

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

Form C-122

clst
File

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10/10/88			
Company Yates Petroleum Corp				Connection Transwestern Pipeline				JAN 06 '95	
Pool Pre-Permian				Formation Foor Ranch				Unit O. C. D.	
Completion Date 10/08/88		Total Depth 6229		Plug Back TD 6188		Elevation 3802		Farm or Lease Name Witz VN State	
Csg Size 5.500	Wt. 14.000	d 5.012	Set At 6229	Perforations: From 6012 To 6102		Well No. 2			
Tbg Size 2.875	Wt. 6.500	d 2.441	Set At 5948	Perforations: From 6012 To 6102		Unit A	Sec 26	Twp 9S	Rge 26E
Type Well Single				Packer Set At 5948		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 138 @ 6087		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 5948	H 5948	Gg 0.643	%CO ₂ 0.020	%N ₂ 5.300	%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	1520	0			0
1.	2.067	x	1.000	415	5.0	63	1227	62			24
2.	2.067	x	1.000	375	9.9	60	957	62			24
3.	2.067	x	1.000	420	17.1	58	687	62			24
4.	2.067	x	1.000	417	21.0	55	417	62			24
5.		x									

NO.	Coefficient (24 Hour)	$\sqrt{hwP_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress Factor. F _{pv}	Rate of Flow
							Q, Mcfd
1	4.946	46.1	428.1	0.9971	1.247	1.037	294
2	4.946	61.9	387.9	1.0000	1.247	1.034	395
3	4.946	86.1	433.0	1.0019	1.247	1.038	552
4	4.946	95.0	430.2	1.0048	1.247	1.039	612
5							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio		Rate of Flow Q, Mcfd
						Mcf/bbl.	
					0		
					0.000		Deg
1	0.65	523	1.47	0.931	0.643	xxxxxxx	
2	0.59	520	1.46	0.936	xxxxxxx	0.643	
3	0.65	518	1.46	0.927	662	662	PSIA
4	0.65	515	1.45	0.926	355	355	R
5							

P _c 1533.2	P _c 2350.7		
NO	P _t	P _w	P _w ²
1	1538.1	1240.4	1538.7
2	941.3	970.7	942.3
3	490.3	701.7	492.4
4	185.1	433.4	187.8
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.265$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.193$	
AOF = Q		$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 659$	

Absolute Open Flow 659	Mcf/d @ 15.025	Angle of Slope 0 37	Slope, n 0.752
Remarks			
Approved By Commission:	Conducted By: David Weaver	Calculated By: Andrea Carpenter	Checked By:

