

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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TREASURER

Oil Conservation Division
1625 N. French Dr.
Hobbs, N.M. 88240

Re: R.L. Burns ATL #1
Lea County, NM

Attached please find the initial deliverability test required by order # - R-11310.

Sincerely,

Pinson McWhorter
Operation Mgr.



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

Form C-122

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 6/15/2000			
Company Yates Petroleum Corp				Connection Agave Energy Company					
Pool Townsend				Formation Morrow				Unit	
Completion Date 6/16/2000		Total Depth 12593		Plug Back TD 12535		Elevation 3985		Farm or Lease Name R. L. Burns ATL	
Csg. Size 5.500	Wt. 17.000	d 4.892	Set At 12593	Perforations: From 12203 To 12211		Well No. 1			
Tbg. Size 2.875	Wt. 6.500	d 2.441	Set At 12061	Perforations: From 12203 To 12211		Unit P	Sec. 11	Twp. 16S	Rge. 35E
Type Well Single				Packer Set At 12061		County Lea			
Producing Thru Tubing		Resv. Temp. °F 183 @ 12207		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 12593	H 12593	Gg 0.661	%CO ₂ 0.437	%N ₂ 0.372	%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
Sl.	0.000	x	0.000	0	0.0	0	3750	0			0
1.	2.067	x	1.250	875	30.0	60	3360	60			24
2.	2.067	x	1.250	875	75.0	60	2940	60			24
3.	2.067	x	1.250	875	120.0	60	2550	60			24
4.	2.067	x	1.250	875	165.0	60	2140	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.	8.120	163.2	888.2	1.0000	1.230	1.098	1790
2.	8.120	258.1	888.2	1.0000	1.230	1.098	2830
3.	8.120	326.5	888.2	1.0000	1.230	1.098	3580
4.	8.120	382.8	888.2	1.0000	1.230	1.098	4198
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio 29	Mcf/bbl
					A.P.I. Gravity of Liquid Hydrocarbons 54.000	Deg.
1.	1.32	520	1.39	0.830	Specific Gravity Separator Gas 0.661	XXXXXXXXXX
2.	1.32	520	1.39	0.830	Specific Gravity Flowing Fluid XXXXXXXXXX	0.761
3.	1.32	520	1.39	0.830	Critical Pressure 671	P.S.I.A. 668 P.S.I.A.
4.	1.32	520	1.39	0.830	Critical Temperature 374	°R 407 °R
5.						

Pc	3763.2	Pc²	14161.7
NO.	Pi²	Pw	Pw²
1.	11378.5	3379.8	11423.0
2.	8721.4	2970.7	8824.8
3.	6570.0	2593.3	6725.2
4.	4636.3	2199.6	4838.2
5.			

(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 1.904$

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 5645$

(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1577$

Absolute Open Flow 5645	Mcf/d @ 15.025	Angle of Slope θ 35	0.707
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Remarks:

Approved By Commission:	Conducted By: Mike Allen	Calculated By: Susan Herpin	Checked By: Dave Boneau
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 6/15/2000

