

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

Form C-122

951

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 01/24/2000				
Company Yates Petroleum Corp					Connection Agave Energy Company				
Pool Pecos Slope					Formation Abo				
Completion Date 01/05/2000			Total Depth 4120		Plug Back TD 4074		Elevation 3699		
Csg. Size	Wt.	d	Set At	Perforations:			Farm or Lease Name		
4.500	10.500	4.052	4120	From	3712	To	3909	Jamie Com	
Tbg. Size	Wt.	d	Set At	Perforations:			Unit	Sec.	Twp.
2.375	4.700	1.990	3702	From	3712	To	3909	1	33
Type Well Single					Packer Set At 3702		County Chaves		
Producing Thru Tubing		Resv. Temp. °F 100 @ 4100		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L	H	Gg	%CO ₂	%N ₂	%H ₂ S	Prover	Meter Run	Taps	
4120	4120	0.670	0.011	0.200	0.000	0.000	2.000	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	of Flow
Sl.	0.000	x	0.000	0	0.0	0	520	0			0
1.	2.067	x	0.750	140	25.0	60	210	60			24
2.	2.067	x	0.750	140	27.0	60	187	60			24
3.	2.067	x	0.750	140	28.0	60	163	60			24
4.	2.067	x	0.750	140	30.0	60	140	60			24
5.		x									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{hwP_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	2.709	61.9	153.2	1.0000	1.222	1.016	208
2.	2.709	64.3	153.2	1.0000	1.222	1.016	216
3.	2.709	65.5	153.2	1.0000	1.222	1.016	220
4.	2.709	67.8	153.2	1.0000	1.222	1.016	228
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	0	Mcf/bbl.
1.	0.23	520	1.37	0.969	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	0.23	520	1.37	0.969	Specific Gravity Separator Gas	0.670	XXXXXXXXXX
3.	0.23	520	1.37	0.969	Specific Gravity Flowing Fluid	XXXXXXXXXX	0.670
4.	0.23	520	1.37	0.969	Critical Pressure	669	P.S.I.A. 669
5.					Critical Temperature	379	°R 379

P _c	533.2	P _c ²	284.3
NO.	P _r ²	P _w	P _w ²
1.	49.8	224.7	50.5
2.	40.1	202.0	40.8
3.	31.0	178.3	31.8
4.	23.5	155.8	24.3
5.			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.168$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 247$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.142$

Absolute Open Flow	247	Mcf/d @ 15.025	Angle of Slope θ	41	Slope, n	0.855
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Remarks:

