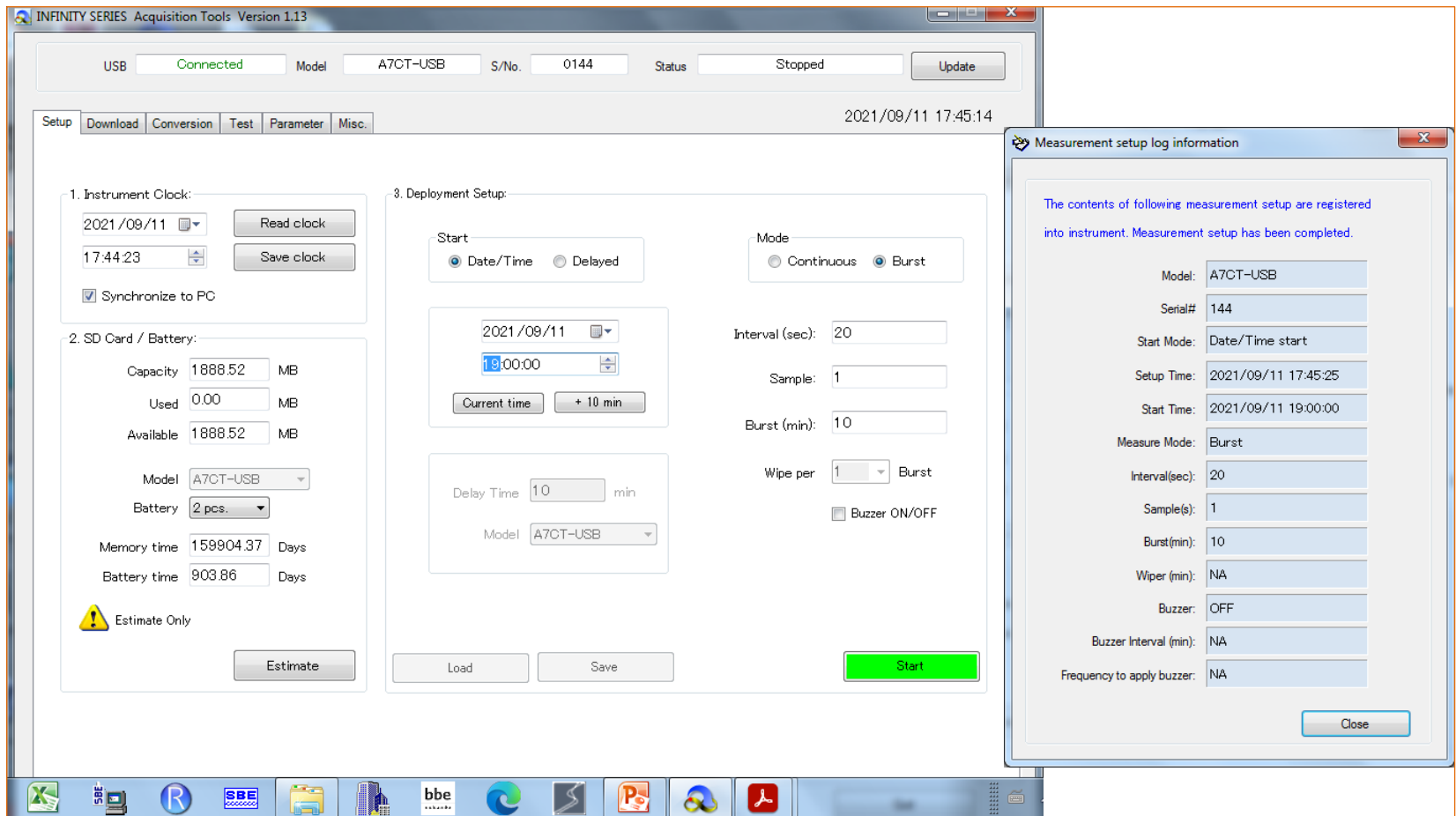


Setup of instruments
for MBGL LWO and LWH
over-winter moorings
Fall 2021 – Spring 2022

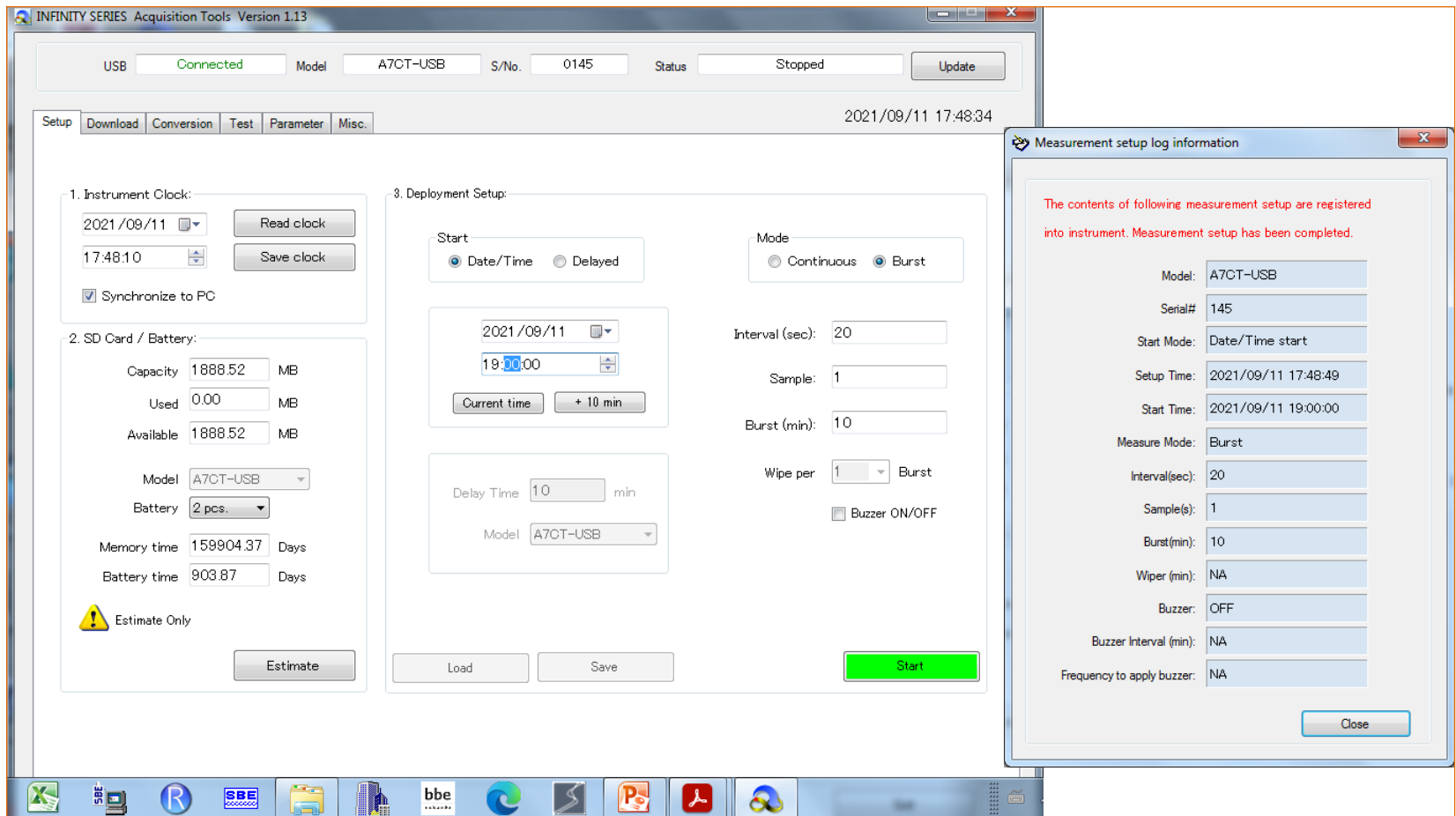
Instruments sent to Waterhen September 2021

