

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

Form C-122

RECEIVED

Type Test [X] Initial [] Annual [] Special				Test Date 1/20/88	
Company Yates Petroleum Corporation				Connection Yates Petroleum Corporation	
Pool Wildcat				Formation Strawn	
Completion Date 3/5/87		Total Depth 9800.0'		Elevation 3281.0'	
Csg Size 5.500"	Wt. 14.000#	d 5.012"	Set At 9800.0'	Perforations: From 8720.0' To 8725.0'	
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 8673.0'	Perforations: From 0.0' To 0.0'	
Type Well Single				Packer Set At 8673.0'	
Producing Thru Tubing		Resu. Temp. °F 161 @ 8723'		Baro. Press. - Pa 13.2 psia.	
L 8673.0'	H 8673.0'	Gg .630	%CO2 .23	%N2 .93	%H2S 0.00
Prover 0.000"		Meter Run 2.000"		Taps Flange	

MAY 04 '88

ARTESIA OFFICE

Farm or Lease Name

Compromise REJ Fed

Well No.

1

Unit Sec Twp Rge

H 30 18S 27E

County

Eddy

State

New Mexico

FLOW DATA

NO	Prover Orifice		Press. psig	Diff. hw	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
	Size	X Size				Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000	X 0.000	0	0.0	38	2349	0	0	0	0 hrs.
1.	2.067	X 1.000	225	22.9	38	1641	62	0	0	24 hrs.
2.	2.067	X 1.000	240	27.4	38	1285	62	0	0	24 hrs.
3.	2.067	X 1.000	245	43.7	38	961	62	0	0	24 hrs.
4.	2.067	X 1.000	255	47.0	38	760	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	73.86	238.20	1.022	1.260	1.024	482
2.	4.947	83.29	253.20	1.022	1.260	1.026	544
3.	4.947	106.22	258.20	1.022	1.260	1.026	694
4.	4.947	112.27	268.20	1.022	1.260	1.027	735
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio
1.	.36	498	1.37	.953	43.820 Mcf/bbl.
2.	.38	498	1.37	.950	A.P.I. Gravity of Liquid Hydrocarbon 51.600 Deg.
3.	.39	498	1.37	.949	Specific Gravity Separator Gas .630
4.	.40	498	1.37	.947	Specific Gravity Flowing Fluid .699
5.	0.00	0	0.00	0.000	Critical Pressure 670.4 PSIA
					Critical Temperature 362.9°R

Pc 2362.2 Pc2 5580.0

NO	Pt2	Pw	Pw2	Pc2-Pw2	(1) $\frac{Pc2}{Pc2-Pw2}$	(2) $\left[\frac{Pc2}{Pc2-Pw2}\right]^n$
1.	2736.4	1654.8	2738.4	2841.6	1.1201	1.0890
2.	1685.3	1299.2	1688.0	3892.0		
3.	949.1	976.6	953.7	4626.3		
4.	597.8	776.7	603.2	4976.8		
5.	0.0	0.0	0.0	0.0		

$$AOF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 800 \text{ Mcfd}$$

Absolute Open Flow 800 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .752

Approved By:	Conducted By: Tracy Richardson	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 5/4/88

COMPANY Yates Petroleum Corporation LEASE Compromise REJ Fed WELL NO. 1

LOCATION: Unit H Section 30 Township 18S Range 27E

L 8673.0 H 8673.0 L/H 1.000 G .699 %CO₂ .23 %N₂ .93 %H₂S 0.00

d 2.441 Fr .010495 GH 6065.3 Pcr 668.0 Tcr 385.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.482	.544	.694	.735	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	621.0	621.0	621.0	621.0	0.0
4 T=(Tw+Ts)/2	571.5	571.5	571.5	571.5	0.0
5 Z(Est.)	.769	.798	.839	.870	0.000
6 TZ	439.6	456.0	479.6	497.0	0.0
7 GH/TZ	13.799	13.302	12.647	12.204	0.000
8 e ^s (Table XIV)	1.678	1.647	1.607	1.580	0.000
9 1-e ^{-s} (Table XIV)	.404	.393	.378	.367	0.000
10 Pt	1654.2	1298.2	974.2	773.2	0.0
11 Pt ² /1000	2736.4	1685.3	949.1	597.8	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.613	4.786	5.033	5.216	0.000
14 FcQm	2.223	2.604	3.495	3.832	0.000
15 L/H(FcQm) ²	4.940	6.783	12.214	14.685	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.995	2.664	4.613	5.393	0.000
17 Pw ² =Pt ² +Fw	2738.4	1688.0	953.7	603.2	0.0
18 Ps ² =e ^s Pw ²	4594.2	2779.6	1532.4	953.3	0.0
19 Ps	2143.4	1667.2	1237.9	976.4	0.0
20 P=(Pt+Ps)/2	1898.8	1482.7	1106.1	874.8	0.0
21 Pr=(P/Pcr)	2.84	2.22	1.66	1.31	0.00
22 Tr=(T/Tcr)	1.48	1.48	1.48	1.48	0.00
23 Z(Table XI)	.769	.798	.839	.870	0.000

Company	Yates Petroleum Corporation
Well	Compromise AEJ Fed No. 1
Location	H, 30-18S-27E
County	Eddy
Date	5/4/88

