

7/17/19 Rhodamine Dana Fork @ Bug Camp MW, CT, BM

Initial Flow Measurements (River Water Only)

RUN 1 = 250 mL / 20s = 12.5 mL/s

RUN 2 = 230 mL / 20s = 11.5 mL/s

RUN 3 = 230 mL / 20s = 11.5 mL/s

Run 4 = 225 mL / 20s = 11.25 mL/s

Run 5 = 230 mL / 20s = 11.5 mL/s

o o o

- Placed probe ~ 1300 ft downstream
of gage in shade on far side
of log.

Initial Temp: 15:44 PDT 15.65°C

R_{hwt} = -0.2 µ/L

o o o

→ use 00:00:05 (5s) interval

→ use correct file name (site) site name (date)

Added 100.51g of 20% in 2L w/
30.1g of 20% in 1L to adjust
for original math error

= 130.61g of 20% = 26.122g R_{wt}

o o o

TD @ 3:54^{PM} PDT = 1618 ft above base bolt

o o o

Final Flow Measurement

*Not possible since Rhd solution below level below
the nozzle conduit.

7/17/19

Rhodamine MW, CF, BM
Dana Fork @ Bug CampNote

Pour site opposite bank and
 ~8ft from gauge site. Virtually
 all Rhodamine flowed along bank
 and down the right fork. There
 was very poor mixing on upstream
 section of the fork. Too little /
 no Rhd solution to do a final
 flow rate measurement. Last 2 min.
~~2 min~~ of flow of Rhd experienced,
 visually, a decrease in flow rate
 eventually approaching zero while
 plateau still was not reached.
 Plateau reached < 1 min after
 zero flow. *

* after plateau, spiked suddenly
 (1.5 min later) then dropped
 back to plateau

TD @ 4:43 PM PDT = 4.18 ft down from
 bolt

Cont.

Discharge Est.

$$Q = (qC)/c$$

[initial flow avg.]

$$q = 11.45 \text{ mL/s}$$

$$= 0.01145 \text{ L/s}$$

C → injection solution conc

130.461 g sln. of 20% Rhd.

26.122 g Rhd / 10 L

$$C = 2.6122 \text{ g/L}$$

$$c = 13.8 \text{ } \mu\text{g/L} = 13.8 \text{ } \mu\text{g/L}$$

* Not a consistent plateau; # 13 avg of plateau

$$Q = \frac{(0.01145 \text{ L/s} \cdot 2.6122 \text{ g/L})}{13.8 \text{ } \mu\text{g/L}}$$

$$Q = \frac{22376.6566 \text{ L/s}}{22376.566 \text{ cm}^3/\text{s}}$$

$$= 79.022 \text{ cfs}$$