- 2 Alec A7CTs 145 (LWH), 247 (LWO)
- 1 Ecotriplet 1442 (LWO)
- 2 Onset DO loggers 20775991 (LWO),
20719126 (LWH)
- 2 Alec PARs 201010, 201089

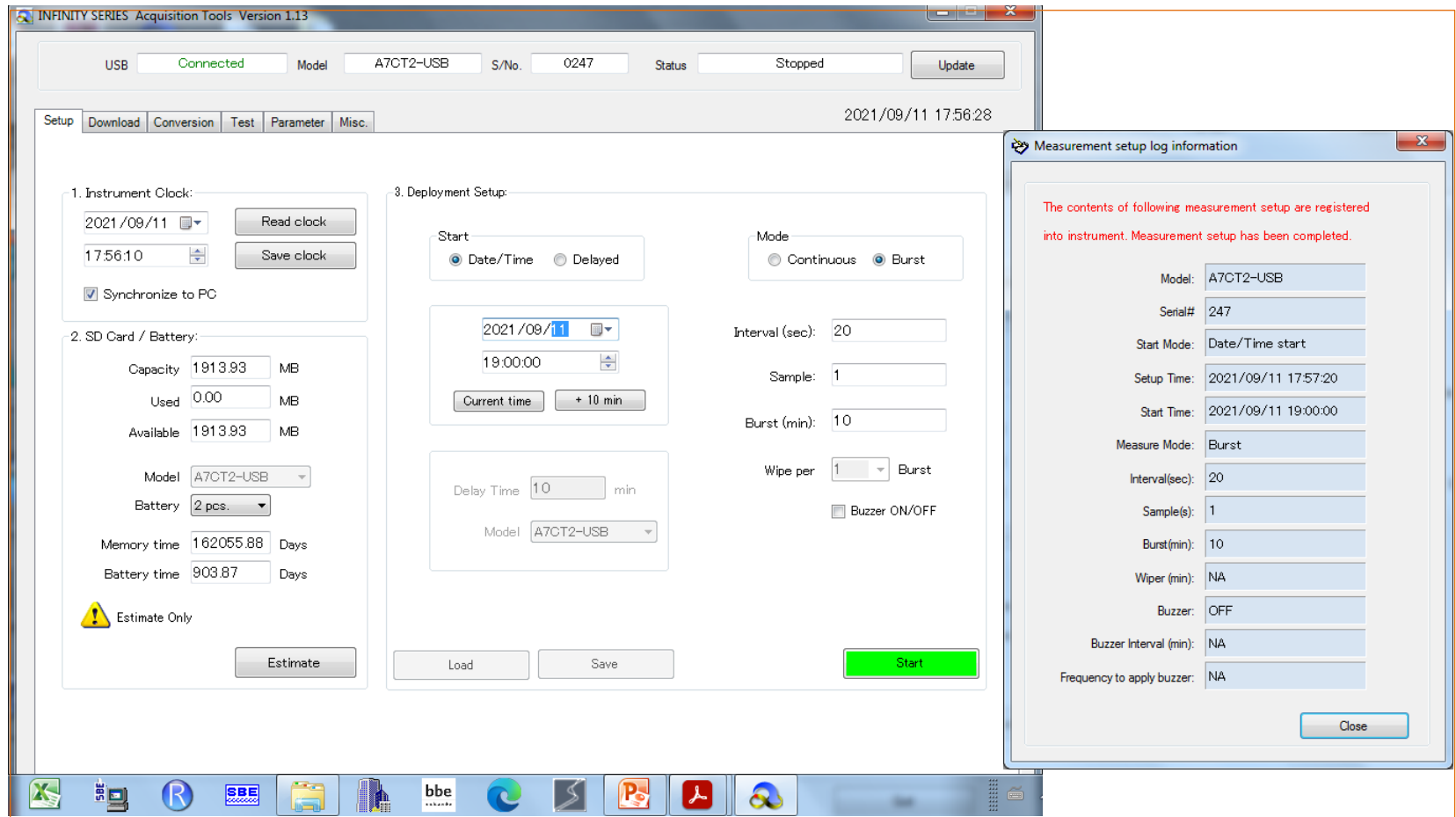
CT instrument intercomparison
A7CT 145 and 247
(144 failed to record)



Setup for inter-comparison of A7CTs 144, 145 and 247 after refurbishing in 2021
144 FAILED TO RECORD DATA

