

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

Form C-122

015F
File

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 08/04/1988			
Company Yates Petroleum Corp				Connection Transwestern Pipeline Co			
Pool Ordovician				Formation Four Ranch			
Completion Date 08/03/1988		Total Depth 6300		Plug Back TD 6246		Elevation 3810	
Farm or Lease Name Enron AEY State #1				Well No 1			
Csg Size 5.500	Wt 15.500	d 4.950	Set At 6300	Perforations From 5920 To 6030		Unit Sec Twp Rge K 25 9S 26E	
Tbg Size 2.875	Wt 6.500	d 2.441	Set At 5825	Perforations From 5920 To 6030		Unit Sec Twp Rge K 25 9S 26E	
Type Well Single				Packer Set At 5825		County Chaves	
Producing Thru Tubing		Resv Temp °F 121 @ 5975		Mean Temp °F 62		Baro Press - Pa 24.0	
State New Mexico				Meter Run 2.000			
L 5825	H 5825	Gg 0.645	%CO ₂ 1.519	%N ₂ 0.967	%H ₂ S 1.176	Prover 0.000	Taps Flange

NO	FLOW DATA				TUBING DATA				CASING DATA		Duration of Flow
	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	1400	0			0
1	2.067	x	1.375	1200	10.0	97	1360	62			24
2	2.067	x	1.375	1076	30.5	98	1307	62			24
3	2.067	x	1.375	1200	64.0	99	1253	62			24
4	2.067	x	1.375	1200	99.0	96	1200	62			24
5		x									

NO	Coefficient (24 Hour)	\sqrt{hwPm}	Pressure Pm	Flow Temp Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
2	10.200	183.2	1100.4	0.9653	1.245	1.081	2427
3	10.200	279.9	1224.0	0.9645	1.245	1.088	3731
4	10.200	348.1	1224.0	0.9671	1.245	1.090	4662
5							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio		Mcf/bbl
					A P 1 Gravity of Liquid Hydrocarbons	Deg	
1	1.79	557	1.52	0.842	0.000	0.645	XXXXXXXXXX
2	1.61	558	1.52	0.856	0.645	XXXXXXXXXX	0.645
3	1.79	559	1.52	0.844	683	P.S.I.A.	683 P.S.I.A.
4	1.79	556	1.51	0.841	367	°R	367 °R
5							

Pc	1424.0	Pc'	2027.8	(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 6.470$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 4.623$
NO	Pt'	Pw	Pw'	Pc' - Pw'	
1	1915.5	1388.7	1928.4	99.3	
2	1771.6	1344.1	1806.7	221.0	
3	1630.7	1309.3	1714.4	313.4	
4	1498.2	1276.6	1629.6	398.2	
5					

Absolute Open Flow 17249 Mcfd @ 15.025 Angle of Slope 0 39 Slope, n 0.820

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 08/04/1988

COMPANY Yates Petroleum Corp LEASE Enron AEY State #1 WELL NO. 1
 LOCATION: Unit K Section 25 Township 9S Range 26E
 L 5825 H 5825 L/H 1.000 G 0.645 %CO₂ 1.519 %N₂ 0.967 %H₂S 1.176
 d 2.441 Fr 0.010495 GH 3757.1 Pcr 683.0 Tcr 367.1

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.479	2.427	3.731	4.662	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	581	581	581	581	
4 T = (Tw+Ts) / 2	551.2	551.2	551.2	551.2	
5 Z (Est.)	0.809	0.813	0.818	0.822	
6 TZ	445.8	448.4	450.8	453.2	
7 GH / TZ	8.428	8.380	8.334	8.290	
8 e ^{As} (Table XIV)	1.371	1.369	1.367	1.365	
9 1-e ^{-s} (Table XIV)	0.271	0.270	0.268	0.267	
10 Pt	1384.0	1331.0	1277.0	1224.0	
11 Pt ² / 1000	1915.5	1771.6	1630.7	1498.2	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.678	4.705	4.731	4.757	
14 FcQm	6.92	11.42	17.65	22.17	
15 L / H(FcQm) ²	47.9	130.4	311.5	491.7	
16 Fw = L / H(FcQm) ² (1-e ^{-s})	12.99	35.17	83.65	131.40	
17 Pw ² = Pt ² +Fw	1928.4	1806.7	1714.4	1629.6	
18 Ps ² = e ^{As} Pw ²	2644.8	2473.8	2343.1	2223.6	
19 Ps	1626.3	1572.8	1530.7	1491.2	
20 P = (Pt+Ps) / 2	1505.1	1451.9	1403.9	1357.6	
21 Pr = (P / Pcr)	2.20	2.13	2.06	1.99	
22 Tr = (T / Tcr)	1.50	1.50	1.50	1.50	
23 Z (Table XI)	0.809	0.813	0.818	0.822	

