BC Ministry of Environment and Climate Change Strategy

DISCHARGE MEASUREMENT FIELD DATA AND CALCULATION, V2.0

(Excel Spreadsheet Multis is valid for upto 62 measurement points)

Section 1: Site Information

Station Identification Number:
Station Name: Ayum Creek
Gazetted Stream Name: Ayum Creek
Station Operating Agency/Firm and Contact Details: Clark Hydrological Services

Date (YYYYMMDD): 1997-11-08 **Metered By:** B. Boyd
Air Temperatures (^{0}C): 10.00 **Water Temperatures (^{0}C):** 5.00

Location of Metering Section: 23 Metres d/s of recorder

	Time, PST (24hh:mm)	Ref. Gauge (m)	I.G. (m)	Recorder (m)
Begin	11:47	0.894		0.894
End	12:37	0.875		0.875
Mean	12:12	0.885		0.885
Gauge Correction (m):		0.000		
C.G.H. (m):		0.885		

Total Discharge (m^3/sec):	4.543	Total Area (m^2):	7.636	Avg. Velocity (m/s):	0.595
Water Surface Width (m):	11.100	No of Verticals:	24		

Meter: **Type:** OSS PC1 **No:** **Fan # :**

Method of Suspension: **Standard or Bridge Rod is selected.**

Options: 1 = Top Setting Rod, 2 = Standard or Bridge Rod, 3 = Cable and Weight.
If 3, Distance from bottom of weight to centroid of meter:
Note: For use of above value refer to section 2.2, Depth.
Method of Suspension: 2

Meter Type: **Multiple Range Meter is Selected.**

V = Velocity(m/s) and n = Revolutions / Second.
Fill in ALL fields of only ONE of the following meter types and leave the other blank.
If both equations are filled, the single range equation will be used.

Single Range Meter Equation

V = n *	Slope	+	Intercept	
V = n *		+		m/s

Multiple Range Meter Equation

n(Min)		n(Max)		Slope		Intercept	
0	< n <	5.50	V = n *	0.1048	+	0.0084	m/s
5.50	<= n <=	99.00	V = n *	0.1008	+	0.0304	m/s
	< n <		V = n *		+		m/s

Remarks:

Methods Description

2 = Two point measurement, 0.2 and 0.8 depths are measured.
3 = Three point measurement, 0.2 and 0.6 and 0.8 depths are measured.
5 = Point 5 measurement, 0.5 depth is measured. (only used for under ice conditions, 0.88 coefficient applied)
6 = Point 6 measurement, 0.6 depth is measured.
B = Waters edge, used at the start of all measurements, and after any "S" method. (The first panel disch. may be based on an estimated velocity. See method E, below.)
E = Estimated velocity. (Entered in Cos column as a % of adjacent measured velocity, ie 66% entered as .66. At least one adjacent measurement method should be 2, 3, 6 or 5)
S = Stop at far edge of channel, always followed with a "B". (Last panel disch. may be estimated, as above.)
T = Absolute end of measurement.

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Section 2: Data Entry & Computations											
Observations							Computations				
							Velocity				
Method	Distance From Init. Point (m)	Depth (m)	Depth of Obs. (m)	Revs. (No)	Time (Secs)	Cos of Flow	At Point (m/s)	Mean in Vertical (m/s)	Width (m)	Area (m^2)	Disch. (m^3/S)
B	3.400	0.000									
6	3.500	0.090	**0.036**	39	50		**0.090**	**0.090**	**0.300**	**0.027**	**0.002**
6	3.900	0.360	**0.144**	42	50		**0.096**	**0.096**	**0.300**	**0.108**	**0.010**
6	4.100	0.540	**0.216**	84	50		**0.184**	**0.184**	**0.300**	**0.162**	**0.030**
6	4.500	0.680	**0.272**	107	50		**0.233**	**0.233**	**0.450**	**0.306**	**0.071**
6	5.000	0.640	**0.256**	150	50		**0.323**	**0.323**	**0.500**	**0.320**	**0.103**
6	5.500	0.600	**0.240**	199	50		**0.426**	**0.426**	**0.500**	**0.300**	**0.128**
6	6.000	0.630	**0.252**	252	50		**0.537**	**0.537**	**0.500**	**0.315**	**0.169**
6	6.500	0.690	**0.276**	280	50		**0.595**	**0.595**	**0.500**	**0.345**	**0.205**
6	7.000	0.710	**0.284**	288	50		**0.611**	**0.611**	**0.500**	**0.355**	**0.217**
6	7.500	0.730	**0.292**	279	50		**0.593**	**0.593**	**0.500**	**0.365**	**0.216**
6	8.000	0.760	**0.304**	274	50		**0.583**	**0.583**	**0.500**	**0.380**	**0.221**
6	8.500	0.720	**0.288**	305	50		**0.645**	**0.645**	**0.500**	**0.360**	**0.232**
6	9.000	0.760	**0.304**	346	50		**0.728**	**0.728**	**0.500**	**0.380**	**0.277**
6	9.500	0.840	**0.336**	351	50		**0.738**	**0.738**	**0.500**	**0.420**	**0.310**
6	10.000	0.840	**0.336**	370	50		**0.776**	**0.776**	**0.500**	**0.420**	**0.326**
6	10.500	0.810	**0.324**	342	50		**0.720**	**0.720**	**0.500**	**0.405**	**0.292**
6	11.000	0.810	**0.324**	389	50		**0.815**	**0.815**	**0.500**	**0.405**	**0.330**
3	11.500	0.920	**0.736**	504	50		**1.046**	**0.865**	**0.500**	**0.460**	**0.398**
			0.368	403	50		**0.843**				
			0.184	346	50		**0.728**				
3	12.000	0.900	**0.720**	455	50		**0.948**	**0.724**	**0.500**	**0.450**	**0.326**
			0.360	314	50		**0.663**				
			0.180	294	50		**0.623**				
3	12.500	0.900	**0.720**	368	50		**0.772**	**0.606**	**0.500**	**0.450**	**0.273**
			0.360	278	50		**0.591**				
			0.180	220	50		**0.470**				
6	13.000	0.800	**0.320**	267	50		**0.568**	**0.568**	**0.500**	**0.400**	**0.227**
6	13.500	0.550	**0.220**	272	50		**0.579**	**0.579**	**0.500**	**0.275**	**0.159**
6	14.000	0.400	**0.160**	56	50		**0.126**	**0.126**	**0.350**	**0.140**	**0.018**
6	14.200	0.220	**0.088**	10	50		**0.029**	**0.029**	**0.400**	**0.088**	**0.003**
T	14.500	0.000									