

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 3-17-77		MAY 13 1977	
Company Yates Petroleum Corp.				Connection Transwestern Pipeline Co.		O.C.C.	
Pool Cemetery				Formation Morrow		Unit ANTHONY, OFFICE	
Completion Date 1-16-76		Total Depth 9715'KB		Plug Back TD 9596'KB		Elevation 3556'KB	
Farm or Lease Name Federal "FC"				Well No. 1			
Csg. Size 5 1/2"	Wt. 17#	d 4.778	Set At 9658'KB	Perforations: From 9547 To 9557'KB		Unit Sec. Twp. Rge. 0 19- 20S- 25E	
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 9545'KB	Perforations: From 9497 To 9499'KB			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9490'KB		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 166° 9552'		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2	
State New Mexico							
L 9540	H 9540	Gg 0.579	% CO ₂ 0.66	% N ₂ 0.74	% H ₂ S Nil	Prover 2"	Meter Run 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							2940	62			Months
1.	2.067	X	0.750	350	12	68	2801	68			1 hr.
2.				353	26	68	2707	69			1 hr.
3.				355	52	68	2575	66			1 hr.
4.				357	96	68	2395	62			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	2.709	65.93	362.2	0.9924	1.314	1.0268	239
2		97.44	366.2	0.9924	1.314	1.0270	354
3		138.37	368.2	0.9924	1.314	1.0273	502
4		188.52	370.2	0.9924	1.314	1.0276	684
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.537	528	1.513	.9485			0.579		675	349
2.	0.541	528	1.513	.9480						
3.	0.545	528	1.513	.9475						
4.	0.548	528	1.513	.9470						
5.										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1			12093	1195
2			11333	1955
3			10330	2958
4			9012	4276
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.1076$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.601$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1779$

Absolute Open Flow	1779 Mcfd @ 15.025	Angle of Slope	49°52'	Slope, n	.843
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Remarks: Pressures by DWT. Calculations worksheet form C-122D attached.

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