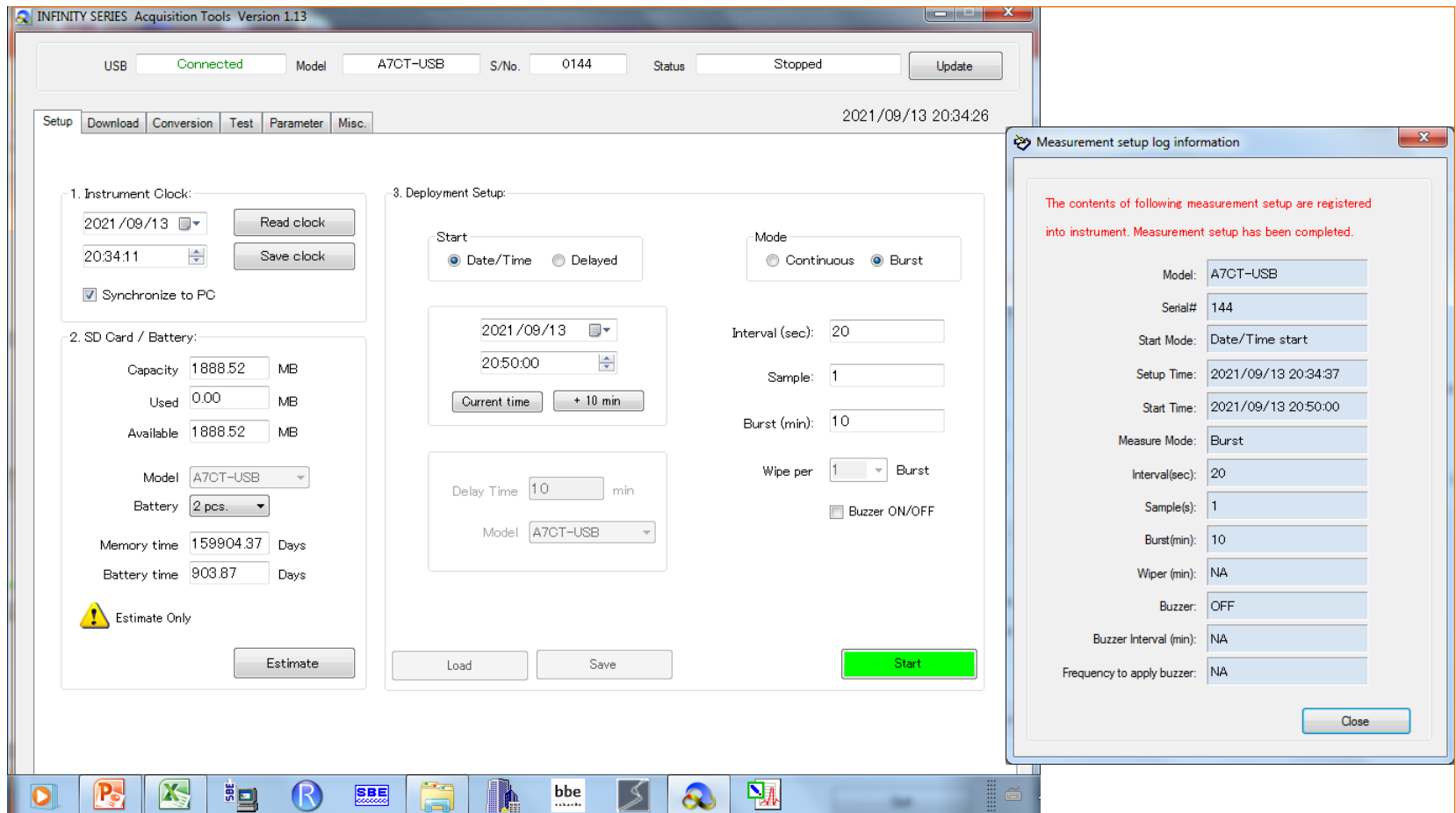


Setup for inter-comparison of A7CTs 144, 145 and 247 after refurbishing in 2021

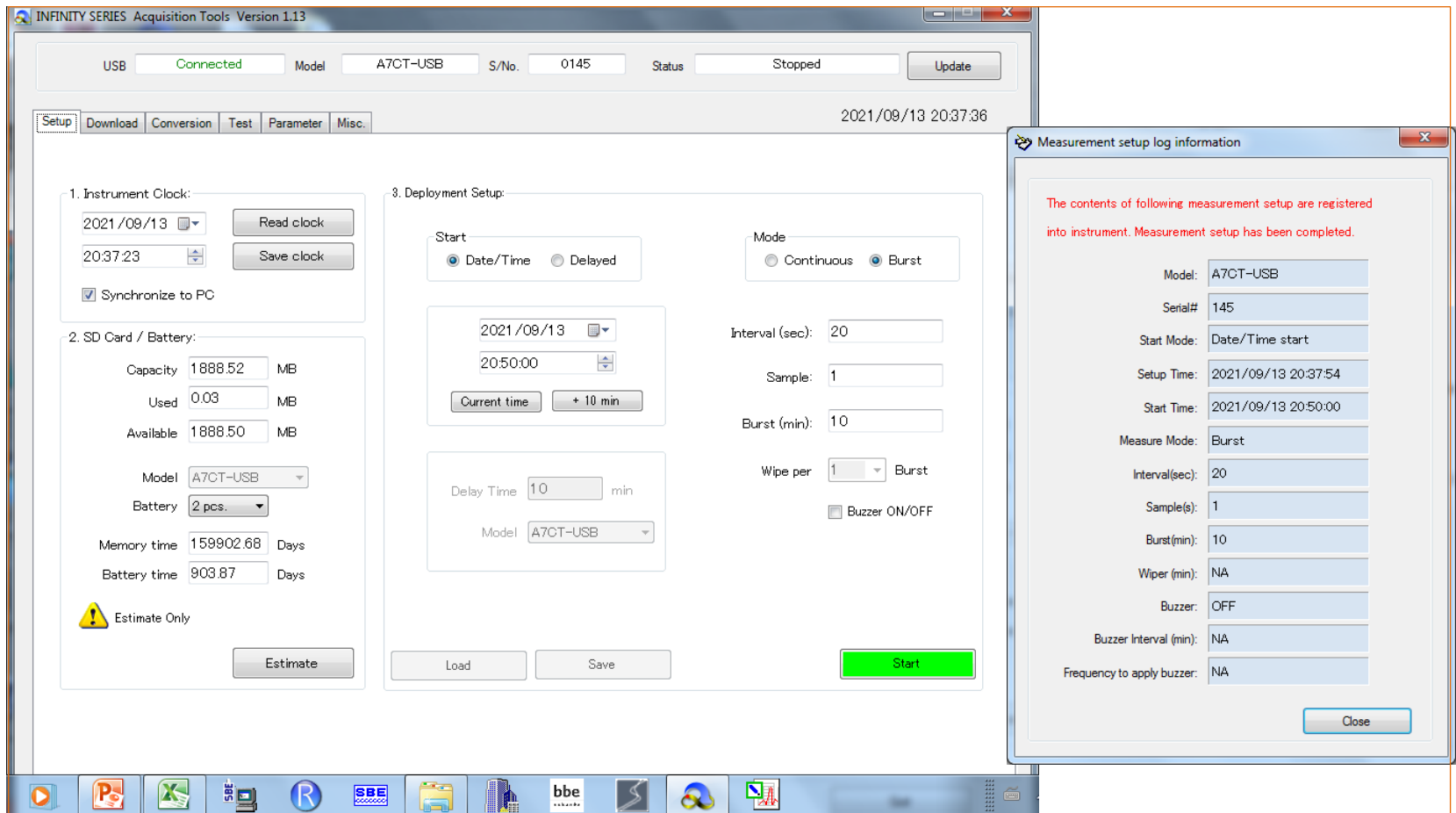


Setup for inter-comparison of A7CTs 144, 145 and 247 after refurbishing in 2021

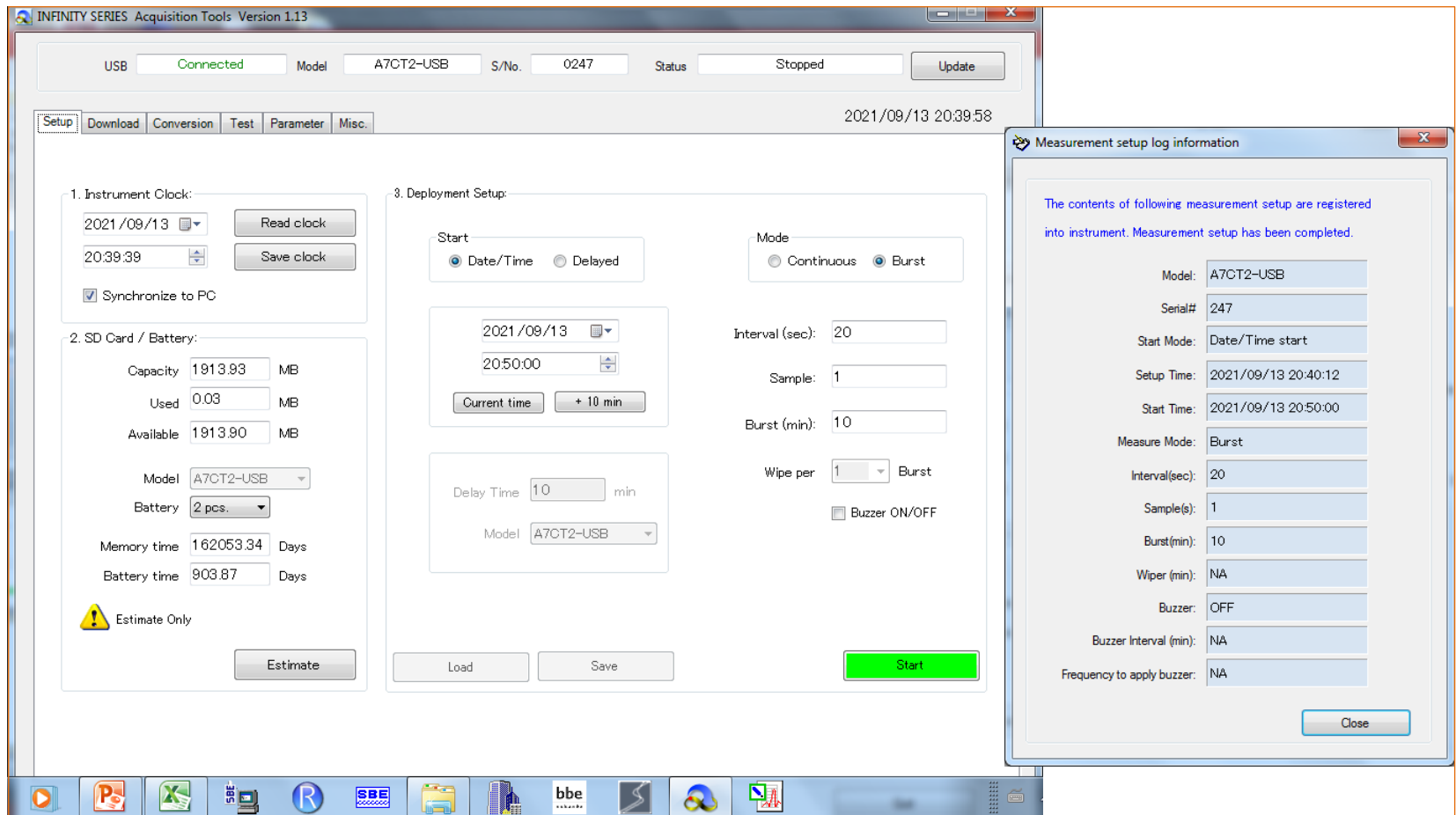
