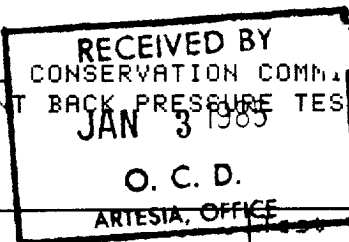


NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST (FOR GAS WELL)

Form C-122



9/51
File

Type Test [x] Initial [] Annual [] Special		Test Date 9/25/84	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company	
Pool Pecos Slope		Formation Abo	
Completion Date 11/14/82		Total Depth 4920.0'	Plug Back TD 4915.0'
		Elevation 3696.5'	Farm or Lease Name Kershaw "UE"
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4920.0'
Perforations: From 4219.0' To 4592.0'		Well No. 1	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 4155.0'
Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge I 19 8S 26E	
Type Well Single		Packer Set At 4157.0'	County Chaves
Producing Thru Tubing	Resv. Temp. °F 104 @ 4151'	Mean Temp. °F 62.0	Baro. Press. - Pa 13.2 psia.
State New Mexico			
L 4155.0'	H 4155.0'	Gg .657	%CO2 .08
%N2 8.22	%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	1000	0	0	0	0 hrs.
1.	2.067 X 1.250	161	11.2	70	943	62	0	0	24 hrs.
2.	2.067 X 1.250	169	20.4	70	911	62	0	0	24 hrs.
3.	2.067 X 1.250	172	27.2	70	873	62	0	0	24 hrs.
4.	2.067 X 1.250	220	30.0	70	860	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.	8.134	44.17	174.20	.991	1.234	1.013	445
2.	8.134	60.97	182.20	.991	1.234	1.014	614
3.	8.134	70.97	185.20	.991	1.234	1.014	715
4.	8.134	83.64	233.20	.991	1.234	1.017	845
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.	.27	530	1.51	.974	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.28	530	1.51	.973	Specific Gravity Separator Gas .657 xxxxxxxxxxxxxx
3.	.28	530	1.51	.973	Specific Gravity Flowing Fluid xxxxxx .657
4.	.36	530	1.51	.967	Critical Pressure 656.6 PSIA 656.6 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 351.7°R 351.7°R

Pc	1013.2	Pc ²	1026.6			
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2-Pw^2} = 4.0396$	(2) $\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n = 2.9019$
1.	914.3	957.6	917.0	109.5		
2.	854.1	927.0	859.4	167.2		
3.	785.4	890.2	792.5	234.1		
4.	762.5	878.9	772.4	254.1		
5.	0.0	0.0	0.0	0.0		

ROF = Q

$$\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n = \frac{2454 \text{ Mcfd}}{}$$

$$AOF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2454 \text{ Mcfd}$$

Absolute Open Flow 2454 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .763
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 12/28/84

COMPANY Yates Petroleum Corporation LEASE Kershaw "UE" WELL NO. 1

LOCATION: Unit I Section 19 Township 8S Range 26E

L 4155.0 H 4155.0 L/H 1.000 G .657 %CO₂ .08 %N₂ 8.22 %H₂S 0.00

d 1.995 Fr .017777 GH 2729.8 Pcr 656.6 Tcr 351.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.445	.614	.715	.845	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.)	.871	.875	.879	.881	0.000
6 TZ	473.0	475.0	477.4	478.2	0.0
7 GH/TZ	5.772	5.747	5.718	5.708	0.000
8 e ^s (Table XIV)	1.242	1.240	1.239	1.239	0.000
9 1-e ^{-s} (Table XIV)	.195	.194	.193	.193	0.000
10 Pt	956.2	924.2	886.2	873.2	0.0
11 Pt ² /1000	914.3	854.1	785.4	762.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.408	8.451	8.487	8.507	0.000
14 FcQm	3.740	5.191	6.071	7.193	0.000
15 L/H(FcQm) ²	13.987	26.951	36.856	51.735	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.722	5.221	7.113	9.963	0.000
17 Pw ² =Pt ² +Fw	917.0	859.4	792.5	772.4	0.0
18 Ps ² =e ^s Pw ²	1138.6	1065.8	982.0	956.7	0.0
19 Ps	1067.1	1032.4	990.9	978.1	0.0
20 P=(Pt+Ps)/2	1011.6	978.3	938.6	925.6	0.0
21 Pr=(P/Pcr)	1.54	1.49	1.43	1.41	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.871	.875	.879	.881	0.000

Company	Yates Petroleum Corporation
Well	Kershaw "UE" No. 1
Location	I, 19-8S-26E
County	Chaves
Date	12/28/84

