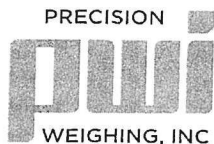


Please gather the following and email to me asap or by February 3rd:

1. A copy of your NIST thermometer certificate, a copy of the worksheet that shows the ice point check and the yearly calibrations on working thermometers.
2. Temperature logs for the Incubator and Fridge (2months)
3. A photo of the commercial pH buffer labels for each 4, 7, and 10.
4. A record of the pH calibration showing the slope.
5. A copy of your autoclave log including your quarterly timer check and the bioindicator checks
6. A copy of the bleach log you are using for positive waste
7. A copy of the record showing the UV light replacement
8. A copy of the Bromothymol Blue residue test
9. A record of the bottle sterility tests being performed.
10. A media and chemical receipt log
11. A copy of your 2020 IDEXX sterile water Certificates of Analysis
12. A photo of your conductivity standard
13. A copy of your SOP for Total Coliform and E.coli procedure
14. A record of the performance check for the Colilert media used in 2019 and 2020 (E.coli, Kleb, Pseud, and sterility)
15. A photo of your Colilert color comparator Single-bottle and quanti-tray, showing the label with lot # and expiration
16. A photo of the sterility test broth you are using-Tryptic Soy Broth or Nutrient Broth- showing lot number and expiration
17. A record of the quanti-tray dye checks for 2020
18. A record of the tray sterility being tested
19. A record of the quanti-tray worksheet showing samples were set up and read properly with QCs performed
20. An example of Nitrate run complete with all QCs
21. A photo of the primary and secondary stock standard for Nitrate
22. A copy of the traceable certificate for the weight set
23. A copy of the monthly and daily weight checks
24. An example of sample receipt temperatures
25. A copy of the QA plan signature page
26. A copy of the SOPs signature page
27. A copy of the standards/spike traceability log for 4500NO3-D



Precision Weighing
1949 Evans Road
Cary, North Carolina 27513
Phone: (919) 678-0077 * Fax: (919) 678-0078
Email: pweighing@aol.com

Client:
ETS Inc.

Contact:
Jim Sumner

Department:
Lab

Description: Digital Thermometer
Instrument ID: 61786906
Manufacturer: Fisher Scientific
Model: 15-078-2
Calibration Interval: Annually

Calibration SOP: 2020 Rev 1.1
Serial Number: 61786906
Operating Range: 0 to 180 °C
Instrument Range: -350 to 2200 °C
Calibration Tolerance: +/- 1 deg C

Calibration Notes: Nominal Targets are -2 and 8 Degrees Celsius

Calibration Data ("As left" data is identical to "As found" data, if "As left" is blank)

Test Points	Units	Standard	As Found	Error	As Left	Error	Pass/Fail
0	°C	0.0002	0.0	-0.0002			Pass
20	°C	20.0551	20.0	-0.0551			Pass
25	°C	25.0512	25.0	-0.0512			Pass
35	°C	35.0541	35.0	-0.0541			Pass
44.5	°C	44.5545	44.5	-0.0545			Pass
60	°C	60.0729	60.0	-0.0729			Pass
105	°C	104.787	105.1	0.313			Pass
150	°C	149.449	150.1	0.651			Pass
180	°C	179.278	179.9	0.622			Pass

Instrument Found in Tolerance?

Yes

Instrument Left in Tolerance?

Yes

Calibration Date:	13 Nov 20	Calibration Due Date:	November 21
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Test Standards:

Digital Thermometer

Standard ID:

170431637

Expiration Date:

March 21

Technicians Remarks:

Battery replaced

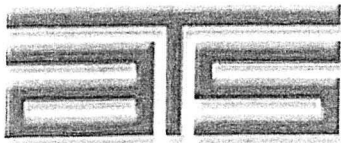
Calibration Performed By:

Alan S. Lee

13 Nov 20

Approved Signature:

Jim Sumner



Applied Technical Services
Certificate of Calibration
Certificate #2773536



Customer:

Precision Weighing - Cary
1949 Evans Road
Cary, NC 27513

Calibration Location:

Applied Technical Services
1049 Triad Court
Marietta, GA 30062

Instrument Information:

Manufacturer: Control Company (Traceable)
Model Number: 15-081-102
Description: Thermometer, Digital W/Probe
Asset Number: 170431637
Serial Number: 170431637
PO Number: 14879

Calibration Information/Results:

As Found Condition : In Tolerance - See Remarks
Action Taken / As Left: In Tolerance - No Adjustment
Temperature: 67° F
Humidity: 51% RH
Calibration Date: 28-Mar-2020
Calibration Due Date: 31-Mar-2021
Calibration Interval: 12 Months

Calib. Procedure: ATS-1007 Rev 2: Calibration of RTD Thermometer as a System

This instrument has been calibrated using primary or secondary standards whose calibration is traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) or applicable ASTM specification number for hardness testing equipment. Some measurements are traceable to natural, physical constants, consensus standards, or ratio type measurements.