2nd instrument intercomparison A7CTs and ACTs



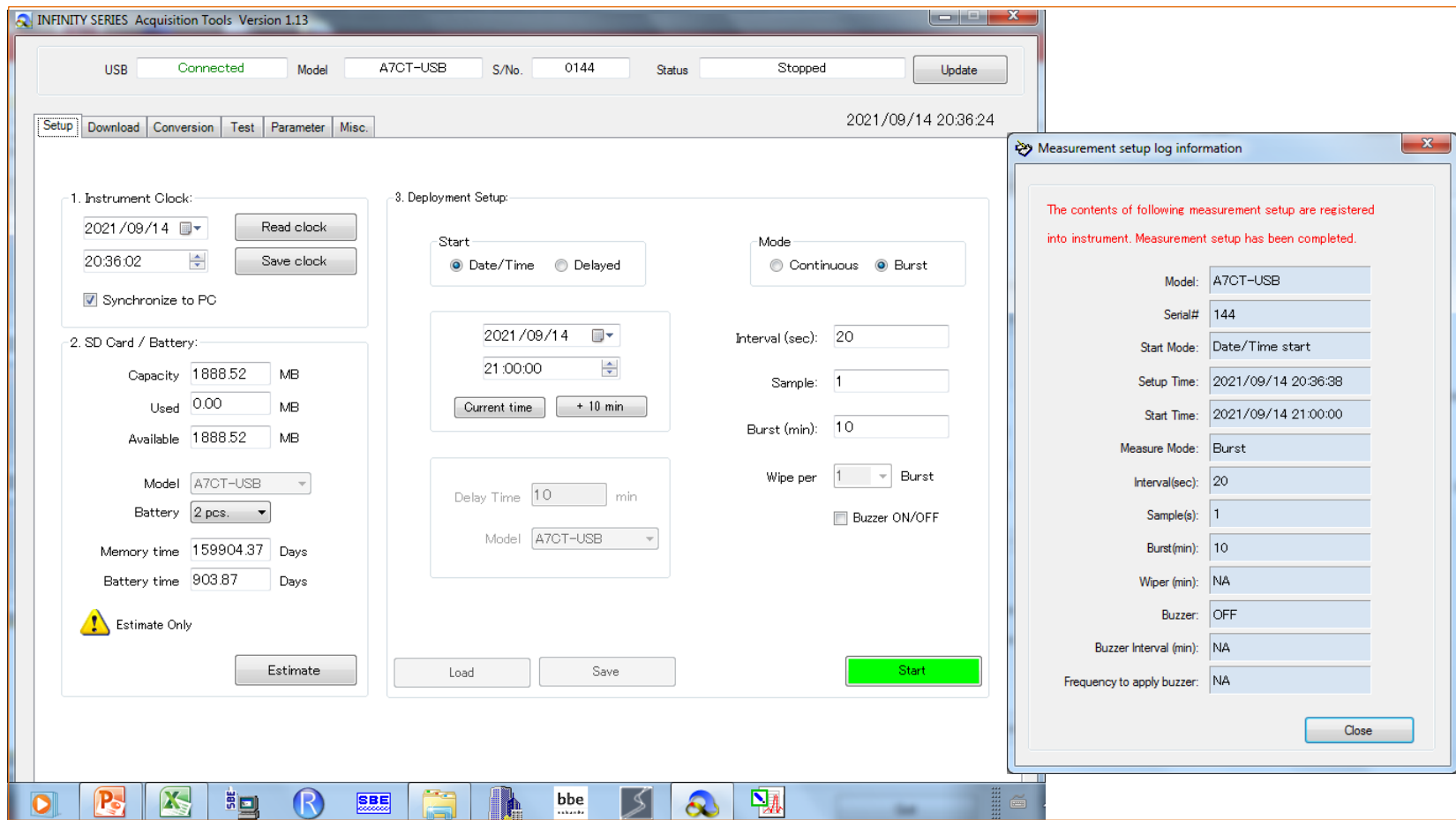
**Setup for inter-comparison of A7CTs 144, 145 and 247 and ACTs 1301, 1589
144 downloaded successfully; then reset (see below) to continue intercomparison**



