c/SF File

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

Form C-122

Type Test [x] Initial [ ] Annual [ ] Special						Test Date 3/18/88			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company					
Pool Richard Knob Atoka-Morrow				Formation Atoka Morrow				Unit	
Completion Date 4/21/81		Total Depth 8670.0'		Plug Back TD 8594.0'		Elevation 3573.0'		Farm or Lease Name Federal AB	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 8670.0'	Perforations: From 8240.0' To 8330.0'				Well No. 7	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 8196.0'	Perforations: From 0.0' To 0.0'				Unit Sec E 9	Twp 18S Rge 25E
Type Well Single				Packer Set At 8196.0'				County Eddy	
Producing Thru Tubing		Resv. Temp. °F 177 @ 8195'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 8196.0'	H 8196.0'	Gg .657	%CO2 3.03	%N2 .67	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange	

	FLOW DATA				TUBING DATA		CASING DATA		
NO	Prover Size	Orifice X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	Duration of Flow
SI	0.000	X 0.000	0	0.0	47	2353	0	0	0	0 hrs.
1.	2.067	X .750	240	19.6	47	2056	62	0	0	24 hrs.
2.	2.067	X .750	240	31.2	47	1944	62	0	0	24 hrs.
3.	2.067	X .750	230	39.9	47	1816	62	0	0	24 hrs.
4.	2.067	X .750	230	55.0	47	1750	62	0	0	24 hrs.
5.	0.000	X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	$\sqrt{hw}Pm$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	2.709	70.45	253.20	1.013	1.234	1.025	244
2.	2.709	88.88	253.20	1.013	1.234	1.025	308
3.	2.709	98.51	243.20	1.013	1.234	1.024	341
4.	2.709	115.65	243.20	1.013	1.234	1.024	401
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z
1.	.37	507	1.38	.952
2.	.37	507	1.38	.952
3.	.36	507	1.38	.954
4.	.36	507	1.38	.954
5.	0.00	0	0.00	0.000

Gas Liquid Hydrocarbon Ratio 171.710 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 51.800 Deg.
Specific Gravity Separator Gas .657 | xxxxxxxxxxxxx
Specific Gravity Flowing Fluid xxxxx | .675
Critical Pressure 682.0 PSIA | 681.4 PSIA
Critical Temperature 367.9°R | 373.7°R

Pc 2366.2 Pc^2 5598.9

NO	Pt^2	Pw	Pw^2	Pc^2-Pw^2
1.	4281.6	2069.6	4283.0	1315.9
2.	3830.6	1957.8	3832.9	1766.0
3.	3346.0	1830.0	3348.8	2250.1
4.	3108.9	1764.3	3112.8	2486.1
5.	0.0	0.0	0.0	0.0

(1) $\frac{Pc^2}{Pc^2-Pw^2}$ = 2.2554 (2) $\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n$ = 1.8818

$AOF = Q\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n$ = 754 Mcfd

Absolute Open Flow 754 Mcfd @ 15.025 | Angle of Slope, θ 38 | Slope, n .777

Remarks:

Approved By:	Conducted By: Tracy Richardson	Calculated By: Andrea Carpenter	Checked By: