

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

43 File Form C-122

RECEIVED BY

Type Test [X] Initial [] Annual [] Special						Test Date 4/10/84		JUN 08 1984 O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company					
Pool Pecos Slope <i>ABO</i>				Formation ABO					
Completion Date 1/17/83		Total Depth 4200.0'		Plug Back TD 4087.0'		Elevation 3801.4'		Farm or Lease Name McClellan "MB" Fed	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4200.0'	Perforations: From 3766.0' To 3835.0'		Well No. 4			
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3720.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge A 31 5S 25E			
Type Well Single				Packer Set At 3720.0'		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 108 @ 3712'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3720.0'	H 3720.0'	Gg .650	%CO2 .02	%N2 5.85	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	0	980	0	0	0	0 hrs.
1.	2.067 X 1.000	205	45.2	68	791	62	0	0	24 hrs.
2.	2.067 X 1.000	220	47.6	68	731	62	0	0	24 hrs.
3.	2.067 X 1.000	240	65.7	69	691	62	0	0	24 hrs.
4.	2.067 X 1.000	280	75.0	69	620	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)	hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	4.947	99.31	218.20	.992	1.240	1.017	615
2.	4.947	105.36	233.20	.992	1.240	1.018	653
3.	4.947	128.98	253.20	.991	1.240	1.019	800
4.	4.947	148.29	293.20	.991	1.240	1.023	923
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1.	.33	528	1.48	.968	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.35	528	1.48	.965	Specific Gravity Separator Gas .650 xxxxxxxxxxxxxx
3.	.38	529	1.49	.962	Specific Gravity Flowing Fluid xxxxxx .650
4.	.44	529	1.49	.956	Critical Pressure 660.6 PSIA 660.6 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 356.1°R 356.1°R

Pc 993.2 Pc2 986.4				
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)
1.	646.7	807.2	651.5	334.9
2.	553.8	747.8	559.3	427.2
3.	495.9	710.0	504.1	482.3
4.	400.9	641.9	412.0	574.5
5.	0.0	0.0	0.0	0.0

$$\frac{Pc^2}{Pc^2 - Pw^2} = \frac{1.7060}{(2)} \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.4911$$

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1376 \text{ Mcfd}$$

Absolute Open Flow 1376 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .748
Remarks: _____

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
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Adopted 9-1-65

DATE 6/6/84

COMPANY Yates Petroleum Corporation LEASE McClellan "MB" Fed WELL NO. 4LOCATION: Unit A Section 31 Township 5S Range 25EL 3720.0 H 3720.0 L/H 1.000 G .650 %CO₂ .02 %N₂ 5.85 %H₂S 0.00d 1.995 Fr .017777 GH 2418.0 Pcr 660.6 Tcr 356.1

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.615	.653	.800	.923	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	568.0	568.0	568.0	568.0	0.0
4 T=(Tw+Ts)/2	545.0	545.0	545.0	545.0	0.0
5 Z(Est.)	.887	.895	.900	.909	0.000
6 TZ	483.4	487.6	490.5	495.6	0.0
7 GH/TZ	5.002	4.958	4.930	4.879	0.000
8 e ^s (Table XIV)	1.206	1.204	1.203	1.201	0.000
9 1-e ^{-s} (Table XIV)	.171	.170	.169	.167	0.000
10 Pt	804.2	744.2	704.2	633.2	0.0
11 Pt ² /1000	646.7	553.8	495.9	400.9	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.593	8.673	8.723	8.810	0.000
14 FcQm	5.283	5.664	6.978	8.129	0.000
15 L/H(FcQm) ²	27.914	32.085	48.689	66.086	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	4.774	5.441	8.215	11.050	0.000
17 Pw ² =Pt ² +Fw	651.5	559.3	504.1	412.0	0.0
18 Ps ² =e ^s Pw ²	785.9	673.5	606.4	494.7	0.0
19 Ps	886.5	820.7	778.7	703.4	0.0
20 P=(Pt+Ps)/2	845.4	782.4	741.5	668.3	0.0
21 Pr=(P/Pcr)	1.28	1.18	1.12	1.01	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.887	.895	.900	.909	0.000

Company	Yates Petroleum Corporation
Well	McClellan "MB" Fed No. 4
Location	R, 31-5S-25E
County	Chaves
Date	6/6/84

