

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

c/sf File
Form C-122

RECEIVED

JUL 05 1983

Type Test [x] Initial [] Annual [] Special					Test Date 5/7/83			
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE	
Pool Pecos Slope					Formation Abo		Unit	
Completion Date 4/24/*82		Total Depth 4225.0'		Plug Back TD 4181.0'		Elevation 3890.2'		Farm or Lease Name Papalope "OI" State
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4225.0'	Perforations: From 3708.0' To 3872.0'		Well No. 3		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3653.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge C 16 7S 25E		
Type Well Single					Packer Set At 3653.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 104 @ 0'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 3653.0'	H 3653.0'	Gg .654	%CO2 .02	%N2 8.43	%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	0	960	0	0	0	0 hrs.
1.	2.067 X .875	160	7.0	62	850	62	0	0	24 hrs.
2.	2.067 X .875	145	21.0	75	720	62	0	0	24 hrs.
3.	2.067 X .875	120	42.0	75	490	62	0	0	24 hrs.
4.	2.067 X .875	120	25.0	75	320	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)	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpu	Rate of Flow Q, Mcfd
1.	3.729	34.82	173.20	.998	1.237	162
2.	3.729	57.64	158.20	.986	1.237	265
3.	3.729	74.80	133.20	.986	1.237	343
4.	3.729	57.71	133.20	.986	1.237	265
5.	0.000	0.00	0.00	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 0.000 Deg.	Specific Gravity Separator Gas .654	Specific Gravity Flowing Fluid .654	Critical Pressure 656.1 PSIA	Critical Temperature 350.2°R
1.	.26	522	1.49	.975						
2.	.24	535	1.53	.978						
3.	.20	535	1.53	.981						
4.	.20	535	1.53	.981						
5.	0.00	0	0.00	0.000						

Pc 973.2 Pc2 947.1

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	$\frac{Pc2}{Pc2-Pw2} = 1.4211$	(2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1.2401$
1.	745.1	863.4	745.4	201.7		
2.	537.6	733.8	538.5	408.6		
3.	253.2	504.7	254.8	692.4		
4.	111.0	334.6	112.0	835.2		
5.	0.0	0.0	0.0	0.0		

ROF = $Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 426 \text{ Mcfd}$

Absolute Open Flow 426 Mcfd @ 15.025 Angle of Slope, θ 31 Slope, n .612

Remarks:

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

DATE 7/5/83

COMPANY Yates Petroleum Corporation LEASE Papalope "OI" State WELL NO. 3LOCATION: Unit C Section 16 Township 7S Range 25EL 3653.0 H 3653.0 L/H 1.000 G .654 %CO₂ .02 %N₂ 8.43 %H₂S 0.00d 1.995 Fr .017777 GH 2389.1 Pcr 656.1 Tcr 350.2

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.162	.265	.343	.265	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.)	.885	.901	.931	.954	0.000
6 TZ	480.4	489.1	505.4	518.1	0.0
7 GH/TZ	4.973	4.885	4.727	4.611	0.000
8 e ^s (Table XIV)	1.205	1.201	1.194	1.189	0.000
9 1-e ^{-s} (Table XIV)	.170	.167	.162	.159	0.000
10 Pt	863.2	733.2	503.2	333.2	0.0
11 Pt ² /1000	745.1	537.6	253.2	111.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.546	8.699	8.986	9.211	0.000
14 FcQm	1.387	2.305	3.085	2.440	0.000
15 L/H(FcQm) ²	1.923	5.315	9.516	5.953	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.327	.889	1.546	.945	0.000
17 Pw ² =Pt ² +Fw	745.4	538.5	254.8	112.0	0.0
18 Ps ² =e ^s Pw ²	898.1	646.7	304.2	133.1	0.0
19 Ps	947.7	804.2	551.5	364.8	0.0
20 P=(Pt+Ps)/2	905.5	768.7	527.4	349.0	0.0
21 Pr=(P/Pcr)	1.38	1.17	.80	.53	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.885	.901	.931	.954	0.000

Company	Yates Petroleum Corporation
Well	Papalope "OI" State No. 3
Location	C, 16-7S-25E
County	Chaves
Date	7/5/83

