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SAMI^2 CO_2 Calibration Certificate

December 30, 2019

Serial Number: c116
RMA Number: NA'
Technician: BW
Reagent: btb0278

Table 1: SAMI^2 CO_2 calibration parameters.

A	B	C	K_{434}	K_{620}	T_{avg}	Range (ppm)
0.0723	0.5023	-1.3099	0.7311	1.2579	3.7634	202–1497

Table 2: Blank intensities.

Source	Reference	Signal
Dark	53	60
434 nm	3199	2361
620 nm	1664	2087

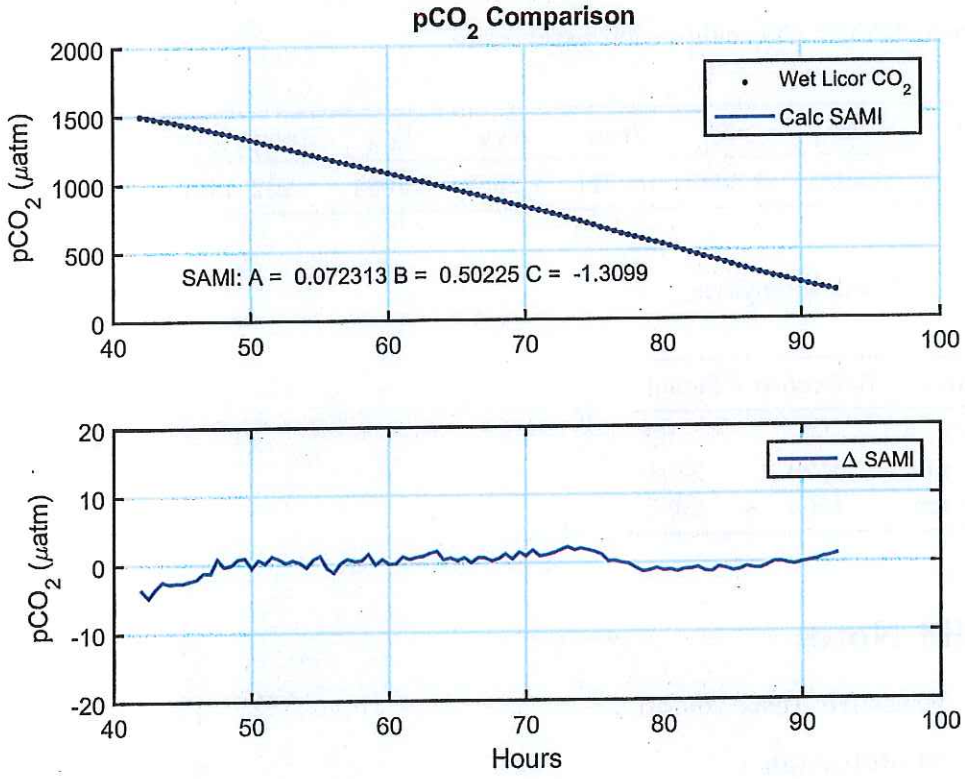
Build Notes

Pressure Test: 200 psi

Modifications:

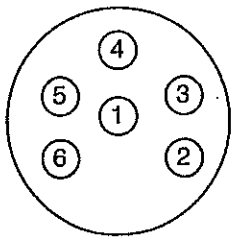
Re-Cal only

200-1500


pCO2 Comparison
Wet Licor CO2
Calc SAMI
SAMI: A = 0.072313 B = 0.50225 C = -1.3099
pCO2 (µatm)
2000
1500
1000
500
0
40
50
60
70
80
90
100
Δ SAMI
pCO2 (µatm)
20
10
0
-10
-20
Hours

INSULATION RESISTANCE TEST: OOI - UW/OSU UNITS

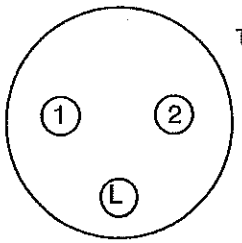
Communications and Power - TI Bulkhead



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

Pin	Connection	Switch L	Switch 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	Switch 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 MΩ), 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		
Tx	3	0		
V+	4	0		
RTS	0	1		
GND	0	2		
GND - Pump	0	3	N/A	N/A
V+ - Pump	0	4		

UNIT # C 116

DATE 11/14/19

Technician Signature

Notes: