

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

APR 13 1977

12-2 file
 Form C-122
 Revised 9-1-65
 file
 Epr.

Type Test ☒ Initial ☐ Special						Test Date 3-6-76			
Company Yates Petroleum Corp.						Connection Transwestern Pipeline Company			
Pool <i>Eagle Creek Strawn</i> Undesignated						Formation Strawn			
Completion Date 10-18-75		Total Depth 8180' KB		Plug Back TD 7827' KB		Elevation 3587' KB		Farm or Lease Name NM 0219603	
Csg. Size 4 1/2"	Wt. 11.6#	d 4.000	Set At 7866'	Perforations: From 7639' To 7645' KB		Well No. 12			
Thq. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 7571'	Perforations: From To		Unit K	Sec. 21-	Twp. 17S-	Rge. 25E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 7571' KB		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 131		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 7628	H 7628	G _g	% CO ₂ 0.44	% N ₂ 0.35	% H ₂ S Nil	Prover	Meter Run 2"	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							2226	51			Months
1.	2.067	X	0.753	300	12	66	2144	60			1 hr.
2.				300	24	66	2100	64			1 hr.
3.				301	41	66	2008	66			1 hr.
4.				302	62	66	1906	68			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.709	61.31	313.2	0.9943	1.264	1.0288	215
2		86.70	313.2			1.0288	304
3		113.50	314.2			1.0290	398
4		139.79	315.2			1.0291	490
5							

NO.	P _t	Temp. °R	T _r	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	.466	526	1.433	.9448	385.0	52.6	.626	.634	672	367
2	.466	526	1.433	.9448						
3	.468	526	1.433	.9445						
4	.469	526	1.433	.9443						
5										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1			7097	591
2			6792	896
3			6205	1483
4			5589	2099
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.6627$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1068 \text{ MCFPD}$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1797$

Absolute Open Flow	1068	Mcfd @ 15.025	Angle of Slope ϕ	59°	Slope, n	0.6002
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Remarks: Pressures by DWT. Calculations worksheet C-122D attached.

Approved By Commission:	Conducted By: Ronnie Willis	Calculated By: Eddie Mahfood	Checked By:
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