

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

Form C-122

RECEIVED

dsr
File

SEP 08 '87

Type Test [X] Initial [] Annual [] Special				Test Date 05/06/87	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company	
Pool 4/1/96 pool - South Pecos Slope 82730				Formation Abo	
Completion Date 11/14/82		Total Depth 4325.0'		Plug Back TD 4281.0'	
Csg Size 4.500"		Wt. 9.500#		Elevation 3525.0'	
Tbg Size 2.375"		Wt. 4.700#		Farm or Lease Name River Bridge UX St	
d 4.090"		Set At 4325.0'		Well No. 1	
d 1.995"		Set At 3857.0'		Unit Sec E 2	
Type Well Single		Packer Set At 3857.0'		Twp 9S	
Producing Thru Tubing		Resv. Temp. °F 99 @ 882'		Rge 25E	
Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		County Chaves	
L 3857.0'		H 3857.0'		State New Mexico	
Gg .661		%CO2 .02		Meter Run 2.000"	
%N2 9.94		%H2S 0.00		Prover 0.000"	
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	75	882	0	0	0	0 hrs.
1.	2.067	X 1.000	320	17.0	75	750	62	0	0	24 hrs.
2.	2.067	X 1.000	310	31.0	75	735	62	0	0	24 hrs.
3.	2.067	X 1.000	305	49.3	75	581	62	0	0	24 hrs.
4.	2.067	X 1.000	300	65.5	75	505	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	75.26	333.20	.986	1.230	1.023	462
2.	4.947	100.10	323.20	.986	1.230	1.023	614
3.	4.947	125.25	318.20	.986	1.230	1.022	768
4.	4.947	143.23	313.20	.986	1.230	1.022	878
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.	.51	535	1.54	.955	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.49	535	1.54	.956	Specific Gravity Separator Gas	.661	xxxxxx
3.	.49	535	1.54	.957	Specific Gravity Flowing Fluid	xxxxxx	.661
4.	.48	535	1.54	.958	Critical Pressure	653.3 PSIA	653.3 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	348.3°R	348.3°R

Pc 895.2 Pc2 801.4

NO	Pt2	Pw	Pw2	Pc2-Pw2	(1) $\frac{Pc2}{Pc2-Pw2}$	(2) $\left[\frac{Pc2}{Pc2-Pw2}\right]^n$
1.	582.5	765.1	585.3	216.1	1.5249	1.3570
2.	559.8	751.5	564.8	236.6		
3.	353.1	600.9	361.1	440.3		
4.	268.5	528.4	279.2	522.2		
5.	0.0	0.0	0.0	0.0		

$$ROF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1192 \text{ Mcfd}$$

Absolute Open Flow 1192 Mcfd @ 15.025 Angle of Slope, θ 36 Slope, n .724
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 09/04/87

COMPANY Yates Petroleum Corporation LEASE River Bridge UX St WELL NO. 1

LOCATION: Unit E Section 2 Township 9S Range 25E

L 3857.0 H 3857.0 L/H 1.000 G .661 %CO₂ .02 %N₂ 9.94 %H₂S 0.00

d 1.995 Fr .017777 GH 2549.5 Pcr 653.3 Tcr 348.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.462	.614	.768	.878	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	559.0	559.0	559.0	559.0	0.0
4 T=(Tw+Ts)/2	540.5	540.5	540.5	540.5	0.0
5 Z(Est.)	.896	.898	.918	.928	0.000
6 TZ	484.5	485.5	496.1	501.5	0.0
7 GH/TZ	5.262	5.251	5.139	5.084	0.000
8 e ^s (Table XIV)	1.218	1.218	1.212	1.210	0.000
9 1-e ^{-s} (Table XIV)	.179	.179	.175	.174	0.000
10 Pt	763.2	748.2	594.2	518.2	0.0
11 Pt ² /1000	582.5	559.8	353.1	268.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.614	8.631	8.822	8.916	0.000
14 FcQm	3.980	5.300	6.777	7.829	0.000
15 L/H(FcQm) ²	15.844	28.094	45.923	61.299	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.837	5.022	8.047	10.638	0.000
17 Pw ² =Pt ² +Fw	585.3	564.8	361.1	279.2	0.0
18 Ps ² =e ^s Pw ²	713.0	687.8	437.8	337.8	0.0
19 Ps	844.4	829.3	661.7	581.2	0.0
20 P=(Pt+Ps)/2	803.8	788.8	627.9	549.7	0.0
21 Pr=(P/Pcr)	1.23	1.21	.96	.84	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.896	.898	.918	.928	0.000

Company	Yates Petroleum Corporation
Well	River Bridge UX St No. 1
Location	E, 2-9S-25E
County	Chaves
Date	09/04/87