Approved By Commission:	Conducted By: Don McCampbell	Calculated By: Katie Brunson	Checked By:
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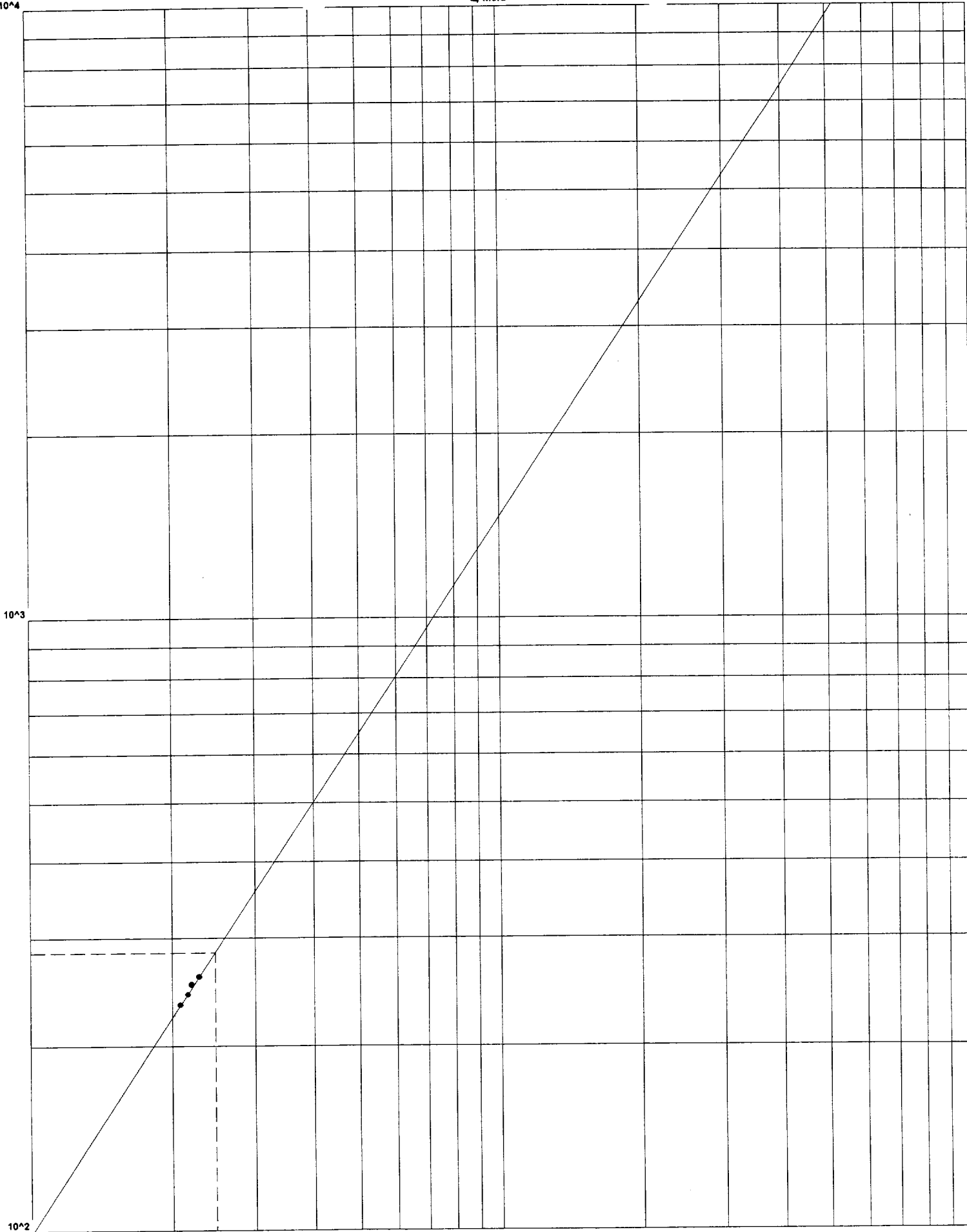
Company
Well
Location

Texas Petroleum Corp
Jamie Com #2
33-5S-25E

County
Date

Chaves
01-24-2000

Q, Mcfd



10^3
AOF = 247

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

DATE 01/24/2000

COMPANY Yates Petroleum Corp LEASE Jamie Com WELL NO. 2

LOCATION: Unit I Section 33 Township 5S Range 25E

L 4120 H 4120 L/H 1.000 G 0.670 %CO₂ 0.011 %N₂ 0.200 %H₂S 0.000

d 1.990 Fr 0.017894 GH 2760.4 Pcr 669.3 Tcr 378.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.208	0.216	0.220	0.228	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	560	560	560	560	
4 T = (Tw+Ts) / 2	539.7	539.7	539.7	539.7	
5 Z (Est.)	0.958	0.962	0.966	0.971	
6 TZ	516.8	519.1	521.5	523.8	
7 GH / TZ	5.342	5.318	5.293	5.270	
8 e ^s (Table XIV)	1.222	1.221	1.220	1.218	
9 1-e ^s (Table XIV)	0.182	0.181	0.180	0.179	
10 Pt	223.2	200.2	176.2	153.2	
11 Pt ² / 1000	49.8	40.1	31.0	23.5	
12 Fr (Table XV)	0.017894	0.017894	0.017894	0.017894	
13 Fc = FrTZ	9.247	9.288	9.332	9.373	
14 FcQm	1.92	2.01	2.06	2.14	
15 L / H(FcQm) ²	3.7	4.0	4.2	4.6	
16 Fw = L / H(FcQm) ² (1-e ^s)	0.67	0.73	0.76	0.82	
17 Pw ² = Pt ² +Fw	50.5	40.8	31.8	24.3	
18 Ps ² = e ^s Pw ²	61.7	49.8	38.8	29.6	
19 Ps	248.4	223.2	197.0	172.0	
20 P = (Pt+Ps) / 2	235.8	211.7	186.6	162.6	
21 Pr = (P / Pcr)	0.35	0.32	0.28	0.24	
22 Tr = (T / Tcr)	1.43	1.43	1.43	1.43	
23 Z (Table XI)	0.958	0.962	0.966	0.971	