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

DATE 10/10/88

COMPANY Yates Petroleum Corp LEASE Witz VN State WELL NO. 2

LOCATION: Unit A Section 26 Township 9S Range 26E

L 5948 H 5948 L/H 1.000 G 0.643 %CO₂ 0.020 %N₂ 5.300 %H₂S 0.000

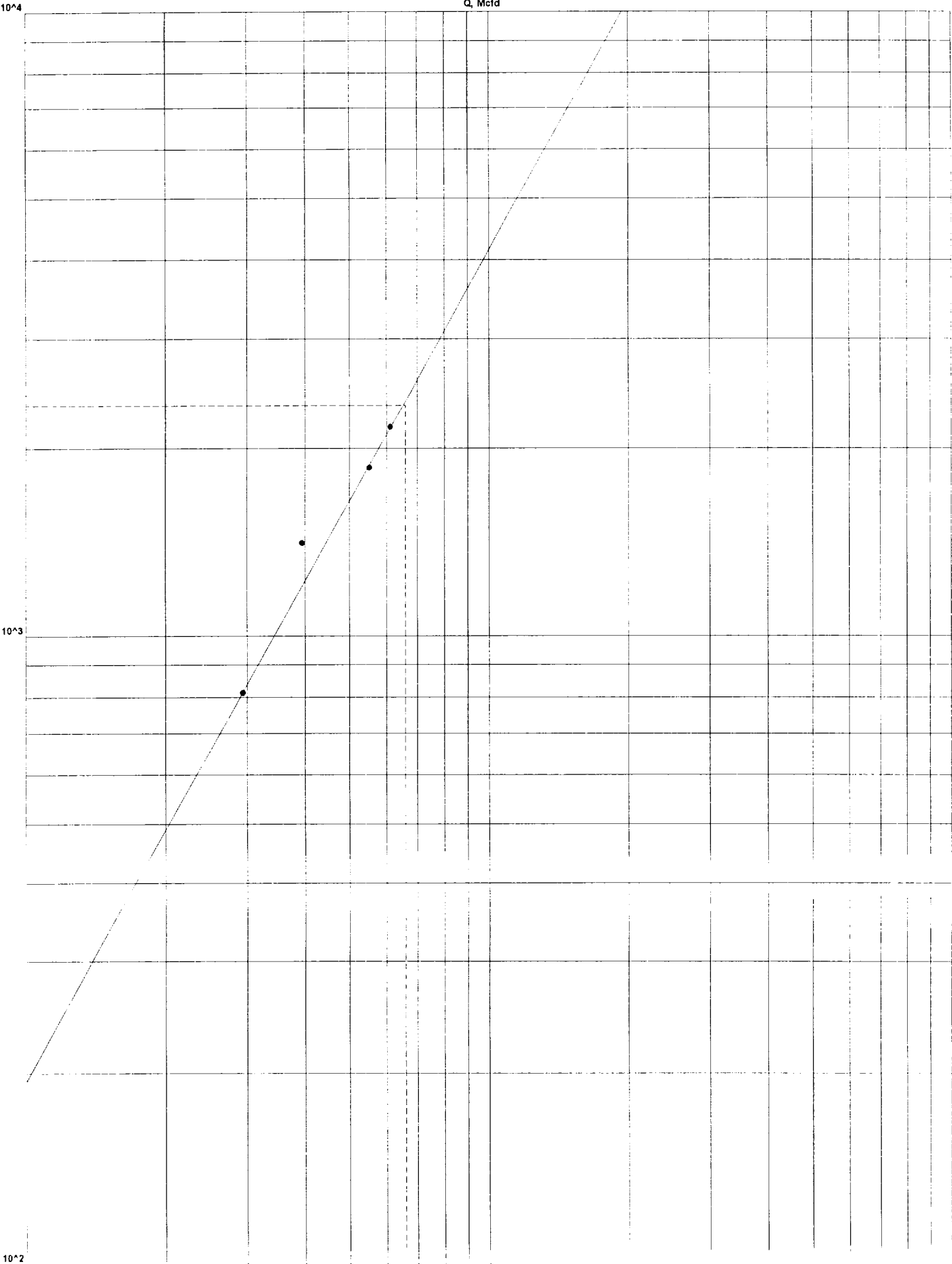
d 2.441 Fr 0.010495 GH 3824.6 P_{cr} 661.7 T_{cr} 355.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.294	0.395	0.552	0.612	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	598	598	598	598	
4 T = (Tw+Ts) / 2	559.7	559.7	559.7	559.7	
5 Z (Est.)	0.851	0.877	0.908	0.942	
6 TZ	476.3	491.0	508.1	527.0	
7 GH / TZ	8.030	7.790	7.527	7.258	
8 e ^{As} (Table XIV)	1.351	1.339	1.326	1.313	
9 1-e ^{As} (Table XIV)	0.260	0.253	0.246	0.238	
10 Pt	1240.2	970.2	700.2	430.2	
11 Pt ² / 1000	1538.1	941.3	490.3	185.1	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.998	5.153	5.332	5.530	
14 FcQm	1.47	2.03	2.95	3.39	
15 L / H(FcQm) ²	2.2	4.1	8.7	11.5	
16 Fw = L / H(FcQm) ² (1-e ^{As})	0.56	1.05	2.13	2.73	
17 Pw ² = Pt ² +Fw	1538.7	942.3	492.4	187.8	
18 Ps ² = e ^{As} Pw ²	2079.3	1262.0	653.0	246.6	
19 Ps	1442.0	1123.4	808.1	496.5	
20 P = (Pt+Ps) / 2	1341.1	1046.8	754.1	463.4	
21 Pr = (P / Pcr)	2.03	1.58	1.14	0.70	
22 Tr = (T / Tcr)	1.58	1.58	1.58	1.58	
23 Z (Table XI)	0.851	0.877	0.908	0.942	

Company Yates Petroleum Corp
Well Witz VN State #2
Location A 26-9S-26E

County Chaves
Date 10-10-88

Q, Mcfd



AGE - 550

PC-Pwf