

NL MEXICO OIL CONSERVATION COMI SION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR

C/SF File
Form C-122

RECEIVED BY

JUN 08 1984

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special				Test Date 5/1/84	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company	
Pool Undesignated				Formation Abo	
Completion Date 11/27/82		Total Depth 5225.0'		Elevation 3801.1'	
Csg Size 4.500"		Wt. 9.500#		Set At 5200.0'	
Tbg Size 2.375"		Wt. 4.700#		Set At 4473.0'	
Perforations: From 4519.0' To 4846.0'		Perforations: From 0.0' To 0.0'		Farm or Lease Name Witz "VN" State	
Unit Sec D 26		Twp 9S		Rge 26E	
Type Well Single				Packer Set At 4473.0'	
Producing Thru Tubing		Resv. Temp. °F 110 @ 4470'		Mean Temp. °F 62.0	
Baro. Press. - Pa 13.2 psia.		State New Mexico		County Chaves	
L 4473.0'		H 4473.0'		Gg .644	
%CO2 .02		%N2 5.41		%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	69	1022	0	0	0	0 hrs.
1.	2.067 X 1.125	255	10.8	69	937	62	0	0	24 hrs.
2.	2.067 X 1.125	185	20.6	69	875	62	0	0	24 hrs.
3.	2.067 X 1.125	180	47.5	69	795	62	0	0	24 hrs.
4.	2.067 X 1.125	180	68.0	69	725	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.	6.397	48.54	218.20	.991	1.246	1.016	390
2.	6.397	63.90	198.20	.991	1.246	1.015	512
3.	6.397	95.80	193.20	.991	1.246	1.014	768
4.	6.397	114.62	193.20	.991	1.246	1.014	919
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio A.P.I. Gravity of Liquid Hydrocarbons	Dry 0.000 Deg.	Mcf/bbl.
1.	.33	529	1.49	.968	Specific Gravity Separator Gas .644	xxxxxx	
2.	.30	529	1.49	.971	Specific Gravity Flowing Fluid xxxxxx	.644	
3.	.29	529	1.49	.972	Critical Pressure 661.5 PSIA	661.5 PSIA	
4.	.29	529	1.49	.972	Critical Temperature 355.3°R	355.3°R	
5.	0.00	0	0.00	0.000			

Pc 1035.2 Pc2 1071.6

NO	Pt2	Pw	Pw2	Pc2-Pw2	(1) $\frac{Pc2}{Pc2-Pw2}$	(2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n$
1.	902.9	951.4	905.1	166.6	2.0757	1.7399
2.	788.9	890.4	792.7	278.9		
3.	653.2	813.6	661.9	409.7		
4.	544.9	746.7	557.6	514.0		
5.	0.0	0.0	0.0	0.0		

$$ROF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1598 \text{ Mcfd}$$

Absolute Open Flow 1598 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .758
Remarks:

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

Adopted 9-1-65

DATE 6/7/84

COMPANY Yates Petroleum Corporation LEASE Witz "VN" State WELL NO. 1

LOCATION: Unit D Section 26 Township 9S Range 26E

L 4473.0 H 4473.0 L/H 1.000 G .644 %CO₂ .02 %N₂ 5.41 %H₂S 0.00

d 1.995 Fr .017777 GH 2880.6 Pcr 661.5 Tcr 355.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.390	.512	.768	.919	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	570.0	570.0	570.0	570.0	0.0
4 T=(Tw+Ts)/2	546.0	546.0	546.0	546.0	0.0
5 Z(Est.)	.870	.877	.887	.896	0.000
6 TZ	474.9	479.0	484.4	489.2	0.0
7 GH/TZ	6.065	6.014	5.947	5.888	0.000
8 e ^s (Table XIV)	1.255	1.253	1.250	1.247	0.000
9 1-e ^{-s} (Table XIV)	.203	.202	.200	.198	0.000
10 Pt	950.2	888.2	808.2	738.2	0.0
11 Pt ² /1000	902.9	788.9	653.2	544.9	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.443	8.515	8.611	8.701	0.000
14 FcQm	3.292	4.363	6.611	7.994	0.000
15 L/H(FcQm) ²	10.836	19.035	43.712	63.901	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.204	3.843	8.738	12.654	0.000
17 Pw ² =Pt ² +Fw	905.1	792.7	661.9	557.6	0.0
18 Ps ² =e ^s Pw ²	1136.2	993.3	827.3	695.3	0.0
19 Ps	1065.9	996.6	909.6	833.8	0.0
20 P=(Pt+Ps)/2	1008.1	942.4	858.9	786.0	0.0
21 Pr=(P/Pcr)	1.52	1.42	1.30	1.19	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.870	.877	.887	.896	0.000

Company	Yates Petroleum Corporation
Well	Witz "VN" State No. 1
Location	D, 26-9S-26E
County	Chaves
Date	6/7/84

