

LINE P

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THE

WISH

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SOME

IPS TO 1

1.1 AT PUMPS

..X

1/458

HOSE

5

AUG 30 2022 LAPEROUSE 2022.022

1148 UTC 48 20.48 126 35.16

LINE BLEW OFF AT BOTTOM OF THE IN TO FLOWMETERS
SHUT VALVE, REATTACHED BLACK HOSE + CLAMPED
WITH ZIP TIE, RESET FLOWMETERS AFTER OPENING
VALVE

AUG 31 2022 2022.022

WAS RUNNING PUMP 1 2:0, PUMP 2 1:2

0715 50 01.42 127 58.00 ADJUSTED TO 1/1.1

23 January 2024 2024-002 SR&CI

Cleaned the debubbler & fluorometer.

Changed the TSG to 45-0620, fluorometer stays
as WSCHL-1656 (backup is WSCHL-1686), T sensor
is 38-0603.

The quick disconnect fittings used to have
mesh through them & algae would clog them
& make it harder to clean. Scott drilled them
out to remove the mesh prior to this trip

26 January 2024 2024-002 CI

Since we had to swap the 45 for a new
sensor, the old TSG code from Sept 2023
did not provide any T or C readings. Lindsay
provided new code, in which he changed ONLY
the baud rate for the 45 from 4800 to 9600.
His new code gave logical T & C values, but
Flow 1 went from being ~1.1 L/min to -0.5 L/min
& Flow 2 remained consistent. Does not make sense

→

old code		
	Flow meter reading (L/min)	grad cyl test (L/min)
Flow 1	1.1	1.25
Flow 2	1.0	2.5
New		

since the flow rate does not pull from that baud or the 45 code...

Chloe & Cindy ran a graduated cylinder test to see how fast each tube's flow was flowing. Results

So BOTH flow meters are wrong... Lindsay said as long as they're over 0.5 L/min, the sensors should be happy and other than that, we don't need to be too accurate w the flow rates.

Chloe went back to the old code in the CRBasic Editor through Logger Net, saved as to create a new file: "TULLYTS.G26Jan2024.CR6" in "This PC \ Local Disc (C:) \ Campbellsci \ LoggerNet", manually changed the baud rate from 4800 to 9600 in line 68 of the code, saved again, then hit "File" → "Compile, Save, & Send". Went back to look at RTMC run time & it worked! We have reasonable T, C, & fluorescence values, and the flow rates are listed as ~1.1 L/min

Flow 2: $12 \text{ sec} / 0.500 \text{ L} \times \frac{1 \text{ min}}{60 \text{ sec}} = 2.5 \text{ L/min}$

(L/min)

Flow 1: $\frac{24 \text{ sec}}{0.5 \text{ L}} \times \frac{1 \text{ min}}{60 \text{ sec}} = 1.25 \text{ L/min}$

all

scribbles

CI 31 Jan 2024 @ 16:51 VTC, Chloe cleaned the fluorometer w/ swabs & transmissometer spray cleaner after turning off flow completely to flow 2. Turned flow back on at 16:55, flow to both flow 1 & flow 2 seems steady & flow meters are happy. There is a corresponding spike in fluorescence when I was cleaning the fluorometer.

Seem to be missing data from 26 Jan 2024 @ 15:00 to 28 Jan 2024 @ ~14:50.

RBasic MG/CI

06 Feb 2024 2024-002

Moiras notes from the "Seawater spike"

Mike's CO₂ blow water hose at manifold ran down & reconnected 12:55.

TSG pump 2 went to zero but water still flowing through, stopped flow, cleaned out chunks.

Pump 1 & 2 went at 1.1 & 0.8 & then went to zero, got them up to 0.4 & 0.6 & back to zero.

Got pump 1 to 1.1, pump 2 remained at zero despite Mike & Moira's best efforts to regain flow readings. There was still water flowing through so they just set them to be ~ the same visually, using the toggles.

Moira cleaned Fluorometer & tubing w/ swabs.

1. CR6 "

or Net "

to 9600

in bit

ack to

WE

5,

1.1 L/min

CI&MG 07-Feb-2024 2024-002

around 12:15 PST, Mike shut off & disconnected his pCO_2 system & this caused another surge in the TSG system, with water leaking out of nearly all the pipe fittings. Mike recommends switching to small diameter hose clamps, rather than zip ties. Moira lowered the first valve pressure to reduce flow from TSG system. The engineers got an alarm in the MCR & came up to check. It was determined they needed to lower the flow in the MCR. This seemed to help the leaky tubing.