

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

File 122 (initial)
RECEIVED

AUG 7 1979

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-5-79		O.C.C. ARTESIA, OFFICE		
Company Yates Petroleum Corp.				Connection El Paso Natural Pipeline Co.				
Pool Permo Penn Penasco Draw Atoka				Formation Cisco, Canyon, Atoka		Unit NM 0487738		
Completion Date 2-12-79		Total Depth 8894' KB		Plug Back TD 8497' KB		Elevation 3574' KB		
Csg. Size 4 1/2		Wt. 10.5 d 4.052 Set At 8806'		Perforations: From 6528 To 8436		Well No. 5		
Thq. Size 2-3/8		Wt. 4.7 d 1.995 Set At 6489		Perforations: From To		Unit Sec. Twp. Rye. L 21-T18S-R25E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - downhole commingled				Packer Set At 6489' KB		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 126 @ 6921		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		
L 6921		H 6921		Gg 0.737		% CO ₂ 0.32		
				% N ₂ 1.90		% H ₂ S N.7		
				Prover		Meter Run 4"		
						Taps Flanged		
FLOW DATA								
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Duration of Flow	
SI							weeks	
1.	4.026 x 0.500			595	10	80	1 hr.	
2.				595	21	80	1 hr.	
3.				595	40	80	1 hr.	
4.				595	72	80	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, Fpv	Rate of Flow Q, Mcfd	
1	1.182	77.99	608.2	.9813	1.165	1.0715	113	
2.	1.182	113.01	608.2	.9813	1.165	1.0715	164	
3.	1.182	155.97	608.2	.9813	1.165	1.0715	226	
4.	1.182	209.26	608.2	.9813	1.165	1.0715	303	
5.								
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio ----- Mcf/bbl.			
					A.P.I. Gravity of Liquid Hydrocarbons ----- Deg.			
1.	0.913	540	1.357	.871	Specific Gravity Separator Gas 0.737		XXXXXXXXXX	
2.	0.913	540	1.357	.871	Specific Gravity Flowing Fluid XXXXX			
3.	0.913	540	1.357	.871	Critical Pressure 666 P.S.I.A.		P.S.I.A.	
4.	0.9.3	540	1.357	.871	Critical Temperature 398 R		R	
5.								
$P_c = 2477$ $P_c^2 = 6135$								
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.0818$			$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7135$
1			5495	640	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 519$			
2			4887	1248				
3			4137	1998				
4			3188	2947				
5								
Absolute Open Flow 519 Mcfd @ 15.025					Angle of Slope 53.7 deg		Slope, n 0.7345	
Remarks: Pressures by deadweight testers. Calculations worksheet C-122D attached.								
Approved By Commission:		Conducted By: Bill Trembley, Jr.		Calculated By: Eddie Mahfood		Checked By:		