

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

FORM C-122

RECEIVED

JAN 20 1983

Type Test [X] Initial [] Annual [] Special				Test Date 11/14/82		JAN 20 1983	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		O. C. D. ARTESIA OFFICE	
Pool Pecos Slope - Abo Gas				Formation Abo		Unit	
Completion Date 5/17/82		Total Depth 4550.0'		Plug Back TD 3534.0'		Elevation 3685.8'	
Farm or Lease Name Rita "T2" Federal				Well No. 1			
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4550.0'	Perforations: From 3961.0' To 4309.0'		Unit Sec Twp Rge D 4 SS 26E	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3908.0'	Perforations: From 0.0' To 0.0'			
Type Well Single				Packer Set At 3908.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 94 @ 0'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 3908.0'		H 3908.0'		Gg .642	%CO2 .04	%N2 5.18	%H2S 0.00
Proven 0.000"		Meter Run 2.000"		Taps Flange			

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven 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	72	996	0	0	0	0 hrs.
1.	2.067 X 1.000	165	14.8	75	896	62	0	0	24 hrs.
2.	2.067 X 1.000	170	27.1	72	844	62	0	0	24 hrs.
3.	2.067 X 1.000	180	37.6	72	798	62	0	0	24 hrs.
4.	2.067 X 1.000	200	50.0	72	720	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	51.36	178.20	.986	1.248	1.013	317
2.	4.947	70.46	183.20	.989	1.248	1.013	436
3.	4.947	85.23	193.20	.989	1.248	1.014	528
4.	4.947	103.25	213.20	.989	1.248	1.016	640
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pn	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry	Mcf/bbl.
1.	.27	535	1.49	.975	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.28	532	1.49	.974	Specific Gravity Separator Gas	.642
3.	.29	532	1.49	.972	Specific Gravity Flowing Fluid	.642
4.	.32	532	1.49	.969	Critical Pressure	661.0 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	358.0°R

NO	Pt ²	√Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2-Pw^2}$	(2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n$
1.	826.6	909.9	827.9	190.6	2.8577	2.3536
2.	734.8	858.6	737.2	281.3		
3.	658.0	813.4	661.6	356.9		
4.	537.6	736.8	542.9	475.6		
5.	0.0	0.0	0.0	0.0		

Absolute Open Flow 1242 Mcfd @ 15.025 Angle of Slope, 0 39 Slope, n .815
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Alderson	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 1/19/83

COMPANY Yates Petroleum Corporation LEASE Rita "T2" Federal WELL NO. 1

LOCATION: Unit D Section 4 Township 8S Range 26E

L 3908.0 H 3908.0 L/H 1.000 G .642 %CO₂ .04 %N₂ 5.18 %H₂S 0.00

d 1.995 Fr .017777 GH 2508.9 Pcr 661.0 Tcr 358.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.317	.436	.528	.640	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	554.0	554.0	554.0	554.0	0.0
4 T=(Tw+Ts)/2	538.0	538.0	538.0	538.0	0.0
5 Z(Est.)	.865	.872	.878	.889	0.000
6 TZ	465.1	468.9	472.3	478.2	0.0
7 GH/TZ	5.394	5.351	5.312	5.247	0.000
8 e ^s (Table XIV)	1.224	1.222	1.220	1.217	0.000
9 1-e ^{-s} (Table XIV)	.183	.182	.181	.179	0.000
10 Pt	909.2	857.2	811.2	733.2	0.0
11 Pt ² /1000	826.6	734.8	658.0	537.6	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.276	8.343	8.396	8.506	0.000
14 FcQm	2.620	3.637	4.431	5.447	0.000
15 L/H(FcQm) ²	6.866	13.226	19.631	29.666	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.256	2.403	3.546	5.296	0.000
17 Pw ² =Pt ² +Fw	827.9	737.2	661.6	542.9	0.0
18 Ps ² =e ^s Pw ²	1013.3	900.8	807.4	660.8	0.0
19 Ps	1006.6	949.1	898.6	812.9	0.0
20 P=(Pt+Ps)/2	957.9	903.2	854.9	773.1	0.0
21 Pr=(P/Pcr)	1.45	1.37	1.29	1.17	0.00
22 Tr=(T/Tcr)	1.50	1.50	1.50	1.50	0.00
23 Z(Table XI)	.865	.872	.878	.889	0.000

Company	Yates Petroleum Corporation
Well	Rita "TZ" Federal No. 1
Location	D, 4-8S-26E
County	Chaves
Date	1/19/83

