

BC Ministry of Environment

DISCHARGE MEASUREMENT FIELD DATA AND CALCULATION, V2.0 (Excel Spreadsheet Stndt is valid for upto 25 measurement points)

Section 1: Site Information

Station Operating Agency/Firm: Clark Hydrological Services
Station Name: Ayum Cr. **EMS ID:** _____
Station Number: 1AHA042 **Project No. (if any) e.g., FIA :** _____
Date (yyyy/mm/dd): 1997-11-08 **Metered By:** B. Boyd
Air Temperatures (°C): _____ **Water Temperatures (°C):** _____

Location of Metering Section: _____

	Time, PST (24h:mm)	Ref.G. (m)	I.G. (m)	Recorder (m)
Begin	15:45	0.430		
End	16:20	0.430		
Mean	16:02	0.430		
Gauge Correction (m):				
C.G.H. (m):		0.430		

Total Discharge (m³/sec):	0.057	Total Area (m²):	0.265	Avg. Velocity (m/s):	0.214
Water Surface Width (m):	0.000	No of Verticals:	19		

Meter: PC1 **Type:** _____ **No:** 95-29 **Prop:** 1-95-21

Method of Suspension: Top Setting 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: 1

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
 $V = n * \text{Slope} + \text{Intercept}$ m/s
 V = n * + m/s

Multiple Range Meter Equation

n(Min)		n(Max)	V = n *	Slope		Intercept	
0	< n <	1.82	V = n *	0.057	+	0.0214	m/s
1.82	<= n <=	5.03	V = n *	0.0572	+	0.0211	m/s
5.03	< n <	99	V = n *	0.0532	+	0.0411	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				
Method	Distance From Init. Point (m)	Depth (m)	Depth of Obs. (m)	Revs. (No)	Time (Secs)	Cos of Flow	Velocity		Width (m)	Area (m ²)	Disch. (m ³ /S)
							At Point (m/s)	Mean in Vertical (m/s)			
B	0.150	0.01									
6	0.200	0.18		-33	50		-0.016	-0.016	0.1	0.018	0.000
6	0.300	0.19		-54	50		-0.040	-0.040	0.1	0.019	-0.001
6	0.400	0.2		-36	50		-0.020	-0.020	0.1	0.020	0.000
6	0.500	0.2		17	50		0.041	0.041	0.1	0.020	0.001
6	0.600	0.21		118	50		0.156	0.156	0.075	0.016	0.002
6	0.650	0.22		130	50		0.170	0.170	0.05	0.011	0.002
6	0.700	0.22		199	50		0.249	0.249	0.05	0.011	0.003
6	0.750	0.22		304	50		0.365	0.365	0.05	0.011	0.004
6	0.800	0.26		387	50		0.453	0.453	0.05	0.013	0.006
6	0.850	0.26		383	50		0.449	0.449	0.05	0.013	0.006
6	0.900	0.28		351	50		0.415	0.415	0.05	0.014	0.006
6	0.950	0.28		334	50		0.396	0.396	0.05	0.014	0.006
6	1.000	0.19		220	50		0.273	0.273	0.05	0.010	0.003
6	1.050	0.18		112	50		0.149	0.149	0.05	0.009	0.001
6	1.100	0.22		163	50		0.208	0.208	0.05	0.011	0.002
6	1.150	0.22		267	50		0.325	0.325	0.05	0.011	0.004
6	1.200	0.24		305	50		0.366	0.366	0.05	0.012	0.004
6	1.250	0.23		240	50		0.296	0.296	0.05	0.012	0.003
6	1.300	0.22		216	50		0.268	0.268	0.095	0.021	0.006
T	1.370	0.22									