The reported expanded measurement uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a confidence level of approximately 95%. This calibration certificate may contain data that is not covered by the Scope of Accreditation. The unaccredited test points, where applicable, are indicated by an asterisk (*), or confined to clearly marked sections. Functional tests are not accredited. The expanded measurement uncertainty is not considered when determining in-tolerance or out-of-tolerance conditions. Results are reviewed, if applicable, to establish where any measurement results exceeded the stated calibration tolerance and to communicate results by means of this certificate.

All calibrations are performed in accordance with the ATS Quality Manual QM1, Rev. 17, dated 03/16/20. Applied Technical Services, Inc.'s Quality System complies with the applicable requirements of ANSI/NCCL Z540-1, ISO 9001:2015, 10CFR50 Appendix B, 10CFR Part 21, and ISO/IEC 17025:2017. The reported data is valid only at the time of the test and related only to the item calibrated. Calibration due dates appearing on this certificate and calibration label are determined by the client and do not imply continued conformance to specifications. This certificate shall not be reproduced except in full, without written permission of Applied Technical Services, Inc.

Technical Remarks:

Asset failed to meet the -80, 100, 200, 300°C test point accuracies. Tolerances widened as per customer request. POC: S. Brabble (03/28/2020).

Calibrated By: *Wood, Tonya M*
Name

Calibration Tech
Title

Calibration Equipment Utilized

Standard I.D.	Mfg.	Model No.	Description	Serial	Cal. Date	Due Date
ATS-04304	Fluke	1529 CHUB E-4	Thermometry System	B1B548	10/30/2019	10/30/2020
ATS-05029	Iso-Tech	MILLIK	Thermometry System	32175-4	02/18/2020	05/18/2020
ATS-07688	Rosemount	162C	Thermometer Probe - SPRT	987	01/09/2020	01/09/2021
ATS-08451	Rosemount	162C	Thermometer Probe - SPRT	854	06/06/2019	06/06/2020
ATS-08506	Rosemount	162C	Thermometer Probe - SPRT	863	02/04/2020	02/04/2021

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1049 Triad Court
Marietta, GA 30062

Phone 770 423-1400 www.atslab.com

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Calibration Data

FUNCTION TESTED	Nominal Value	CALIBRATION TOLERANCE	As Found	Out of Tol	As Left
Temperature Accuracy	-80.000 °C	-80.500 to -79.500 °C [EMU 0.25 °C]	-79.888		Same
	0.000 °C	-0.500 to 0.500 °C [EMU 0.05 °C]	-0.023		Same
	100.000 °C	99.500 to 100.500 °C [EMU 0.05 °C]	100.142		Same
	200.000 °C	199.500 to 200.500 °C [EMU 0.05 °C]	199.607		Same
	300.000 °C	299.500 to 300.500 °C [EMU 0.05 °C]	299.861		Same

End Of Report

Test Number: 2773536 Asset Number: 170431637 Desc: Control Company (Traceable) / 15-081-102, Thermometer, Digital W/F

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1049 Triad Court
Marietta, GA 30062

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Page 2 of 2

Thermometer Calibration

Traceable Thermometer:	Fisher Scientific Digital Thermometer	Date:	12-23-20
Probe Serial number:	61786906	Analyst:	jk
Meter Serial number:	61789314		
Calibration date:	Probe and Meter: 11-13-20	Ice Point of Traceable Thermometer:	0.0
Re-calibration due:	Probe and Meter: 11-2021		

Thermometer Serial Number	Location	Location Serial Number	Thermometer Temperature (°C)	Traceable Thermometer Temperature (°C)	Correction Factor (°C)
-----	Refrigerator # 1	BA64722418	Not in use.		
96-01587	Refrigerator # 2	BA65013194	2.1	2.1	0.0
96-01566	Refrigerator # 3	BA11411547	3.9	3.9	0.0
6959	Refrigerator # 4 TOP	WA42501619	2.9	2.9	0.0
6916	Refrigerator # 4 BOTTOM	WA42501619	3.0	3.0	0.0
4565	Refrigerator # 5 TOP	WA42500397	3.3	3.3	0.0
6315	Refrigerator # 5 BOTTOM	WA42500397	3.0	3.0	0.0
95-02120	Refrigerator - Algae/YWT	E2001648367	3.1	3.1	0.0
WB72043714	BOD Incubator # 1	WB72043714	Calibrated to 20.0°C		
7126	BOD Incubator # 1 Thermometer	WB72043714	20.0	20.0	0.0
WB94157442	BOD Incubator # 2	WB94157442	Calibrated to 20.0°C		
7049	BOD Incubator # 2 Thermometer	WB94157442	20.6	20.6	0.0
WB22114719	BOD Incubator # 3 Previous TOXIC # 3	WB94157442	Calibrated to 20.0°C		
8520	BOD Incubator # 3 Thermometer	WB94157442	20.0	20.0	0.0
WB42676093	Reagent Incubator # 1	WB42676093	Calibrated to 25.0°C		
5030	Reagent Incubator # 1	WB42676093	25.4	25.4	0.0
WB41340472	Toxicity Incubator # 1	WB41340472	Calibrated to 25.0°C		
160724968	Toxicity Incubator # 1 MIN/MAX	WB41340472	24.8	25.3	+0.5
6272	Toxicity Incubator # 1 TOP	WB41340472	24.5	24.5	0.0
4673	Toxicity Incubator # 1 BOTTOM	WB41340472	25.3	25.3	0.0
WB22114693	Toxicity Incubator # 2	WB22114693	Calibrated to 25.0°C		
130761061	Toxicity Incubator # 2 MIN/MAX	WB22114693	24.5	24.5	0.0
4676	Toxicity Incubator # 2 TOP	WB22114693	24.3	24.3	0.0
4755	Toxicity Incubator # 2 BOTTOM	WB22114693	24.5	24.5	0.0
WB95219633	Toxicity Incubator # 4	WB95219633	Calibrated to 25.0°C		
160761060	Toxicity Incubator # 4 MIN/MAX	WB95219633	24.9	24.7	-0.2
4547	Toxicity Incubator # 4 TOP	WB95219633	25.0	25.0	0.0
6216	Toxicity Incubator # 4 BOTTOM	WB95219633	24.7	24.7	0.0

