

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 10/13/1999	
Company Yates Petroleum Corp				Connection Agave Energy		
Pool Pecos Slope Abo				Formation Abo <i>Pecos Slope Abo</i>		
Completion Date 8/13/1984		Total Depth 6290		Plug Back TD 4669		Elevation 3847
Csg. Size 5.500	Wt. 15.500	d 4.950	Set At 6290	Perforations From 4518 To 4532		Well No. 1
Tbg. Size 2.875	Wt. 6.500	d 2.441	Set At 4475	Perforations From 4518 To 4532		Unit Sec. Twp. Rge. N 10 8S 26E
Type Well Single				Packer Set At 4475		County Chaves
Producing Thru Tubing		Resv. Temp. °F 119 @ 6256		Mean Temp. °F 62		State New Mexico
L 6290	H 6290	Gg 0.640	%CO ₂ 4.750	%N ₂ 2.100	%H ₂ S 0.000	Prover 0.000
						Meter Run 2.000
						Taps Flange

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
SI.	0.000	x	0.000	0	0.0	0	230	0			0
1	2.067	x	1.000	200	2.0	60	220	60			24
2	2.067	x	1.000	200	4.0	60	213	60			24
3	2.067	x	1.000	200	7.0	60	207	60			24
4	2.067	x	1.000	200	10.0	60	200	60			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.	4.946	20.6	213.2	1.0000	1.250	1.018	130
2.	4.946	29.2	213.2	1.0000	1.250	1.018	184
3.	4.946	38.6	213.2	1.0000	1.250	1.018	243
4.	4.946	46.2	213.2	1.0000	1.250	1.018	290
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.31	520	1.46	0.966	0	
2.	0.31	520	1.46	0.966	0.000	
3.	0.31	520	1.46	0.966	0.640	XXXXXXXXXX
4.	0.31	520	1.46	0.966	0.640	0.640
5.						

NO.	Pc	Pw	Pw ²	Pc ² - Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} =$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n =$
1.	54.4	233.5	54.5	4.6	5.797	3.952
2.	51.2	226.8	51.4	7.7		
3.	48.5	221.2	48.9	10.2		
4.	45.5	214.7	46.1	13.0		
5.						

Absolute Open Flow		960	Mcf @ 15.025	Angle of Slope θ	38	Slope, n	0.782
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Remarks:			
Approved By Commission:		Conducted By:	Calculated By:
		Don Mayberry	Katie Brunson
			Checked By:
			Pinson McWhorter

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

DATE 10/13/1999

COMPANY Yates Petroleum Corp LEASE Horn YG Federal WELL NO. 1

LOCATION: Unit N Section 10 Township 8S Range 26E

L 6290 H 6290 L / H 1.000 G 0.640 %CO₂ 4.750 %N₂ 2.100 %H₂S 0.000

d 2.441 Fr 0.010495 GH 4025.6 Pcr 687.6 Tcr 355.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.130	0.184	0.243	0.290	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	579	579	579	579	
4 T = (Tw+Ts) / 2	549.2	549.2	549.2	549.2	
5 Z (Est.)	0.967	0.968	0.969	0.969	
6 TZ	530.9	531.4	531.9	532.4	
7 GH / TZ	7.582	7.575	7.569	7.561	
8 e ^s (Table XIV)	1.329	1.329	1.328	1.328	
9 1-e ^s (Table XIV)	0.247	0.247	0.247	0.247	
10 Pt	233.2	226.2	220.2	213.2	
11 Pt ² / 1000	54.4	51.2	48.5	45.5	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	5.572	5.577	5.582	5.587	
14 FcQm	0.72	1.02	1.36	1.62	
15 L / H(FcQm) ²	0.5	1.0	1.8	2.6	
16 Fw = L / H(FcQm) ² (1-e ^s)	0.13	0.26	0.45	0.65	
17 Pw ² = Pt ² +Fw	54.5	51.4	48.9	46.1	
18 Ps ² = e ^s Pw ²	72.4	68.3	65.0	61.2	
19 Ps	269.1	261.4	255.0	247.4	
20 P = (Pt+Ps) / 2	251.2	243.8	237.6	230.3	
21 Pr = (P / Pcr)	0.37	0.35	0.35	0.33	
22 Tr = (T / Tcr)	1.55	1.55	1.55	1.55	
23 Z (Table XI)	0.967	0.968	0.969	0.969	

Company Yates Petroleum Corp
Well Horn YG Federal #1
Location N 10-8S-26E

County Chaves
Date 10-13-1999

