

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

Form C-122

RECEIVED

Type Test [X] Initial [] Annual [] Special					Test Date 5/7/83		JUL 05 1983	
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company			
Pool Pecos Slope <i>Abo</i>					Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 9/10/82		Total Depth 4100.0'		Plug Back TD 4032.0'		Elevation 3661.0'		Farm or Lease Name Sacra "SA"
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4095.0'	Perforations: From 3632.0' To 3764.0'		Well No. 4		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3617.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge P 35 6S 25E		
Type Well Single					Packer Set At 3617.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 103 @ 1030'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 3617.0'	H 3617.0'	Gg .642	%CO2 .25	%N2 4.86	%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	0	922	0	0	0	0 hrs.
1.	2.067	X 1.375	210	10.0	68	845	62	0	0	24 hrs.
2.	2.067	X 1.375	190	12.0	65	860	62	0	0	24 hrs.
3.	2.067	X 1.375	185	22.0	66	820	62	0	0	24 hrs.
4.	2.067	X 1.375	200	28.0	63	780	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.	10.204	47.24	223.20	.992	1.248	1.017	607
2.	10.204	49.38	203.20	.995	1.248	1.016	636
3.	10.204	66.03	198.20	.994	1.248	1.015	849
4.	10.204	77.26	213.20	.997	1.248	1.017	997
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.	.34	528	1.48	.967	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.31	525	1.48	.970	Specific Gravity Separator Gas	.642	xxxxxxx
3.	.30	526	1.48	.971	Specific Gravity Flowing Fluid	.642	xxxxxxx
4.	.32	523	1.47	.968	Critical Pressure	663.5 PSIA	663.5 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	355.8°R	355.8°R

Pc	935.2	Pc2	874.6
NO	Pt2	Pw	Pw2
1.	736.5	860.8	740.9
2.	762.5	876.0	767.3
3.	694.2	838.4	702.9
4.	629.2	800.8	641.2
5.	0.0	0.0	0.0

$$\frac{Pc^2}{Pc^2 - Pw^2} = 3.7897 \quad (2) \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2.1738$$

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2168 \text{ Mcfd}$$

Absolute Open Flow 2168 Mcfd @ 15.025 Angle of Slope, θ 30 Slope, n .583

Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
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Adopted 9-1-65

DATE 7/6/83

COMPANY Yates Petroleum Corporation LEASE Sacra "SA" WELL NO. 4

LOCATION: Unit P Section 35 Township 6S Range 25E

L 3617.0 H 3617.0 L/H 1.000 G .642 %CO₂ .25 %N₂ 4.86 %H₂S 0.00

d 1.995 Fr .017777 GH 2322.1 Pcr 663.5 Tcr 355.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.607	.636	.849	.997	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	563.0	563.0	563.0	563.0	0.0
4 T=(Tw+Ts)/2	542.5	542.5	542.5	542.5	0.0
5 Z(Est.)	.879	.877	.882	.887	0.000
6 TZ	476.9	475.8	478.5	481.3	0.0
7 GH/TZ	4.870	4.880	4.853	4.825	0.000
8 e ^s (Table XIV)	1.200	1.201	1.200	1.198	0.000
9 1-e ^{-s} (Table XIV)	.167	.167	.166	.166	0.000
10 Pt	858.2	873.2	833.2	793.2	0.0
11 Pt ² /1000	736.5	762.5	694.2	629.2	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.477	8.459	8.506	8.555	0.000
14 FcQm	5.147	5.376	7.219	8.534	0.000
15 L/H(FcQm) ²	26.493	28.904	52.118	72.822	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	4.422	4.834	8.671	12.053	0.000
17 Pw ² =Pt ² +Fw	740.9	767.3	702.9	641.2	0.0
18 Ps ² =e ^s Pw ²	889.4	921.4	843.2	768.4	0.0
19 Ps	943.1	959.9	918.2	876.6	0.0
20 P=(Pt+Ps)/2	900.6	916.6	875.7	834.9	0.0
21 Pr=(P/Pcr)	1.36	1.38	1.32	1.26	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.879	.877	.882	.887	0.000

Company	Yates Petroleum Corporation
Well	Sacra "SA" No. 4
Location	P, 35-6S-25E
County	Chaves
Date	7/6/83