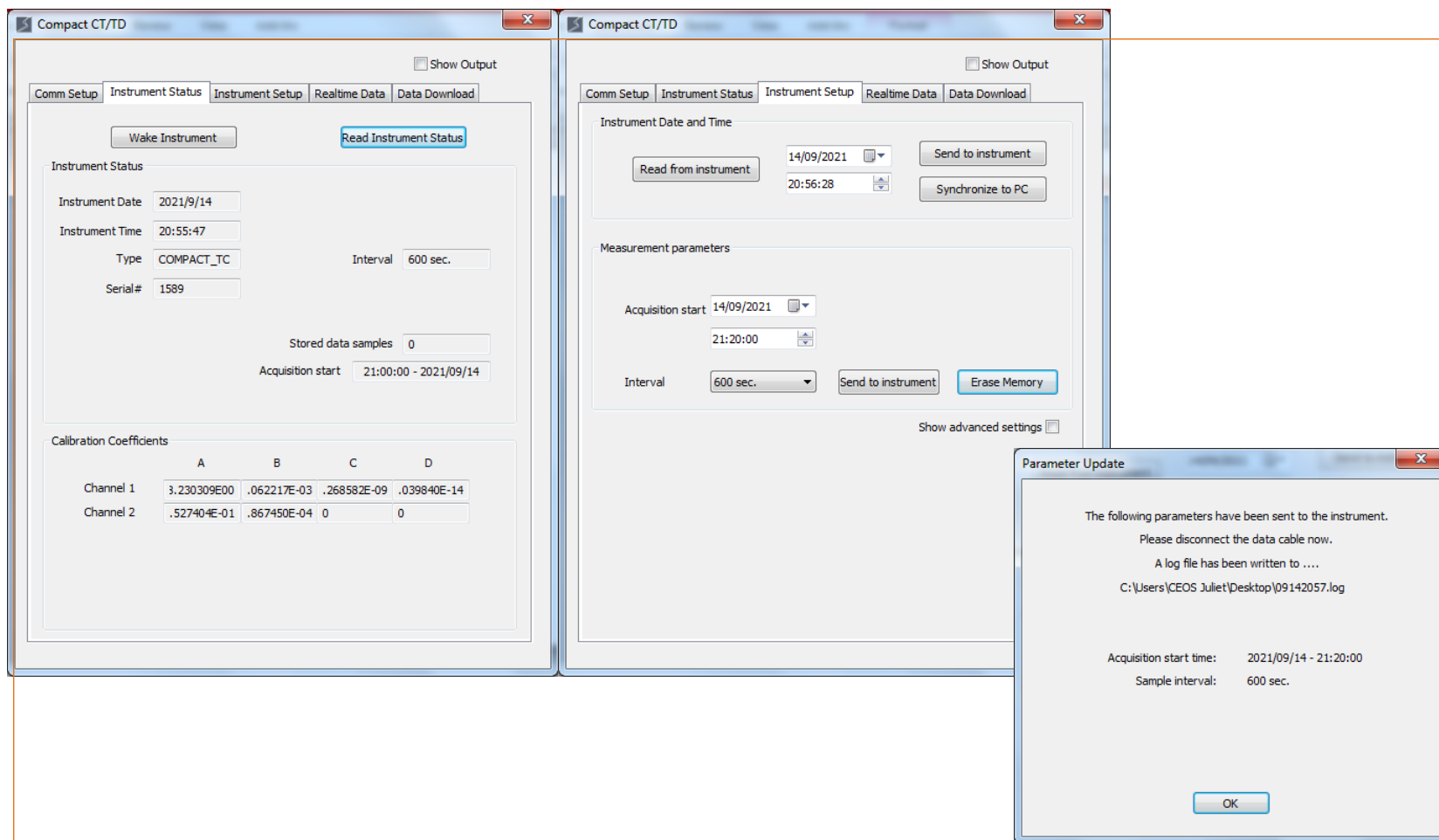
**Setup for inter-comparison of A7CTs 144, 145 and 247 and ACTs 1301, 1589
145 not downloaded; sent for deployment using this setup**



**Setup for inter-comparison of A7CTs 144, 145 and 247 and ACTs 1301, 1589
247 not downloaded; sent for deployment using this setup**



**Setup for inter-comparison of A7CTs 144, 145 and 247 and ACTs 1301, 1589
144 reset after successful download, to continue intercomparison**



**Setup for inter-comparison of A7CTs 144, 145 and 247 and ACTs 1301, 1589
1589 successfully started; 1301 did not respond.**

Ecotriplet set up
September 2021

ECO View: v1.23 Apr 9 2013 ECO: Ver Triplet5.33

File

Host: 09/16/21 17:27:12 Recording: OFF
 ECO: 09/16/21 17:27:12 Raw File:
 Sample Rate: Raw File Size: 0 K
 Device File: C:\Users\CEOS Juliet\Documents\MBGL\ECO\ECOTriplet software\DeviceCalibrationFiles2020\BBFL2WB-1442.DEV
 Engr Units File:
 Engr Units File Size: 0 K

Stop Data

Start Data

Record Raw

Record Engr

Stop Record

Shutter Status: Open

Bytes Read: 2367

Host Port Selection
 Host Port - COM 1

19200 Baud

Meter Setup | Raw Data | Plot Data | Transfer Data

	Change Settings To	Current Ram Settings
Set Avg / Data Rate	30	Average: 30 Sample Rate:
Set Number of Samples	3	Number of Sample: 3
Set Number of Cycles	60000	Number of Cycles: 60000
Set Cycle Interval	002000	Cycle Interval: 00:20:00

Turn Logging OFF Internal Log: Logging: ON

Erase Memory Used: 0 K 0.0 %
 Free: 1055 K 100% No version found

Open Shutter **Close Shutter**

Get Date/Time/Setup

Set Date

Set Time

Store To Flash

Get RAM Setup

Reload Flash Setup

Get Device File

ECO 1442 set up September 2021.

ECO View: v1.23 Apr 9 2013 ECO: Ver Triplet5.33

File

Host: 09/16/21 18:03:25 Recording: OFF
 ECO: 09/16/21 18:03:25 Raw File:
 Sample Rate: Raw File Size: 0 K
 Device File: C:\Users\CEOS Juliet\Documents\MBGL\ECO\ECOTriplet software\BBFL2\WB-1440(2016).dev
 Engr Units File:
 Engr Units File Size: 0 K

Stop Data

Start Data

Record Raw

Record Engr

Stop Record

Shutter Status: Open

Bytes Read: 1713

Host Port Selection
 Host Port - COM 1

19200 Baud

Meter Setup | Raw Data | Plot Data | Transfer Data

	Change Settings To	Current Ram Settings
Set Avg / Data Rate	30	Average: 30 Sample Rate:
Set Number of Samples	3	Number of Sample: 3
Set Number of Cycles	60000	Number of Cycles: 60000
Set Cycle Interval	002000	Cycle Interval: 00:20:00

