New Mexico Oil Conservation Commission

Form C-122-C

DELIVERABILITY TEST REPORT

30-025-24559

Operator: Yates Petroleum Corporation						Lease or Unit Name: RL Burns ATL			
Type Test: ☐ Initial ☐ Annual X☐ Special						Test Date: 12/29/04		Well No.: 1	
Completion Date: 6/16/2000		Total Depth: 12593'		Plug Back TD: 12225'		Elevation: 3985'		Unit Ltr. - Sec. - TWP - Rge.: P 11 16S 35E	
Csg. Size: 5.500	Wt.: 17.00	d: 4.892	Set At: 12593'	Perforations: From: 12204' To: 12211'				County: Lea	
Thg. Size: 2.875	Wt.: 6.500	d: 2.441	Set At: 11700'	Perforations: From: To:				Pool: North Shoebar Atoka Gas and Townsend Morrow	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 11700'				Formation: Atoka and Morrow	
Producing Thru: Tubing	Reservoir Temp. °F: 187		Mean Annual Temp. °F: 60	Baro. Press - P_a: 13.2				Connection: Agave Energy Company	
L: 11700'	H: 12004'	Gg: 0.689	%CO_2: 0.635	%N_2: 0.976	%H_2S: 0.000	Prover: 0.000		Meter Run: 4.029	Taps: Flange

	FLOW DATA				TUBING DATA		CASING DATA		
No.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration Of Flow
SI	0.000 X 0.000	0	0.0	0	600	60			
1.	4.026 X 0.625	54.3	452.3	85.5	216	60			2 hr.

RATE OF FLOW CALCULATIONS

No.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F pv.	Rate of Flow Q, Mcfd
1.	1.845	174.7	67.5	0.9759	1.205	1.006	381

No.	P_r	Temp. °R	T_r	Z
1.	0.1004	546	1.432	0.988

P_d 42

P_d^2 1.764

P_c 613.2 P_c^2 376.0

P_f P_f^2

Gas Liquid Hydrocarbon Ratio N/A Mcf/bbl.

A. P. I. Gravity of Liquid Hydrocarbons 60.0 Deg.

Specific Gravity Separator Gas 0.689 XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX N/A

Critical Pressure 672 P.S.I.A. N/A P.S.I.A.

Critical Temperature 384 R. N/A R

No.	P_t	P_t^2	$P_c^2 - P_t^2$	P_w	P_w^2	$P_c^2 - P_w^2$	P_s	P_s^2	$P_f^2 - P_s^2$
1.				233.9	54.73	321.3			

$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right] = \left[\frac{374.3}{321.3}\right] = 1.165$

Log $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right] = 0.066309$

$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 1.117$

n Log $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right] = 0.04804$

RECEIVED JAN 2005 Hobbs OCD

Deliv. = Q $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n$ = (381) (1.117)

Deliv. 426 Mcfd

n 0.7245

Previous back-pressure test

Commission

Company George Freeman

Others

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

DATE 12/29/2004

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

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

L 11700 H 12004 L/H 0.974 G 0.689 %CO2 0.635 %N2 0.976 %H2S 0.000

d 2.441 Fr 0.010763 GH 8271 Pcr 672 Tcr 381

LINE	1st Trial	2nd Trial	3rd Trial	4th Trial	5th Trial
1 Qm	381	381			
2 Tw(W.H.°R)	520	520			
3 Ts(B.H.°R)	647	647			
4 T = (Tw + Ts) / 2	583.5	583.5			
5 Z (Est.)	0.962	0.961			
6 TZ	561.1	560.6			
7 GH / TZ	14.74	14.75			
8 e^s(Table XIV)	1.738	1.739			
9 1-e^-s(Table XIV)	0.425	0.425			
10 Pt	229.2	229.2			
11 Pt^2 / 1000	52.53	52.53			
12 Fr (Table XV)	0.010763	0.010763			
13 Fc = FrTZ	6.039	6.034			
14 FcQm	2.304	2.302			
15 L / H$(FcQm)^2$	5.173	5.164			
16 Fw = L/H$(FcQm)^2$(1-e^-s)	2.197	2.194			
17 $Pw^2 = Pt^2 + Fw$	54.73	54.73			
18 Ps^2 = e^sPw^2	95.12	95.16			
19 Ps	308.4	308.5			
20 P = (Pt + Ps) / 2	268.8	268.8			
21 Pr = (P / Pcr)	0.400	0.400			
22 Tr = (T / Tcr)	1.520	1.520			
23 Z (Table XI)	0.961	0.961			