

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

RECEIVED BY
GAS JUN 12 1985 C-122
O. C. D.
ARTESIA, OFFICE

c/sf
File

Type Test [x] Initial [] Annual [] Special				Test Date 2/6/85			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company			
Pool Pecos Slope <i>Abso</i>				Formation Abo			
Completion Date 6/12/84				Total Depth 4255.0'		Elevation 3690.2'	
Csg Size 4.500"				Wt. 9.500#		d 4.090"	
Set At 4255.0'				Perforations: From 3797.0' To 3898.0'		Well No. 6	
Tbg Size 2.375"				Wt. 4.700#		d 1.995"	
Set At 3745.0'				Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge A 18 6S 26E	
Type Well Single				Packer Set At 3745.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 104 @ 3745'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 3745.0'		H 3745.0'		Gg .644		%CO2 .05	
				%N2 5.38		%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	70	946	0	0	0	0 hrs.
1.	2.067 X .625	530	20.0	70	725	62	0	0	24 hrs.
2.	2.067 X .625	515	30.0	70	655	62	0	0	24 hrs.
3.	2.067 X .625	510	37.1	70	549	62	0	0	24 hrs.
4.	2.067 X .625	505	58.6	70	393	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 Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	1.866	104.23	543.20	.991	1.246	1.043	250
2.	1.866	125.88	528.20	.991	1.246	1.042	302
3.	1.866	139.32	523.20	.991	1.246	1.042	334
4.	1.866	174.26	518.20	.991	1.246	1.041	418
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.	.82	530	1.49	.919	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.80	530	1.49	.921	Specific Gravity Separator Gas	.644
3.	.79	530	1.49	.922	Specific Gravity Flowing Fluid	.644
4.	.78	530	1.49	.922	Critical Pressure	661.7 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	355.4°R

Pc 959.2		Pc2 920.1	
NO	Pt2	Pw	Pw2
1.	544.9	738.7	545.7
2.	446.5	669.1	447.7
3.	316.1	563.5	317.5
4.	165.0	409.1	167.3
5.	0.0	0.0	0.0

$$P_{c2} = \frac{1.2284}{P_{c2} - P_{w2}} \quad (2) \quad \left[\frac{P_{c2}}{P_{c2} - P_{w2}} \right]^n = 1.1615$$

$$AOF = Q \left[\frac{P_{c2}}{P_{c2} - P_{w2}} \right]^n = 485 \text{ Mcfd}$$

Absolute Open Flow 485 Mcfd @ 15.025 Angle of Slope, 0 36 Slope, n .728

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 6/12/85

COMPANY Yates Petroleum Corporation LEASE Caudill "RZ" Com WELL NO. 6

LOCATION: Unit A Section 18 Township 6S Range 26E

L 3745.0 H 3745.0 L/H 1.000 G .644 %CO2 .05 %N2 5.38 %H2S 0.00

d 1.995 Fr .017777 GH 2411.8 Pcr 661.7 Tcr 355.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.250	.302	.334	.418	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	564.0	564.0	564.0	564.0	0.0
4 T=(Tw+Ts)/2	543.0	543.0	543.0	543.0	0.0
5 Z(Est.)	.895	.905	.919	.941	0.000
6 TZ	486.1	491.2	499.2	511.2	0.0
7 GH/TZ	4.961	4.910	4.832	4.718	0.000
8 e ^s (Table XIV)	1.204	1.202	1.199	1.194	0.000
9 1-e ^{-s} (Table XIV)	.170	.168	.166	.162	0.000
10 Pt	738.2	668.2	562.2	406.2	0.0
11 Pt ² /1000	544.9	446.5	316.1	165.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.642	8.737	8.873	9.087	0.000
14 FcQm	2.164	2.640	2.966	3.797	0.000
15 L/H(FcQm) ²	4.685	6.967	8.797	14.420	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.795	1.171	1.458	2.338	0.000
17 Pw ² =Pt ² +Fw	545.7	447.7	317.5	167.3	0.0
18 Ps ² =e ^s Pw ²	657.3	538.1	380.6	199.7	0.0
19 Ps	810.8	733.6	616.9	446.9	0.0
20 P=(Pt+Ps)/2	774.5	700.9	589.6	426.6	0.0
21 Pr=(P/Pcr)	1.17	1.06	.89	.64	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.895	.905	.919	.941	0.000

Company	Yates Petroleum Corporation
Well	Caudill "RZ" Com No. 6
Location	R, 18-6S-26E
County	Chaves
Date	6/12/85

$P_c^2 - P_w^2$, THOUSANDS

