

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

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Form C-122

NOV 15 1984

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special				Test Date 8/7/84			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company			
Pool Pecos Slope Abo				Formation Abo			
Completion Date 3/26/83		Total Depth 4200.0'		Plug Back TD 4113.0'		Elevation 3642.6'	
Farm or Lease Name Sorenson "IB" Fed				Well No. 2			
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4190.0'	Perforations: From 3604.0' To 3847.0'		Unit Sec D 6	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3569.0'	Perforations: From 0.0' To 0.0'		Twp Rge 7S 26E	
Type Well Single				Facker Set At 3569.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 104 @ 3565'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
State New Mexico		L 3569.0'		H 3569.0'		Gg .639	
%CO2 .02		%N2 4.88		%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	69	1010	0	0	0	0 hrs.
1.	2.067	X 1.250	115	19.5	63	957	62	0	0	24 hrs.
2.	2.067	X 1.250	120	34.7	66	930	62	0	0	24 hrs.
3.	2.067	X 1.250	125	55.7	69	880	62	0	0	24 hrs.
4.	2.067	X 1.250	140	81.0	70	845	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.	8.134	50.00	128.20	.997	1.251	1.009	512
2.	8.134	67.99	133.20	.994	1.251	1.009	694
3.	8.134	87.74	138.20	.991	1.251	1.011	895
4.	8.134	111.40	153.20	.991	1.251	1.012	1136
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.	A.P.I. Gravity of Liquid Hydrocarbons Deg.	Specific Gravity Separator Gas xxxxxxx	Specific Gravity Flowing Fluid xxxxxxx	Critical Pressure PSIA	Critical Temperature °R
1.	.19	523	1.47	.982	0.000	662.6	.639	.639	662.6	355.2
2.	.20	526	1.48	.982						
3.	.21	529	1.49	.979						
4.	.23	530	1.49	.977						
5.	0.00	0	0.00	0.000						

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2	Pc2-Pw2	(2)	Pc2	Pc2-Pw2	n
1.	941.3	971.8	944.3	102.6	3.5580			2.6002		
2.	889.6	946.2	895.3	151.7						
3.	797.8	898.5	807.2	239.7						
4.	736.5	867.0	751.8	295.2						
5.	0.0	0.0	0.0	0.0						

Absolute Open Flow 2954 Mcfd @ 15.025				Angle of Slope, θ 37		Slope, n .753	
Remarks:							

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

Adopted 9-1-65

DATE 11/6/84

COMPANY Yates Petroleum Corporation LEASE Sorenson "IB " Fed WELL NO. 2

LOCATION: Unit D Section 6 Township 7S Range 26E

L 3569.0 H 3569.0 L/H 1.000 G .639 %CO₂ .02 %N₂ 4.88 %H₂S 0.00

d 1.995 Fr .017777 GH 2280.6 Pcr 662.6 Tcr 355.2

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.512	.694	.895	1.136	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.)	.866	.870	.876	.880	0.000
6 TZ	470.5	472.2	475.5	477.7	0.0
7 GH/TZ	4.847	4.830	4.796	4.774	0.000
8 e ^s (Table XIV)	1.199	1.198	1.197	1.196	0.000
9 1-e ^{-s} (Table XIV)	.166	.166	.165	.164	0.000
10 Pt	970.2	943.2	893.2	858.2	0.0
11 Pt ² /1000	941.3	889.6	797.8	736.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.364	8.401	8.458	8.498	0.000
14 FcQm	4.281	5.832	7.567	9.654	0.000
15 L/H(FcQm) ²	18.329	34.007	57.256	93.190	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.046	5.630	9.419	15.266	0.000
17 Pw ² =Pt ² +Fw	944.3	895.3	807.2	751.8	0.0
18 Ps ² =e ^s Pw ²	1132.6	1072.9	966.2	899.1	0.0
19 Ps	1064.2	1035.8	982.9	948.2	0.0
20 P=(Pt+Ps)/2	1017.2	989.5	938.1	903.2	0.0
21 Pr=(P/Pcr)	1.54	1.49	1.42	1.36	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.866	.870	.876	.880	0.000

Company	Yates Petroleum Corporation
Well	Sorenson "IB " Fed No. 2
Location	D, 6-7S-26E
County	Chaves
Date	11/6/84