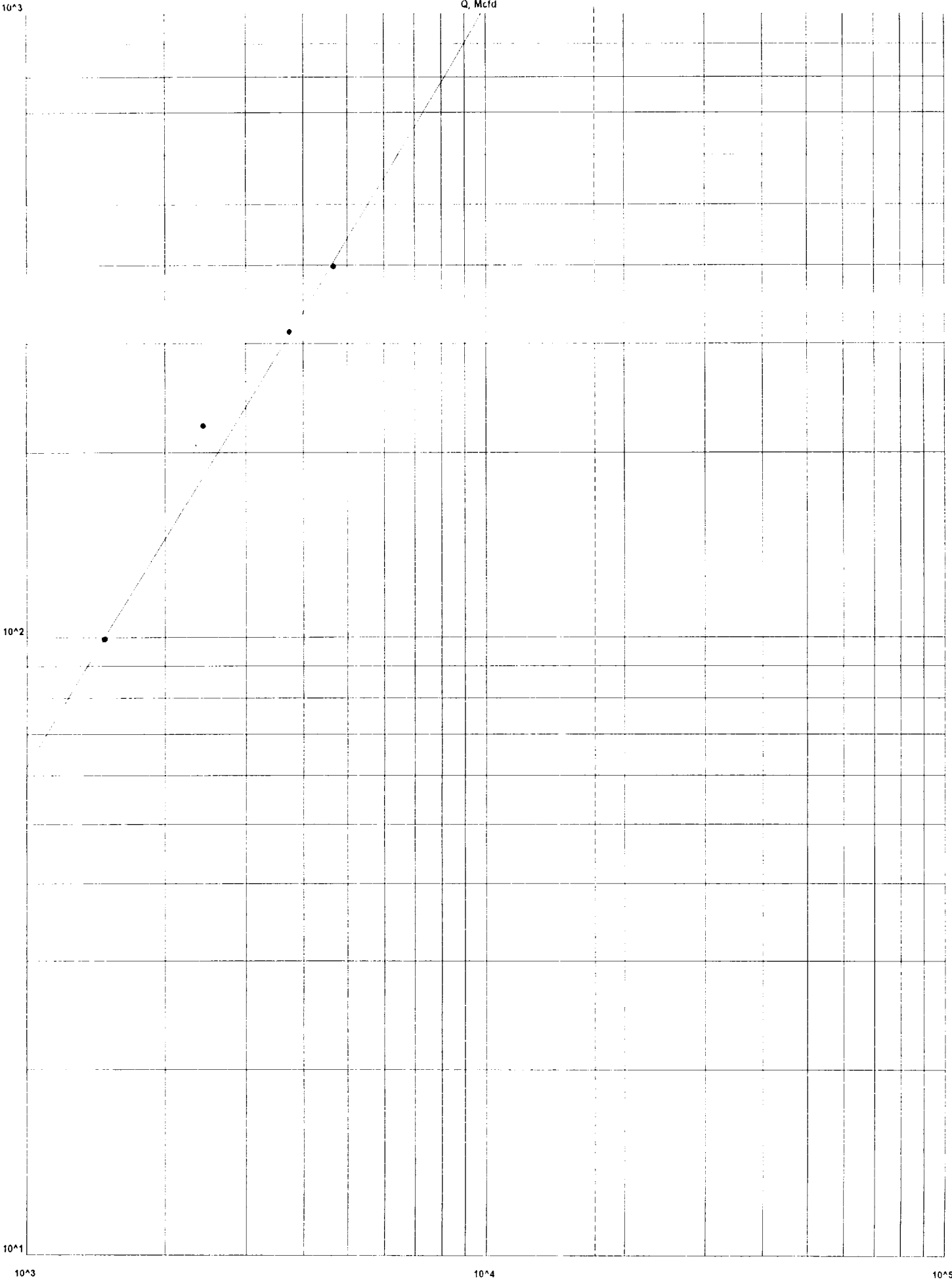
Company
No
Location

Yates Petroleum Corp
Enron AEY State #1 #1
N 21 88 288

County
Date

Chaves
08-04-1988

Q, Mcfd



Pc-Pwf

10^3

10^4

10^5