Turn Logging OFF Internal Log: Logging: ON

Erase Memory Used: 0 K 0.0 %
 Free: 1055 K 100% No version found

Open Shutter **Close Shutter**

Get Date/Time/Setup

Set Date

Set Time

Store To Flash

Get RAM Setup

Reload Flash Setup

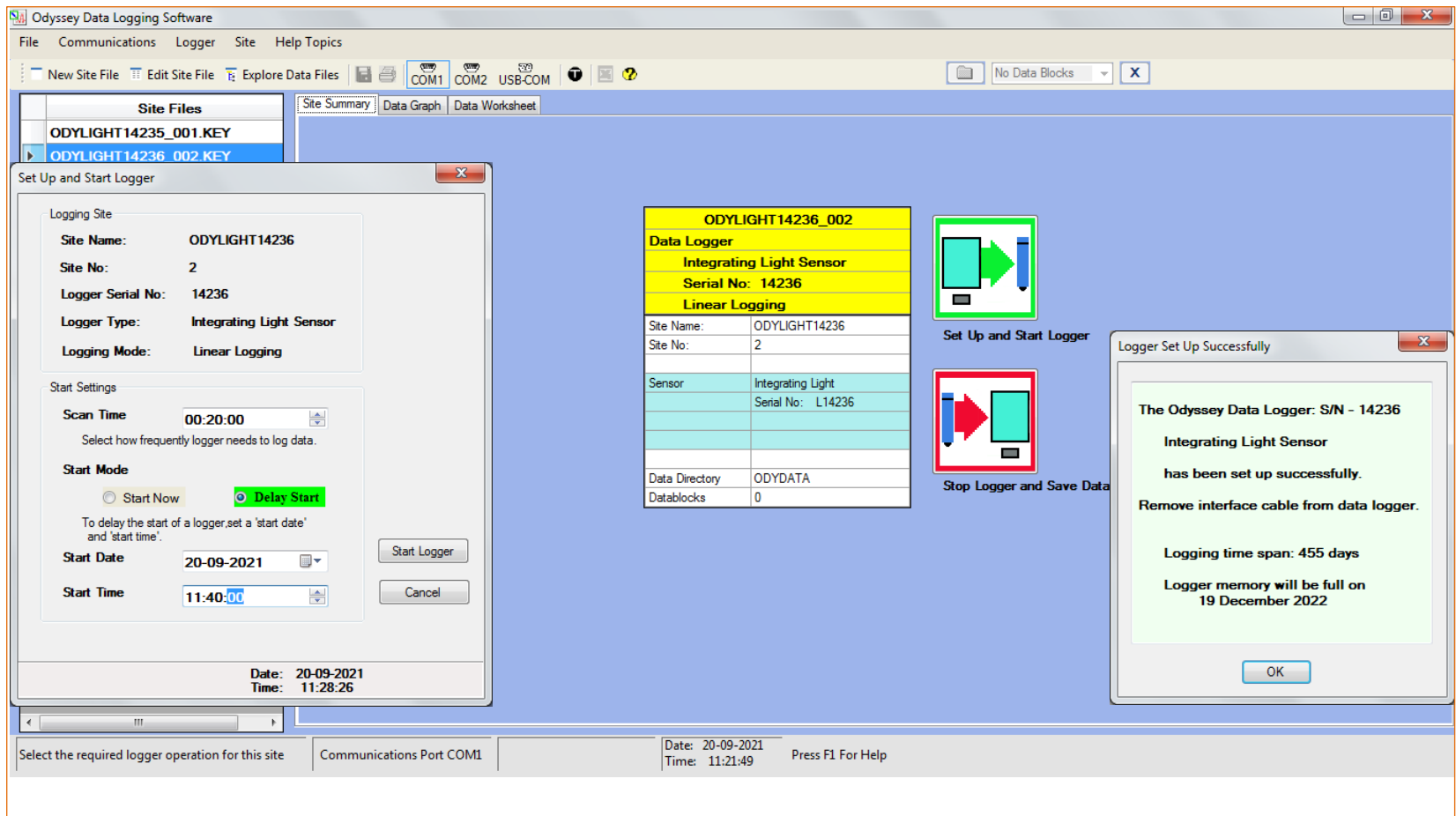
Get Device File

**ECO 1440 set up September 2021 using 2016 device file.
 Not recalibrated with others in winter 2020? Not sent for deployment.**

