

NE MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT ONE POINT BACK PRESSURE TEST FOR G. WELL

95F
30-005-632692
Form C-122
MAY 2001
RECEIVED
OCD - ARTESIA

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/30/2000	
Company Yates Petroleum Corp		Connection Agave Energy	
Pool North Fork Ranch Pre/Permian		Unit D	
Completion Date 10/17/2000	Total Depth 5850	Plug Back TD 5805	Elevation 3793
Farm or Lease Name PERCENTAGE APR		Well No. 1	
Csg. Size 5.500	Wt. 15.500	d 4.950	Set At 5850
Perforations: From 5630 To 5636		Well No. 1	
Tbg. Size 2.875	Wt. 6.400	d 2.441	Set At 5572
Perforations: From 5630 To 5636		Unit Sec. Twp Rge. O 3 8S 26E	
Type Well Single		Packer Set At 5580	
Producing Thru Tubing		Baro. Press. - Pa 24.0	
Resv. Temp. °F 116 @ 5575		Mean Temp. °F 62	
State New Mexico		County Chaves	
L 5850	H 5850	Gg 0.611	%CO ₂ 0.044
%N ₂ 2.341	%H ₂ S 0.000	Prover 0.000	Meter Run 4.000
Taps Flange			

FLOW DATA							TUBING DATA		CASING DATA		Duration
NO	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	of Flow
SI.	0.000	x	0.000	0	0.0	0	750	0			0
1.	4.026	x	1.250	165	143.0	60	610	62			24
2.	4.026	x	1.250	165	356.0	60	462	62			24
3.	4.026	x	1.250	165	549.0	60	313	62			24
4	4.026	x	1.250	165	684.0	60	165	62			24
5		x									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd
1.	7.469	164.4	189.0	1.0000	1.279	1.016	1595
2.	7.469	259.4	189.0	1.0000	1.279	1.016	2517
3.	7.469	322.1	189.0	1.0000	1.279	1.016	3126
4.	7.469	359.5	189.0	1.0000	1.279	1.016	3489
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	0	Mcft/bbl
1.	0.28	520	1.47	0.969	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	0.28	520	1.47	0.969	Specific Gravity Separator Gas	0.611	XXXXXXXXXX
3.	0.28	520	1.47	0.969	Specific Gravity Flowing Fluid	XXXXXXXXXX	0.611
4.	0.28	520	1.47	0.969	Critical Pressure	668 P.S.I.A.	668 P.S.I.A.
5.					Critical Temperature	353 °R	353 °R

NO.	Pc'	Pw	Pw'	Pc' - Pw'	(1) $\frac{Pc'}{Pc' - Pw'}$	(2) $\left[\frac{Pc'}{Pc' - Pw'} \right]^n$
1.	402.0	646.9	418.5	180.6	1.428	1.336
2.	236.2	527.4	278.1	320.9		
3.	113.6	423.7	179.6	419.5		
4.	35.7	345.6	119.4	479.6		
5.						

Absolute Open Flow	4175	Mcfd @ 15.025	Angle of Slope θ	39	Slope, n	0.812
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Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
		Dave Boneau	Katie Brunson

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 11/30/2000

COMPANY Yates Petroleum Corp LEASE PERCENTAGE APR WELL NO. 1

LOCATION: Unit O Section 3 Township 8S Range 26E

L 5850 H 5850 L/H 1.000 G 0.611 %CO₂ 0.044 %N₂ 2.341 %H₂S 0.000

d 2.441 Fr 0.010495 GH 3574.4 Pcr 667.9 Tcr 353.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.595	2.517	3.126	3.489	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	576	576	576	576	
4 T = (Tw+Ts) / 2	548.7	548.7	548.7	548.7	
5 Z (Est.)	0.912	0.929	0.946	0.961	
6 TZ	500.3	509.8	519.0	527.4	
7 GH / TZ	7.145	7.011	6.887	6.777	
8 e ^{As} (Table XIV)	1.307	1.301	1.295	1.289	
9 1-e ^{As} (Table XIV)	0.235	0.231	0.228	0.224	
10 Pt	634.0	486.0	337.0	189.0	
11 Pt ² / 1000	402.0	236.2	113.6	35.7	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	5.250	5.350	5.447	5.535	
14 FcQm	8.38	13.47	17.03	19.32	
15 L / H(FcQm) ²	70.2	181.4	290.0	373.1	
16 Fw = L / H(FcQm) ² (1-e ^{As})	16.50	41.94	65.99	83.72	
17 Pw ² = Pt ² +Fw	418.5	278.1	179.6	119.4	
18 Ps ² = e ^{As} Pw ²	547.0	361.8	232.5	154.0	
19 Ps	739.6	601.5	482.2	392.4	
20 P = (Pt+Ps) / 2	686.8	543.7	409.6	290.7	
21 Pr = (P / Pcr)	1.03	0.81	0.61	0.44	
22 Tr = (T / Tcr)	1.55	1.55	1.55	1.55	
23 Z (Table XI)	0.912	0.929	0.946	0.961	

Company
Well
Location
10^4

Yates Petroleum Corp
PERCENTAGE APR #1
O 3-8S-26E

County
Date

Chaves
11-30-2000

Q, Mcfd

10^3

Pc/Pwf

10^2

10^4

10^5

AOF = 4175

