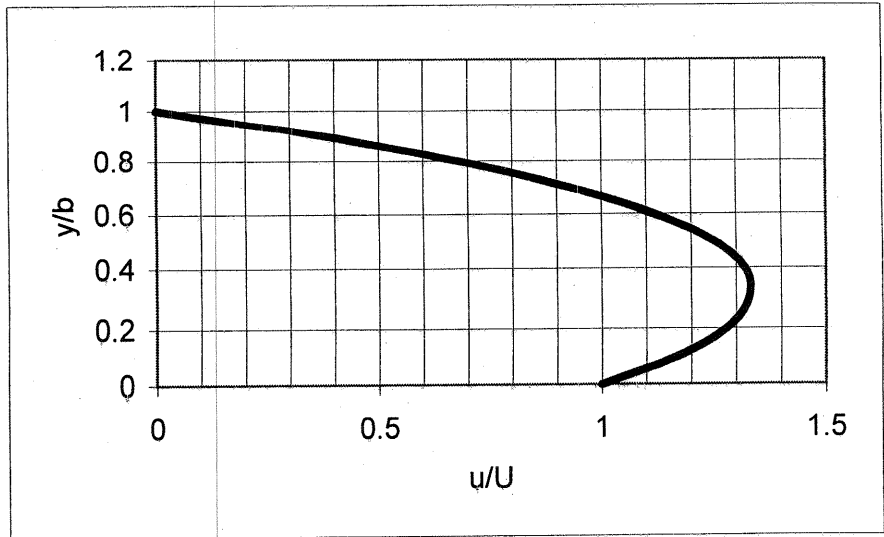


6.82

(cont)

u/U	y/b
1	0
1.17	0.1
1.28	0.2
1.33	0.3
1.32	0.4
1.25	0.5
1.12	0.6
0.93	0.7
0.68	0.8
0.37	0.9
0	1

Calculated
 from Eq. (2)
 with P = 3.



To determine where the maximum velocity occurs differentiate Eq. (2) and set equal to zero. Thus,

$$\frac{d(u/b)}{dy} = -P \left[2 \left(\frac{y}{b^2} \right) - \frac{1}{b} \right] - \frac{1}{b} = 0$$

and with $P = 3$

$$\frac{d(u/b)}{dy} = -3 \left[\frac{1}{b} \left(2 \frac{y}{b} - 1 \right) \right] - \frac{1}{b} = 0$$

so that

$$\underline{\underline{\frac{y}{b} = \frac{1}{3}}}$$