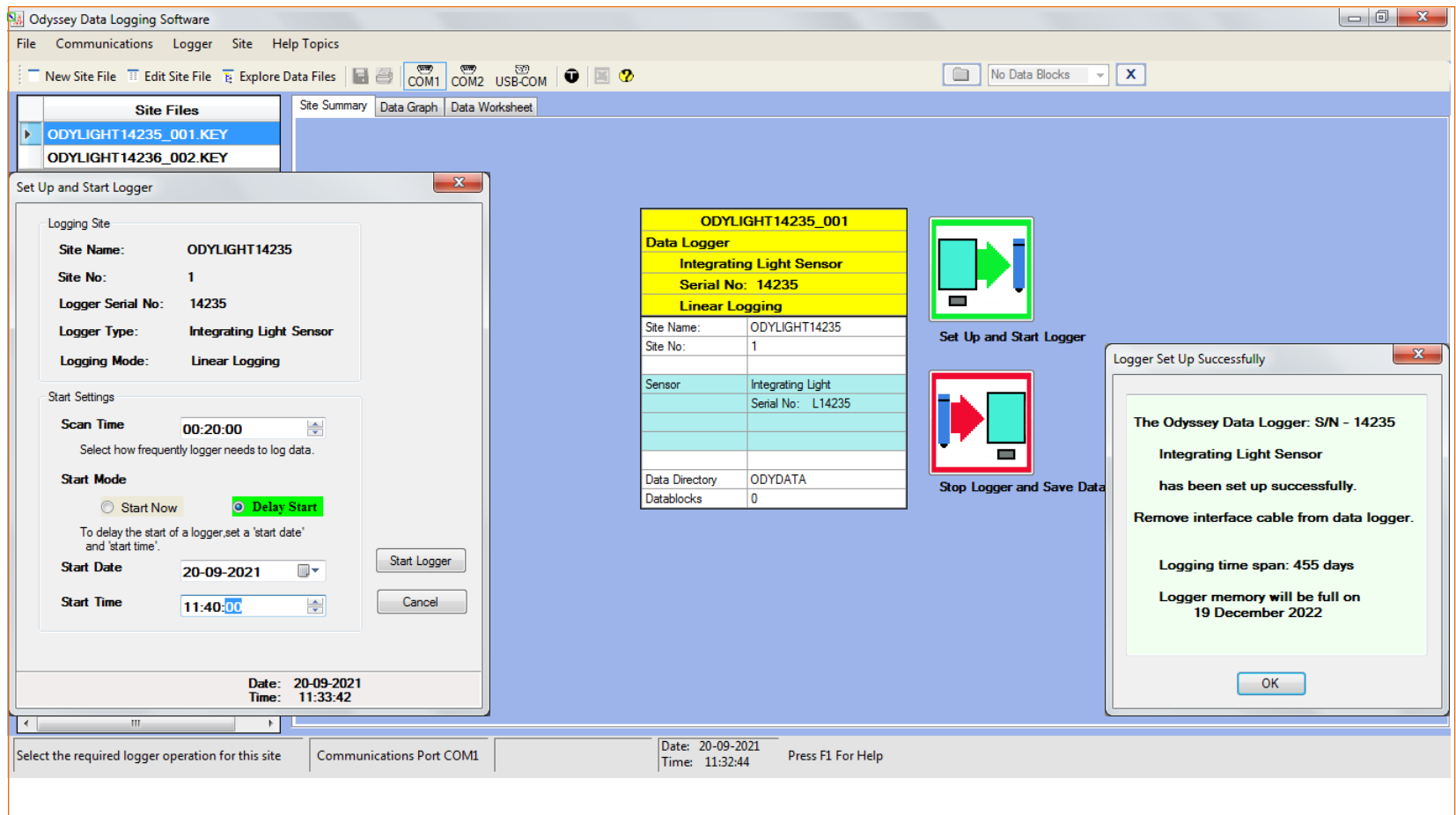
Odyssey PAR set up

September 2021

- PAR sensor set up and deployed beside MMF weather station at SERF, from ~16:00 20 to 27 Sept 2021
- Did not set up Odyssey Extreem wipers



Odyssey PAR 14235 & 14236 setup for deployment beside MBGL/MMF weather station at SERF. Not deployed at MBGL lakes.



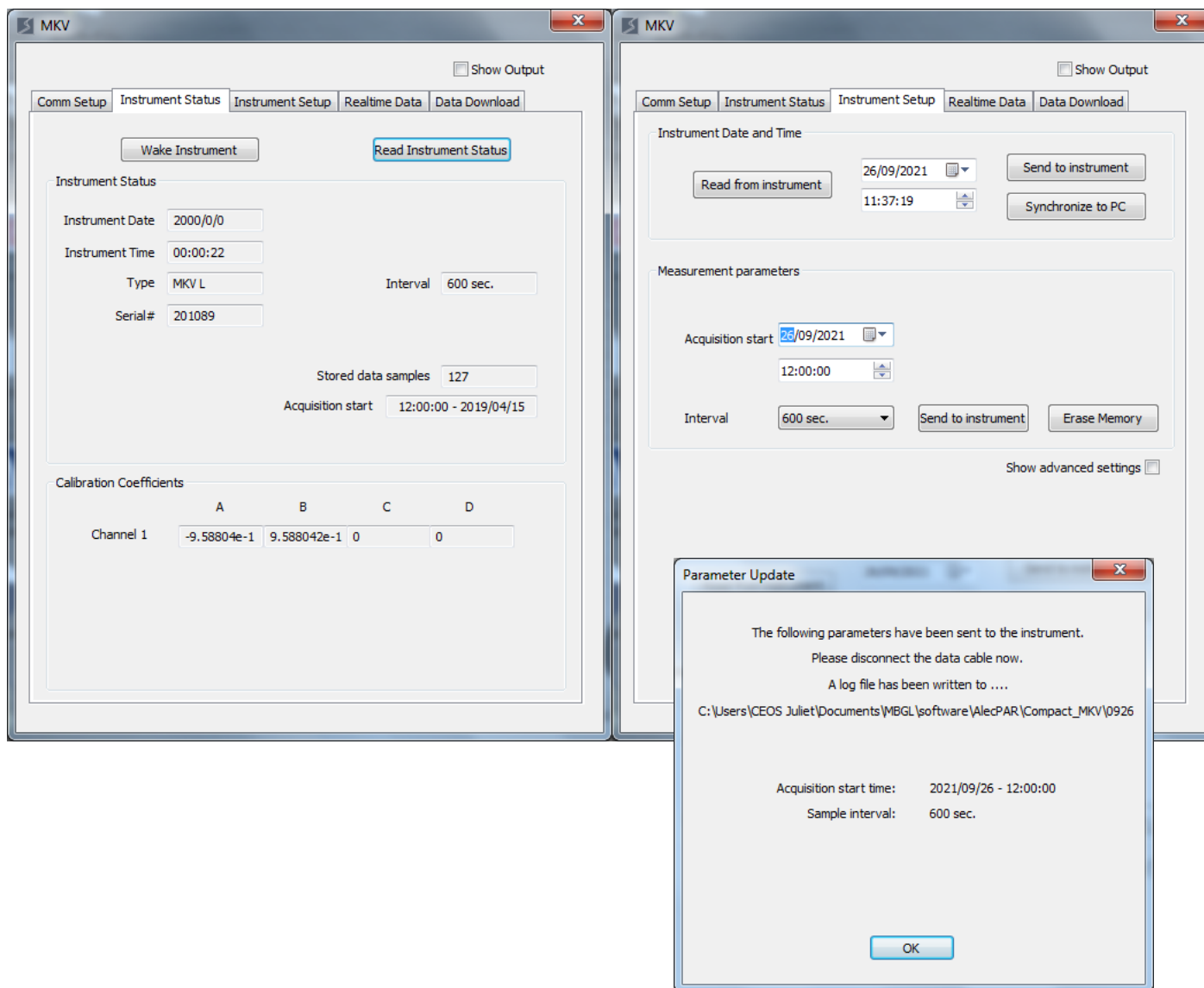
Odyssey PAR 14235 & 14236 setup for deployment beside MBGL/MMF weather station at SERF. Not deployed at MBGL lakes.

