

c/s F. 1/2 Form C-122

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

RECEIVED BY

Type Test [x] Initial [] Annual [] Special						Test Date 4/10/84		JUN 08 1984 O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		Unit			
Pool Pecos Slope 2 Ap				Formation Abo					
Completion Date 2/12/83		Total Depth 4300.0'		Plug Back TD 4260.0'		Elevation 3630.4'		Farm or Lease Name Nickey "RF" Federal	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4300.0'	Perforations: From 3685.0' To 4176.0'		Well No. 2			
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3642.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge E 19 7S 26E			
Type Well Single				Packer Set At 3642.0'		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 106 @ 3640'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3642.0'	H 3642.0'	Gg .643	%CO2 .02	%N2 5.66	%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	1012	0	0	0	0 hrs.
1.	2.067	X 1.375	125	8.0	69	930	62	0	0	24 hrs.
2.	2.067	X 1.375	120	22.3	69	845	62	0	0	24 hrs.
3.	2.067	X 1.375	120	49.1	69	665	62	0	0	24 hrs.
4.	2.067	X 1.375	120	99.9	69	402	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)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	33.25	138.20	.991	1.247	1.011	424
2.	10.204	54.50	133.20	.991	1.247	1.010	695
3.	10.204	80.87	133.20	.991	1.247	1.010	1031
4.	10.204	115.35	133.20	.991	1.247	1.010	1470
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.	.21	529	1.49	.979	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.20	529	1.49	.980	Specific Gravity Separator Gas	.643	xxxxxxxxxxxxxx
3.	.20	529	1.49	.980	Specific Gravity Flowing Fluid	xxxxxx	.643
4.	.20	529	1.49	.980	Critical Pressure	661.1 PSIA	661.1 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	354.3°R	354.3°R

Pc 1025.2 Pc2 1051.0

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2 / (Pc2-Pw2)	(2) [Pc2 / (Pc2-Pw2)]^n
1.	889.6	944.3	891.8	159.2	1.2369	1.1709
2.	736.5	861.6	742.4	308.7		
3.	460.0	687.9	473.2	577.8		
4.	172.4	447.8	200.5	850.5		
5.	0.0	0.0	0.0	0.0		

AOF = Q [Pc2 / (Pc2-Pw2)]^n = 1722 Mcfd

Absolute Open Flow 1722 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .742

Remarks:

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

DATE 6/6/84

COMPANY Yates Petroleum Corporation LEASE Nickey "RF" Federal WELL NO. 2LOCATION: Unit E Section 19 Township 7S Range 26EL 3642.0 H 3642.0 L/H 1.000 G .643 %CO₂ .02 %N₂ 5.66 %H₂S 0.00d 1.995 Fr .017777 GH 2341.8 Pcr 661.1 Tcr 354.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.424	.695	1.031	1.470	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	566.0	566.0	566.0	566.0	0.0
4 T=(Tw+Ts)/2	544.0	544.0	544.0	544.0	0.0
5 Z(Est.)	.871	.882	.904	.939	0.000
6 TZ	474.1	479.7	492.0	510.8	0.0
7 GH/TZ	4.940	4.882	4.759	4.585	0.000
8 e ^s (Table XIV)	1.204	1.201	1.195	1.188	0.000
9 1-e ^{-s} (Table XIV)	.169	.167	.163	.158	0.000
10 Pt	943.2	858.2	678.2	415.2	0.0
11 Pt ² /1000	889.6	736.5	460.0	172.4	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.428	8.532	8.747	9.080	0.000
14 FcQm	3.573	5.927	9.016	13.350	0.000
15 L/H(FcQm) ²	12.767	35.130	81.286	178.227	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.159	5.874	13.287	28.153	0.000
17 Pw ² =Pt ² +Fw	891.8	742.4	473.2	200.5	0.0
18 Ps ² =e ^s Pw ²	1073.3	891.4	565.7	238.2	0.0
19 Ps	1036.0	944.2	752.1	488.0	0.0
20 P=(Pt+Ps)/2	989.6	901.2	715.2	451.6	0.0
21 Pr=(P/Pcr)	1.50	1.36	1.08	.68	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.871	.882	.904	.939	0.000

Company	Yates Petroleum Corporation
Well	Nickey "RF" Federal No. 2
Location	E, 19-7S-26E
County	Chaves
Date	6/6/84

