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## SAMI<sup>2</sup> CO<sub>2</sub> Calibration Certificate

January 8, 2020

Serial Number: c64  
RMA Number: 082744  
Technician: BW  
Reagent: btb0282

Table 1: SAMI<sup>2</sup> CO<sub>2</sub> calibration parameters.

A	B	C	$K_{434}$	$K_{620}$	$T_{avg}$	Range (ppm)
0.0510	0.5395	-1.2961	0.7616	1.2143	9.5229	209-1999

Table 2: Blank intensities.

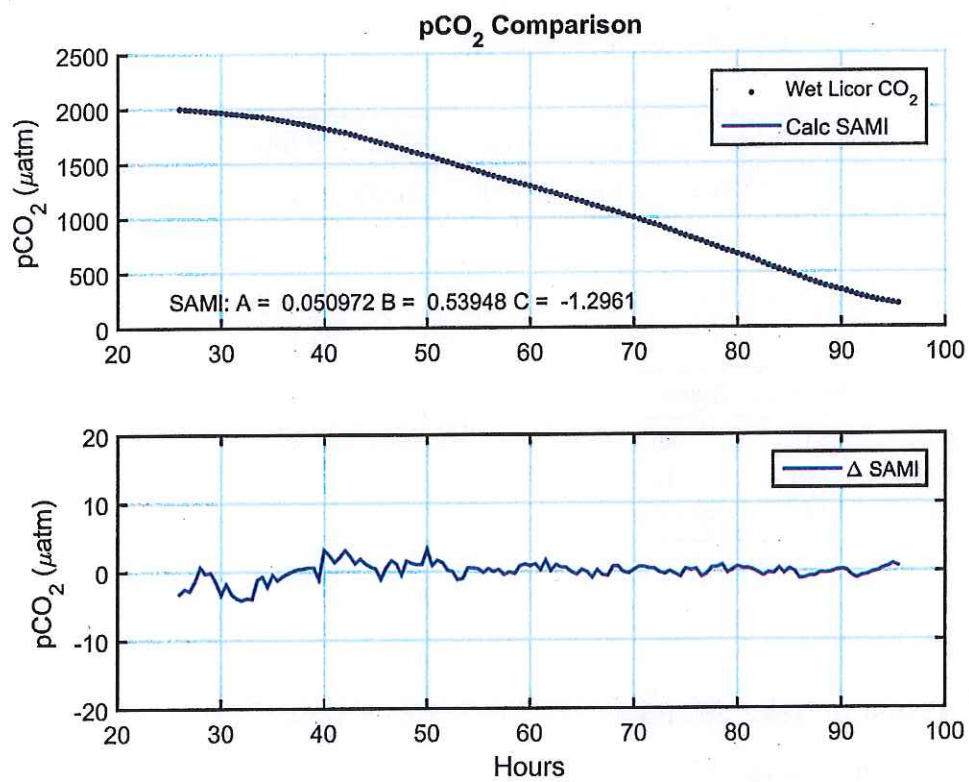
Source	Reference	Signal
Dark	39	86
434 nm	3230	2514
620 nm	1949	2403

## Build Notes

**Pressure Test:** 200 psi

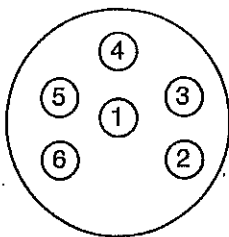
### Modifications:

Refurbishment with OOI PV cable swap  
board repaired .5hr  
extended calibration



# INSULATION RESISTANCE TEST: OOI - UW/OSU UNITS

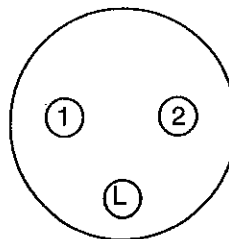
## Communications and Power - TI Bulkhead



Top view of MCBH(WB)-FS-6-TI

Pin	Connection	Switch	
		L	R
1	GND (pwr)	1	0
2	Rx (SAMI)	2	0
3	Tx (SAMI)	3	0
4	V+ (PWR)	4	0
5	RTS	0	1
6	GND (com)	0	2

## Pump Bulkhead



Top view of MCBH(WB)-FS-2-TI

Pin	Connection	Switch	
		L	R
1	GND	0	3
2	PWR +	0	4
L	Locate		

1. Plug test cable(s) into SAMI bulkhead(s) and immerse unit past bulkhead connection. Allow to soak for at least 2 hours.
2. Plug anode into Common on Fluke 1507. Black jumper connects 'Insulation' to box banana receptacle.
3. Set Fluke 1507 to 50V range and proceed to test each switch position in table below by pressing the 'Test' button. Hold 'Test' button until reading stabilizes. Record the insulation resistance value in table. Note that one of the switches is zero in each condition.
4. If out of spec ( $<10\text{ M}\Omega$ ), contact customer w/r/t replacement of suspected parts (typically penetrator, bulkhead or biofouling cable).
5. Replace suspected part and re-test if needed.

Connection	Left Switch	Right Switch	Resistance (MegaOhms)	Re-test Resistance (MegaOhms)
GND	1	0	>55	>55
Rx	2	0	>55	>55
Tx	3	0	>55	>55
V+	4	0	>55	>55
RTS	0	1	>55	>55
GND	0	2	>55	>55
GND - Pump	0	3	>55	>55
V+ - Pump	0	4	>55	>55

UNIT #

C64

DATE

1-14-20

Technician Signature

Notes:

8hr & 30hr test