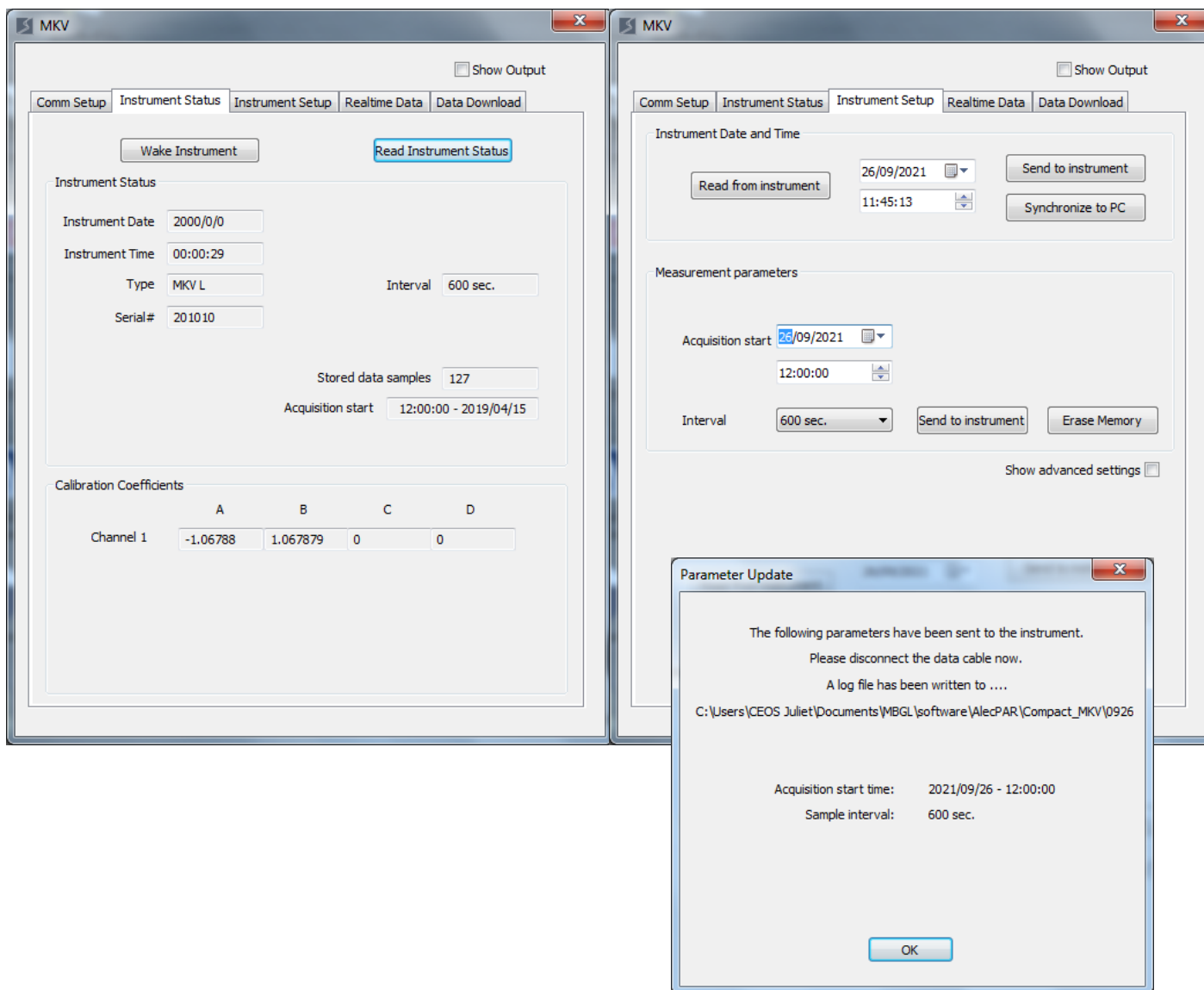
Onset dissolved oxygen
loggers 20775991, 20719126
Set up by Claire
September 2021

Alec PAR sensors

September 2021

- PAR sensor #s 201010, 201089 set up for deployment in LWH and at Waterhen cabin
- Deployed side-by-side for inter-comparison above balcony from 12:00 26 to 12:00 27 Sept 2021 (clear sky); turned 180 deg at 14:00, 15:04, 15:57, 16:57 on 26th and 10:09 (when direct sun had recently first struck sensors), 11:00 (actually 90 deg at 11:00 and another 90 deg at 11:16) on 27th, then packed for deployment at Waterhen





From: David Barber <David.Barber@umanitoba.ca>
Sent: Thursday, October 14, 2021 9:39 AM
To: Greg McCullough <Greg.McCullough@umanitoba.ca>
Cc: Claire Herbert <Claire.Herbert@umanitoba.ca>; Agoston Fischer
<fischer5@myumanitoba.ca>
Subject: Winnipegosis mooring

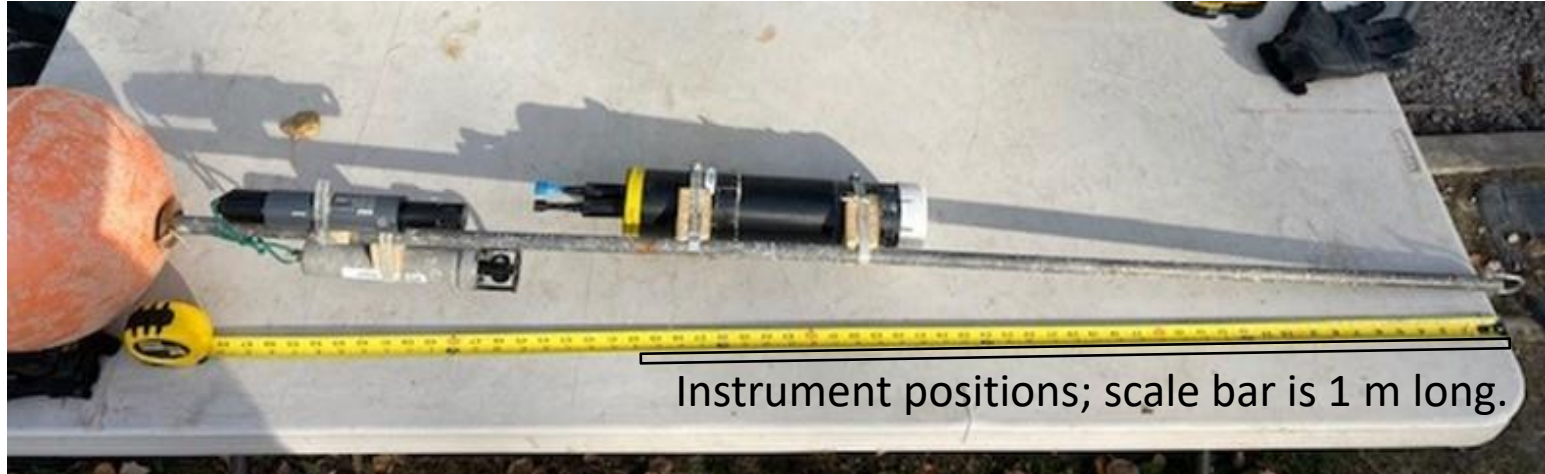
Folks. I successfully **installed the lake Winnipegosis overwintering mooring yesterday**. Photographs are attached here. Measurements and sensor ID numbers can be taken directly from the photographs. The sensor mooring pole Base sits about 20 cm above the anchor. The mooring was installed in 4.9 m of water. I have the Lat and long for the location and will forward.

Mooring is oriented north south - north anchor has the sensors; south anchor has the float.

I came up with a two anchor line system that has a float that lifts the line off the bottom. I intend to drag for the morning next spring as soon as the ice comes off. I also collected one water sample - no lugol sample as I don't have the correct sample bottles.

I hope to install a smaller overwintering mooring in Lake waterhen once the storm passes likely this weekend.

LWO deployment



LWO deployment



From: David Barber
Sent: October 19, 2021 1:14 PM
To: Claire Herbert
Cc: Greg McCullough
Subject: Waterhen overwintering mooring

Hi folks.

I **installed the overwintering mooring in Lake Wateren**; photos attached with serial numbers of sensors and depths and it has the following particulars:

installed Saturday October 16, 1600 hrs.

Salinity, Temperature and conductivity.

installed in 3M of water just north of where the summer mooring usually goes.

WAT2021a for NW end of line, WAT2021b for NE end of the line.

52.06903N, 99.56618W

I will look to recover immediately upon ice off next spring for both Waterhen and Winnipegosis.

Best..DB

LWH deployment



Instrument positions; scale bar is 1 m long.

LWH deployment

