NEW MEXICO OIL CONSERVATION COMMISSION

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MULTI POINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

APR 13 1977

O. C. C.
ARTESIA, OFFICE

Form C-122
Revised 9-1-65

122 file
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Ep...

P-5460

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 3-5-77	
Company: Yates Petroleum Corp.			Connection: Transwestern Pipeline Co.		
Pool: Undesignated Fichait-Knob-Atoka-Morrow			Formation: Morrow		Unit: NM 15664
Completion Date: 6-3-75	Total Depth: 8413'KB	Plug Back TD: 8267'KB		Elevation: 3649'KB	Farm or Lease Name: Federal "EF" Com
Csg. Size: 4½"	Wt.: 11.6#	d: 4.000	Set At: 8320'KB	Perforations: From 8202' To 8212'KB	Well No.: 1
Tbg. Size: 2-3/8"	Wt.: 4.7#	d: 1.995	Set At: 8181'KB	Perforations: From X-Over Tool@ 6372'KB	Unit: O Sec.: 6 Twp.: 18S Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - G.G.				Packer Set At: 8181' and 6372'KB	County: Eddy
Producing Thru: Csg.Annulus	Reservoir Temp. °F: @ 136	Mean Annual Temp. °F: 62		Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8190	8190		0.63	0.32	Nil		2"	Flange

	FLOW DATA				TUBING DATA		CASING 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							2376	59	Months
1.	2.067 X 0.500	340	20	68			2060	63	1 hr.
2.		340	44	68			1946	64	1 hr.
3.		341	76	68			1845	65	1 hr.
4.		342	96	68			1790	66	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	1.189	84.05	353.2	.9924	1.267	1.0320	130
2.		124.66	353.2			1.0320	192
3.		164.07	354.2			1.0322	253
4.		184.66	355.2			1.0323	285
5.							

NO.	P_t	Temp. °R	T_r	Z
1	0.524	528	1.4426	.939
2.	0.524	528	1.4426	.939
3.	0.526	528	1.4426	.9385
4.	0.527	528	1.4426	.9385
5.				

Gas Liquid Hydrocarbon Ratio 559.2 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 60.3 Deg.
Specific Gravity Separator Gas .623 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.628
Critical Pressure 674 P.S.I.A. 673 P.S.I.A.
Critical Temperature 366 R 366 R

P_c 2977.3 P_c^2 8864

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			6674	2190
2			5954	2910
3			5350	3514
4			5032	3832
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.3132$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.3132$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 659 MCFPD

Absolute Open Flow 659 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1.000

Remarks: Pressures by DWT. Calculation worksheet C-122D attached.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Matt Lee	Eddie Mahfood	