

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

Form O-122
RECEIVED

SEP 18 '90

Type Test [x] Initial [] Annual [] Special					Test Date 1/05/89			
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company		C. O. ARTESIA, OFFICE	
Pool Abo					Formation Pecos Slope		Unit	
Completion Date 5/15/83		Total Depth 3450.0'		Plug Back TD 3410.0'		Elevation 3835.1'		Farm or Lease Name Mildred XD Federal
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 3450.0'	Perforations: From 2795.0' To 2816.0'		Well No. 1		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 2762.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge A 33 7S 23E		
Type Well Single					Packer Set At 2762.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 100 @ 2760'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 2762.0'	H 2762.0'	Gg .612	%O2 .02	%N2 7.27	%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	48	1000	0	0	0	0 hrs.
1.	2.067 X .875	290	58.0	47	810	62	0	0	24 hrs.
2.	2.067 X .875	300	60.1	45	780	62	0	0	24 hrs.
3.	2.067 X .875	305	75.6	46	761	62	0	0	24 hrs.
4.	2.067 X .875	305	89.4	48	724	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)	$\sqrt{hwP_m}$	Pressure P _m	Flow Temp Factor F _t	Gravity Factor F _g	Super Compress. Fact. F _{pv}	Rate of Flow Q, Mcfd
1.	3.729	132.61	303.20	1.013	1.278	1.023	655
2.	3.729	137.20	313.20	1.015	1.278	1.024	680
3.	3.729	155.10	318.20	1.014	1.278	1.025	768
4.	3.729	168.66	318.20	1.012	1.278	1.024	833
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.	.46	507	1.49	.955	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.47	505	1.49	.953	Specific Gravity Separator Gas	.612	xxxxxxxxxxxxxx
3.	.48	506	1.49	.952	Specific Gravity Flowing Fluid	xxxxxx	.612
4.	.48	508	1.50	.953	Critical Pressure	659.5 PSIA	659.5 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	339.6°R	339.6°R

Pc 1013.2 Pc² 1026.6

NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	$\frac{Pc^2}{Pc^2-Pw^2} = 2.1648$	(2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 1.7828$
1.	677.7	825.6	681.6	345.0		
2.	629.2	795.9	633.4	393.2		
3.	599.4	777.7	604.8	421.7		
4.	543.5	741.6	549.9	476.7		
5.	0.0	0.0	0.0	0.0		

ROF = $Q \left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 1486 \text{ Mcfd}$

Absolute Open Flow 1486 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .749
Remarks:

Approved By:	Conducted By: David Weaver	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 09/18/90

COMPANY Yates Petroleum Corporation LEASE Mildred XD Federal WELL NO. 1

LOCATION: Unit A Section 33 Township 7S Range 23E

L 2762.0 H 2762.0 L/H 1.000 G .612 %CO2 .02 %N2 7.27 %H2S 0.00

d 1.995 Fr .017777 GH 1690.3 Pcr 659.5 Tcr 339.6

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.655	.680	.768	.833	0.000
2 Tw(W.H.*R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.*R)	560.0	560.0	560.0	560.0	0.0
4 T=(Tw+Ts)/2	541.0	541.0	541.0	541.0	0.0
5 Z(Est.)	.902	.905	.907	.911	0.000
6 TZ	487.9	489.6	490.7	492.9	0.0
7 GH/TZ	3.465	3.452	3.445	3.429	0.000
8 e ^s (Table XIV)	1.139	1.138	1.138	1.137	0.000
9 1-e ^{-s} (Table XIV)	.122	.121	.121	.121	0.000
10 Pt	823.2	793.2	774.2	737.2	0.0
11 Pt ² /1000	677.7	629.2	599.4	543.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.676	8.706	8.726	8.764	0.000
14 FcQm	5.684	5.920	6.702	7.303	0.000
15 L/H(FcQm) ²	32.303	35.041	44.912	53.330	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.935	4.254	5.441	6.434	0.000
17 Pw ² =Pt ² +Fw	681.6	633.4	604.8	549.9	0.0
18 Ps ² =e ^s Pw ²	776.1	720.9	688.2	625.3	0.0
19 Ps	881.0	849.1	829.6	790.8	0.0
20 P=(Pt+Ps)/2	852.1	821.1	801.9	764.0	0.0
21 Pr=(P/Pcr)	1.29	1.25	1.22	1.16	0.00
22 Tr=(T/Tcr)	1.59	1.59	1.59	1.59	0.00
23 Z(Table XI)	.902	.905	.907	.911	0.000

Company	Yates Petroleum Corporation
Well	Mildred XD Federal No. 1
Location	R, 33-7S-23E
County	Chaves
Date	09/18/90

