

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

Form C-122

NOV 14 1991

Type Test [x] Initial [] Annual [] Special				Test Date 3/8/86		O. C. D. ARTESIA OFFICE	
Company Yates Petroleum Corporation				Connection El Paso			
Pool Morrow				Formation Little Box Canyon		Unit Little Box Canyon	
Completion Date 3/7/84		Total Depth 8450.0'		Plug Back TD 8394.0'		Elevation 4429.0'	
Farm or Lease Name Little Box Canyon				Well No. 5			
Csg Size 5.500"	Wt. 14.000#	d 5.012"	Set At 8450.0'	Perforations: From 8069.0' To 8131.0'		Unit Sec Twp Rge N 7 21S 22E	
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 8033.0'	Perforations: From 0.0' To 0.0'			
Type Well Single				Packer Set At 8033.0'		County Eddy	
Producing Thru Tubing		Resv. Temp. °F 170 @ 8030'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 8033.0'		H 8033.0'		Gg .699		%CO2 .02	
				%N2 1.25		%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	57	1950	0	0	0	0 hrs.
1.	2.067 X 1.375	300	5.0	58	1731	62	0	0	24 hrs.
2.	2.067 X 1.375	310	5.2	60	1698	62	0	0	24 hrs.
3.	2.067 X 1.375	310	7.3	57	1653	62	0	0	24 hrs.
4.	2.067 X 1.375	320	8.5	61	1615	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.	10.204	39.57	313.20	1.002	1.196	1.035	501
2.	10.204	41.00	323.20	1.000	1.196	1.036	518
3.	10.204	48.57	323.20	1.003	1.196	1.036	616
4.	10.204	53.22	333.20	.999	1.196	1.037	673
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.	.47	518	1.34	.934	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.48	520	1.35	.932	Specific Gravity Separator Gas	.699	xxxxxxxxxxxxxx
3.	.48	517	1.34	.931	Specific Gravity Flowing Fluid	xxxxxx	.699
4.	.50	521	1.35	.931	Critical Pressure	666.5	PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	385.1	°R

Pc 1963.2 Pc² 3854.2

NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	$\frac{Pc^2}{Pc^2-Pw^2} = 3.2033$	(2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 2.3872$
1.	3042.2	1744.8	3044.3	809.9		
2.	2928.2	1711.9	2930.4	923.7		
3.	2776.2	1667.1	2779.4	1074.8		
4.	2651.0	1629.4	2654.8	1199.3		
5.	0.0	0.0	0.0	0.0		

$$AOF = Q \left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 1606 \text{ Mcfd}$$

Absolute Open Flow 1606 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .747

Remarks:

Approved By:	Conducted By: Ed Perry	Calculated By: Andrea Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 10/29/91

COMPANY Yates Petroleum Corporation LEASE Little Box Canyon WELL NO. 5

LOCATION: Unit N Section 7 Township 21S Range 22E

L 8033.0 H 8033.0 L/H 1.000 G .699 %CO2 .02 %N2 1.25 %H2S 0.00

d 2.441 Fr .010495 GH 5615.1 Pcr 666.5 Tcr 385.1

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.501	.518	.616	.673	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	630.0	630.0	630.0	630.0	0.0
4 T=(Tw+Ts)/2	576.0	576.0	576.0	576.0	0.0
5 Z(Est.)	.774	.776	.778	.780	0.000
6 TZ	446.0	446.8	448.1	449.3	0.0
7 GH/TZ	12.590	12.567	12.532	12.499	0.000
8 e ^s (Table XIV)	1.603	1.602	1.600	1.598	0.000
9 1-e ^{-s} (Table XIV)	.376	.376	.375	.374	0.000
10 Pt	1744.2	1711.2	1666.2	1628.2	0.0
11 Pt ² /1000	3042.2	2928.2	2776.2	2651.0	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.681	4.689	4.703	4.715	0.000
14 FcQm	2.344	2.430	2.898	3.172	0.000
15 L/H(FcQm) ²	5.496	5.906	8.398	10.060	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.068	2.219	3.149	3.764	0.000
17 Pw ² =Pt ² +Fw	3044.3	2930.4	2779.4	2654.8	0.0
18 Ps ² =e ^s Pw ²	4881.1	4694.5	4446.6	4242.1	0.0
19 Ps	2209.3	2166.7	2108.7	2059.6	0.0
20 P=(Pt+Ps)/2	1976.8	1938.9	1887.5	1843.9	0.0
21 Pr=(P/Pcr)	2.97	2.91	2.83	2.77	0.00
22 Tr=(T/Tcr)	1.50	1.50	1.50	1.50	0.00
23 Z(Table XI)	.774	.776	.778	.780	0.000

Company
Well
Location
County
Date

Yates Petroleum Corporation
Little Box Canyon No. 5
N, 7-21S-22E
Eddy
10/29/91

