

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

Form C-122

451
File

RECEIVED

Type Test [x] Initial [] Annual [] Special						Test Date 11/2/89		DEC 26 '90	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company				O. C. D.	
Pool Abo				Formation Pecos Slope				Unit ARTESIA, OFFICE	
Completion Date 11/8/82		Total Depth 4300.0'		Plug Back TD 4260.0'		Elevation 3636.4'		Farm or Lease Name Andrew UU	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set Rt 4300.0'	Perforations: From 3923.0' To 3927.0'			Well No. 1		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set Rt 3885.0'	Perforations: From 0.0' To 0.0'			Unit Sec Twp Rge E 10 6S 26E		
Type Well Single				Packer Set Rt 3885.0'		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 98 @ 3885'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3885.0'	H 3885.0'	Gg .660	%CO2 .01	%N2 6.92	%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	57	730	0	0	0	0 hrs.
1.	2.067 X .500	130	31.6	65	405	62	0	0	24 hrs.
2.	2.067 X .500	130	34.6	59	301	62	0	0	24 hrs.
3.	2.067 X .500	140	40.2	57	252	62	0	0	24 hrs.
4.	2.067 X .500	140	48.0	60	140	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.	1.189	67.27	143.20	.995	1.231	1.010	99
2.	1.189	70.39	143.20	1.001	1.231	1.011	104
3.	1.189	78.48	153.20	1.003	1.231	1.012	117
4.	1.189	85.75	153.20	1.000	1.231	1.012	127
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.	.22	525	1.47	.979	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.22	519	1.46	.978	Specific Gravity Separator Gas .660
3.	.23	517	1.45	.976	Specific Gravity Flowing Fluid .660
4.	.23	520	1.46	.977	Critical Pressure 658.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 356.4°R

Pc 743.2	Pc ² 552.3
NO	Pt ² Pw Pw ² Pc ² -Pw ² (1) $\frac{Pc^2}{Pc^2-Pw^2} = 1.0338$ (2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 1.0244$
1.	174.9 418.4 175.0 377.3
2.	98.7 314.4 98.9 453.5
3.	70.3 265.6 70.5 481.8
4.	23.5 154.0 23.7 528.6
5.	0.0 0.0 0.0 0.0

ROF = Q $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = 130$ Mcfd

Absolute Open Flow 130 Mcfd @ 15.025 Angle of Slope, 0 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 12/17/90

COMPANY Yates Petroleum Corporation LEASE Andrew UU WELL NO. 1

LOCATION: Unit E Section 10 Township 6S Range 26E

L 3885.0 H 3885.0 L/H 1.000 G .660 %CO2 .01 %N2 6.92 %H2S 0.00

d 1.995 Fr .017777 GH 2564.1 Pcr 658.4 Tcr 356.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.099	.104	.117	.127	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	558.0	558.0	558.0	558.0	0.0
4 T=(Tw+Ts)/2	540.0	540.0	540.0	540.0	0.0
5 Z(Est.)	.938	.953	.961	.977	0.000
6 TZ	506.3	514.8	518.9	527.4	0.0
7 GH/TZ	5.065	4.981	4.941	4.862	0.000
8 e ^s (Table XIV)	1.209	1.205	1.204	1.200	0.000
9 1-e ^{-s} (Table XIV)	.173	.170	.169	.167	0.000
10 Pt	418.2	314.2	265.2	153.2	0.0
11 Pt ² /1000	174.9	98.7	70.3	23.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	9.001	9.153	9.225	9.376	0.000
14 FcQm	.891	.954	1.075	1.191	0.000
15 L/H(FcQm) ²	.794	.910	1.157	1.417	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.137	.155	.196	.236	0.000
17 Pw ² =Pt ² +Fw	175.0	98.9	70.5	23.7	0.0
18 Ps ² =e ^s Pw ²	211.6	119.2	84.9	28.4	0.0
19 Ps	460.0	345.2	291.3	168.7	0.0
20 P=(Pt+Ps)/2	439.1	329.7	278.3	160.9	0.0
21 Pr=(P/Pcr)	.67	.50	.42	.24	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.938	.953	.961	.977	0.000

Company	Yates Petroleum Corporation
Well	Andrew UU No. 1
Location	E, 10-6S-26E
County	Chaves
Date	12/17/90

$P_c^2 - P_w^2$, THOUSANDS

