NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

MAY 1 1981

O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 3-23-81	
Company: Yates Petroleum Corporation			Connection: El Paso Natural Gas Company		
Pool: Crooked Creek Morrow			Formation: Morrow		Unit:
Completion Date: 10-17-80	Total Depth: 10707 KB		Plug Back TD: 10613 KB	Elevation: 4194 KB	Farm or Lease Name: Lechuguilla Canyon Unit
Csg. Size: 4 1/2" / Wt.: 11.6# / d: 4.000" / Set At: 10699KB			Perforations: From 10476 To 10484		Well No.: 8
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: 1.995" / Set At: 10440KB			Perforations: From To		Unit: K / Sec.: 10 / Twp.: 24s / Rge.: 24e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: single			Packer Set At: 10440		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 163 @ 10480	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
10470	10470	0.589	1.34	0.19	N.7	--	4	Flanged

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							2161	60			Weeks
1.	4.026	X	1.250	595	5	77	2003	75			21 hrs.
2.	4.026	X	1.250	596	9	77	1880	76			24 hrs.
3.	4.026	X	1.250	608	21	76	1514	77			24 hrs.
4.	4.026	X	1.250	611	31	76	1213	78			24 hrs.
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	7.469	55.15	608.2	.9840	1.305	1.044	552
2	7.469	74.05	609.2	.9840	1.305	1.044	741
3	7.469	114.22	621.2	.9850	1.305	1.045	1146
4	7.469	139.10	624.2	.9850	1.305	1.046	1397
5							

NO.	P_t	Temp. °R	T_r	Z
1	.898	537	1.532	.9176
2.	.899	537	1.532	.9175
3.	.917	536	1.529	.9151
4.	.921	536	1.529	.9147
5				

Gas Liquid Hydrocarbon Ratio -------- Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ------ Deg.
Specific Gravity Separator Gas 0.587 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.589
Critical Pressure 677.5 P.S.I.A. 826 P.S.I.A.
Critical Temperature 350.5 R 405.5 R

P_c 4187.2 P_c^2 17533

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3968.4	15748	1785
2		3814.6	14551	2982
3		3359.5	11286	6247
4		2992.4	8954	8579
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.0437$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5228$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2127$

Absolute Open Flow 2127 Mcfd @ 15.025 Angle of Slope @ 59.5 deg. Slope, n 0.5884

Remarks: Static BHP extrapolated from BHP build up by Bennett Wireline, tubing pressures from DWT. Well gradually cleaned up on sales line.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Tracy Richardson	Eddie Mahfood	