

9-275-F  
(Apr. 93)

U.S. Department of the Interior  
U.S. Geological Survey  
Water Resources Division  
**DISCHARGE MEASUREMENT NOTES**

Meas. No. 95

Comp. by SLD

Checked by \_\_\_\_\_

Sta. No. F1

Sta. Name Canada Stem

Date Nov 27, 2009 Party MJS/BAM/SLD

Width 1.26 Area .0587 Vel. 0.817 G.H. \_\_\_\_\_ Disch. .048

Method \_\_\_\_\_ No. Sec. \_\_\_\_\_ G.H. Change \_\_\_\_\_ in \_\_\_\_\_ hrs. Susp. \_\_\_\_\_

Method coef. \_\_\_\_\_ Hor. angle coef. \_\_\_\_\_ Susp. coef. \_\_\_\_\_ Meter No. \_\_\_\_\_

Type of meter metal boyant Date rated \_\_\_\_\_ Tag checked \_\_\_\_\_

Meter \_\_\_\_\_ ft. above bottom of wt. Spin before meas. \_\_\_\_\_ after \_\_\_\_\_

Meas. Plots \_\_\_\_\_ % diff from \_\_\_\_\_ rating. Levels obtained No

GAGE READINGS				WATER QUALITY MEASUREMENTS	
Time	Inside		Outside	No. <input checked="" type="checkbox"/>	Yes..... Time.....
1245	0.94		.07	-1.07	Samples Collected
*1250	measurement			-	No. <input checked="" type="checkbox"/> Yes..... Time.....
1258			.12	-1.12	Method Used
1300	1.04		.18	-1.18	EDI..... EWI..... Other.....
					SEDIMENT SAMPLES
					No..... Yes..... Time.....
					Method Used
					EDI..... EWI..... Other.....
					BIOLOGICAL SAMPLES
					Yes..... Time.....
					No..... Type.....
Weighted MGH					
GH correction					
Correct MGH					

Check bar, chain found \_\_\_\_\_ changed to \_\_\_\_\_ at \_\_\_\_\_

Wading, cable, ice, boat, upstr., downstr., side bridge at same feet, mile, above, below, gage.

Measurement rated excellent(2%), good(5%), fair(8%), poor(over 8%), based on following cond:

Flow evenly distributed

Cross section even - in flume

Control clear - snow in gage pool

Gage operating yes Weather PARTLY CLOUDY / WINDY / COOL

Intake/Orifice cleaned no Air 5.0 °C@ \_\_\_\_\_ Water 2.0 °C@ \_\_\_\_\_

Record removed no Extreme Indicator: Max \_\_\_\_\_ Min \_\_\_\_\_

N<sub>2</sub> Pressure Tank 1700 Feed 11 Bbl rate \_\_\_\_\_ per min. Batt volt 14volts

CSG checked \_\_\_\_\_ Stick reading \_\_\_\_\_

Observer \_\_\_\_\_ outside, in well \_\_\_\_\_

HWM \_\_\_\_\_

Remarks CRUX data + time = ok  
\*L 1) 0.9388 2) 1.7820 3) 25.423 4) 5.843 5) 14.275

River at-

Angle coef- ficient	Dist. from initial point	Width	Dept h	Observa- tion Depth	Revo- lutions	Time in seconds	VELOCITY		Adjusted for hor.- angle or -----	Area	Discharge
							At Point	Mean in vertical			

Depth (ft)

① .05

② .04

③ .05

$d_{avg} = 0.0467$

Width (ft)

① 1.87

② .07

③ 1.20

$w_{avg} = 1.257$

Time (sec)

① 3.38

② 3.34

③ 3.57

Length =

① = 2.80 ft

$Area = d_{avg} * w_{avg} = .0467 * 1.257 = .0587 ft^2$

velocity =  $\frac{2.80 ft}{3.38 s} = .828 ft/s$

$\frac{2.80}{3.34} = .838 ft/s$

$\frac{2.80}{3.57} = .784 ft/s$

$v_{avg} = 0.817 ft/s$

$Q = v * a$

$.817 ft/s * .0587 ft^2 = .048 cfs$