

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

Form C-122

dsf file

Type Test [x] Initial [] Annual [] Special				Test Date 3/2/88	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company	
Pool Pecos Slope ABO				Formation Abo	
Completion Date 1/20/83		Total Depth 4225.0'		Plug Back TD 4070.0'	
				Elevation 3602.7'	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4225.0'	Perforations: From 3799.0' To 4002.0'	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3778.0'	Perforations: From 0.0' To 0.0'	
Type Well Single				Packer Set At 3778.0'	
Producing Thru Tubing		Resv. Temp. °F 84 @ 3758'		Mean Temp. °F 62.0	
				Baro. Press. - Pa 13.2 psia.	
L 3778.0'		H 3778.0'		Gg .666	%CO2 .04
				%N2 10.02	%H2S 0.00
				Prover 0.000"	Meter Run 2.000"
				Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO	Prover Size	Orifice 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	40	800	0	0	0	0 hrs.
1.	2.067	X 1.375	170	30.6	40	593	62	0	0	24 hrs.
2.	2.067	X 1.375	170	37.5	40	557	62	0	0	24 hrs.
3.	2.067	X 1.375	180	49.1	40	517	62	0	0	24 hrs.
4.	2.067	X 1.375	180	54.0	40	440	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)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	74.87	183.20	1.020	1.225	1.016	970
2.	10.204	82.89	183.20	1.020	1.225	1.016	1074
3.	10.204	97.40	193.20	1.020	1.225	1.017	1263
4.	10.204	102.14	193.20	1.020	1.225	1.017	1325
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.	.28	500	1.43	.969	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.		
2.	.28	500	1.43	.969	Specific Gravity Separator Gas .666 xxxxxxxxxxxxxxxx		
3.	.30	500	1.43	.967	Specific Gravity Flowing Fluid xxxxxx .666		
4.	.30	500	1.43	.967	Critical Pressure 653.1 PSIA 653.1 PSIA		
5.	0.00	0	0.00	0.000	Critical Temperature 349.7°R 349.7°R		

Pc	813.2	Pc2	661.3				
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	$\frac{Pc2}{Pc2-Pw2} = 1.5325$ (2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1.3612$		
1.	367.5	616.3	379.8	281.4	$ROF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1803 \text{ Mcfd}$		
2.	325.1	583.4	340.4	320.9			
3.	281.1	549.9	302.3	358.9			
4.	205.4	478.6	229.0	432.3			
5.	0.0	0.0	0.0	0.0			

Absolute Open Flow 1803 Mcfd @ 15.025 Angle of Slope, 0 36 Slope, n .722
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 4/26/88

COMPANY Yates Petroleum Corporation LEASE Leede UG Federal WELL NO. 1

LOCATION: Unit E Section 11 Township 8S Range 25E

L 3778.0 H 3778.0 L/H 1.000 G .666 %CO₂ .04 %N₂ 10.02 %H₂S 0.00

d 1.995 Fr .017777 GH 2516.1 Pcr 653.1 Tcr 349.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.970	1.074	1.263	1.325	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	544.0	544.0	544.0	544.0	0.0
4 T=(Tw+Ts)/2	533.0	533.0	533.0	533.0	0.0
5 Z(Est.)	.910	.915	.921	.931	0.000
6 TZ	485.2	487.8	490.6	496.4	0.0
7 GH/TZ	5.185	5.158	5.128	5.069	0.000
8 e ^s (Table XIV)	1.215	1.213	1.212	1.209	0.000
9 1-e ^{-s} (Table XIV)	.177	.176	.175	.173	0.000
10 Pt	606.2	570.2	530.2	453.2	0.0
11 Pt ² /1000	367.5	325.1	281.1	205.4	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.626	8.672	8.723	8.824	0.000
14 FcQm	8.367	9.312	11.018	11.688	0.000
15 L/H(FcQm) ²	70.006	86.713	121.387	136.608	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	12.371	15.250	21.233	23.648	0.000
17 Pw ² =Pt ² +Fw	379.8	340.4	302.3	229.0	0.0
18 Ps ² =e ^s Pw ²	461.4	413.0	366.4	277.0	0.0
19 Ps	679.3	642.7	605.3	526.3	0.0
20 P=(Pt+Ps)/2	642.7	606.4	567.8	489.7	0.0
21 Pr=(P/Pcr)	.98	.93	.87	.75	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.910	.915	.921	.931	0.000

Company	Yates Petroleum Corporation
Well	Leede UG Federal No. 1
Location	E, 11-8S-25E
County	Chaves
Date	4/26/88

