
3	.431	535	1.4116	.946	Specific Gravity Flowing Fluid XXXXX 0.676						
4	.432	535	1.4116	.946	Critical Pressure 669 P.S.I.A. 669 P.S.I.A.						
5					Critical Temperature 379 R 381 R						
P _c 2306.9 P _c ² 5322											
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.3541$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.94146$						
1			4918	404	ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8099$						
2			4828	494							
3			4660	662							
4			4328	994							
5											
Absolute Open Flow 8099 Mcfd @ 15.025					Angle of Slope @ 46 1/2 deg.			Slope, n 0.9522			
Remarks: Pressures by Dead Weight Tester. Calculation worksheet C-122D attached.											
Approved By Commission:			Conducted By: Don Weaver			Calculated By: Eddie Mahfood			Checked By:		