COMPANY Yates Petroleum Corp LEASE R. L. Burns ATL WELL NO. 1

LOCATION: Unit P Section 11 Township 16S Range 35E

L 12593 H 12593 L/H 1.000 G 0.761 %CO₂ 0.437 %N₂ 0.372 %H₂S 0.000

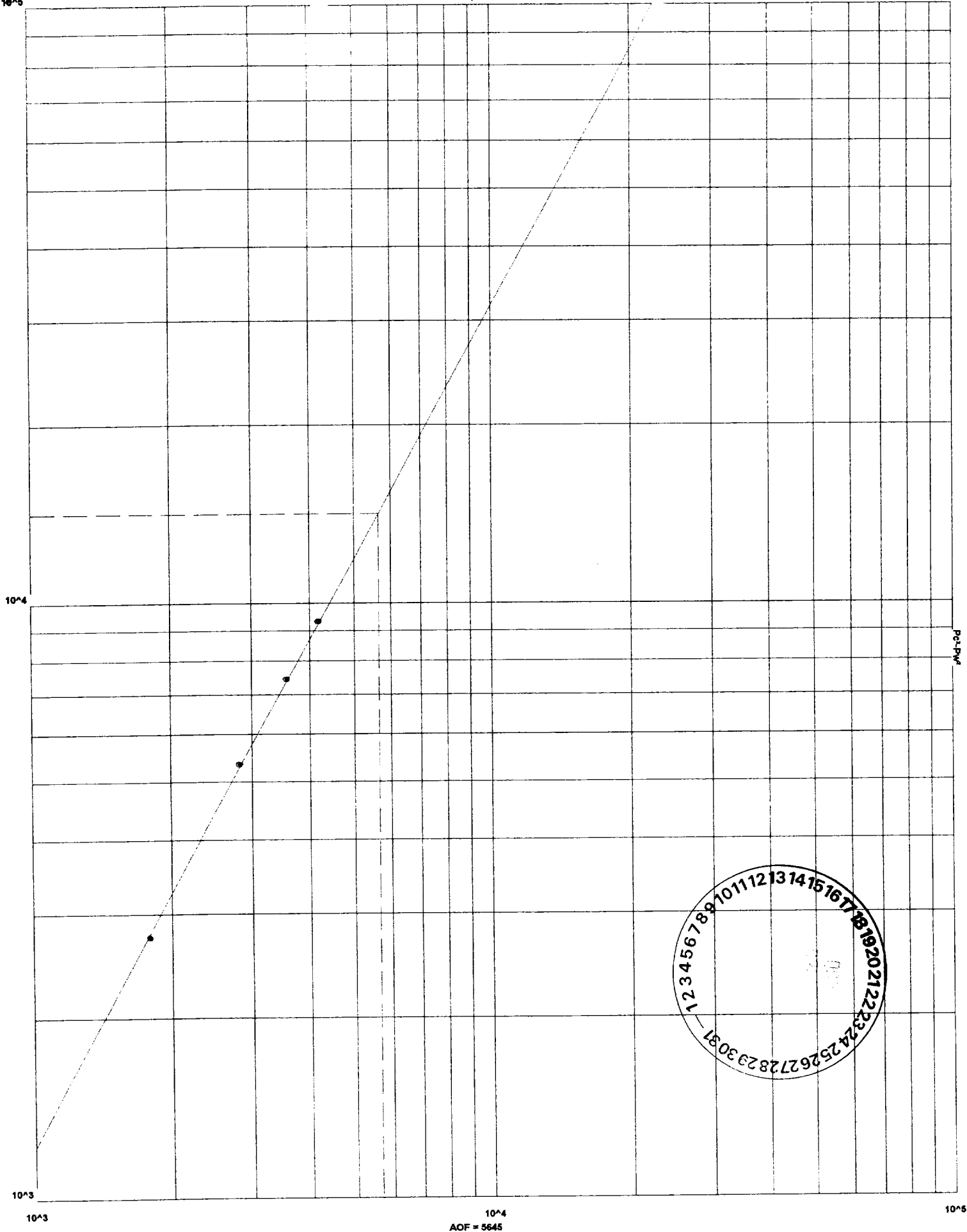
d 2.441 Fr 0.010495 GH 9583.3 Pcr 667.6 Tcr 407.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.790	2.830	3.580	4.198	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	643	643	643	643	
4 T = (Tw+Ts) / 2	581.2	581.2	581.2	581.2	
5 Z (Est.)	0.850	0.805	0.767	0.736	
6 TZ	494.1	467.6	445.6	427.7	
7 GH / TZ	19.397	20.497	21.508	22.404	
8 e ^{As} (Table XIV)	2.070	2.157	2.239	2.316	
9 1-e ^{-s} (Table XIV)	0.517	0.536	0.553	0.568	
10 Pt	3373.2	2953.2	2563.2	2153.2	
11 Pt ² / 1000	11378.5	8721.4	6570.0	4636.3	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	5.185	4.907	4.676	4.489	
14 FcQm	9.28	13.89	16.74	18.84	
15 L / H(FcQm) ²	86.1	192.9	280.2	355.1	
16 Fw = L / H(FcQm) ² (1-e ^{-s})	44.50	103.44	155.24	201.89	
17 Pw ² = Pt ² +Fw	11423.0	8824.8	6725.2	4838.2	
18 Ps ² = e ^{As} Pw ²	23647.2	19033.3	15059.9	1206.8	
19 Ps	4862.8	4362.7	3880.7	347.7	
20 P = (Pt+Ps) / 2	4118.0	3658.0	3222.0	2750.4	
21 Pr = (P / Pcr)	6.17	5.48	4.83	4.12	
22 Tr = (T / Tcr)	1.43	1.43	1.43	1.43	
23 Z (Table XI)	0.850	0.805	0.767	0.736	

Company Yates Petroleum Corp
 Well R. L. Burns ATL #1
 Location P 11-16S-35E

County Lea
 Date 6-15-2000

Q, Mcfd



AOF = 5645