Note: If correction factor is $\geq 1.0^{\circ}\text{C}$, the thermometer must be taken out of service.

Thermometer Calibration

Traceable Thermometer:	Fisher Scientific Digital Thermometer	Date:	12-23-20
Probe Serial number:	61786906	Analyst:	<i>[Signature]</i>
Meter Serial number:	61789314		
Calibration date:	Probe and Meter: 11-13-20		
Re-calibration due:	Probe and Meter: 11-2021		

Thermometer Serial Number	Location	Location Serial Number	Thermometer Temperature (°C)	Traceable Thermometer Temperature (°C)	Correction Factor (°C)
WB60643874	Toxicity Incubator # 5	WB60643874	Calibrated to 25.0°C		
160761035	Toxicity Incubator # 5 MIN/MAX	WB60643874	26.4	25.9	-0.5
6406	Toxicity Incubator # 5 TOP	WB60643874	25.3	25.3	0.0
4595	Toxicity Incubator # 5 BOTTOM	WB60643874	25.9	25.9	0.0
WB42667925	Toxicity Incubator # 6	WB42667925	Calibrated to 25.0°C		
160761056	Toxicity Incubator # 6 MIN/MAX	WB42667925	25.1	25.4	+0.3
8515	Toxicity Incubator # 6 TOP	WB42667925	25.1	25.1	0.0
8472	Toxicity Incubator # 6 BOTTOM	WB42667925	25.4	25.4	0.0
WB42668033	Toxicity Incubator # 7	WB42668033	Calibrated to 25.0°C		
160724990	Toxicity Incubator # 7 MIN/MAX	WB42668033	24.7 25.1	25.4 25.0 ¹²⁻²³⁻²⁰	+0.3
1526	Toxicity Incubator # 7 TOP	WB42668033	24.6	24.6	0.0
4767	Toxicity Incubator # 7 BOTTOM	WB42668033	25.0	25.0	0.0
6934	Bacteria Incubator # 1 LEFT	11AX-4	35.1	35.1	0.0
8490	Bacteria Incubator # 1 RIGHT	11AX-4	35.4	35.4	0.0
14-985B5	60°C Oven	TA180	60	60.1	0
TSS-1	105°C Oven	1000136	105	105.0	0
22332	180°C Oven	P-6	180	179.9	0
602111280	Water Bath # 1	602111280	Calibrated to 44.5°C		
6333	Water Bath # 1 Thermometer	602111280	44.5	¹²⁻²³⁻²⁰ 44.5	0.0
124602-598	Water Bath # 2	124602-598	Calibrated to 44.5°C		
8521	Water Bath # 2 Thermometer	124602-598	44.5	44.5	0.0
92020006723	COD Reactor # 1	92020006723	Calibrated to 150°C		
COD1	COD Reactor # 1 Thermometer	92020006723	150	149.7	0
18D104324, Probe lot: 18C101023	Salinity Meter, YSI PRO30	18D104324	25.0	25.0	0.0
Probe: 0655815, Lot 12M 100663	DO Meter, YSI 52CE	08A100271	23.0	23.0	0.0

Note: If correction factor is $\geq 1.0^\circ\text{C}$, the thermometer must be taken out of service.

TSS2

180°C STERILIZATION
OVEN

¹²⁻²³⁻²⁰
TSS2
482

Thermometer Calibration

Traceable Thermometer:	Fisher Scientific Digital Thermometer	Date:	12-23-20
Probe Serial number:	61786906	Analyst:	<i>jk</i>
Meter Serial number:	61789314		
Calibration date:	Probe and Meter: 11-13-20		
Re-calibration due:	Probe and Meter: 11-2021		

Thermometer Serial Number	Location	Location Serial Number	Thermometer Temperature (°C)	Traceable Thermometer Temperature (°C)	Correction Factor (°C)
130664642	Toxicity General Use (Kangaroo Digital)	Not applicable	24.8	25.0	+0.2
111898405	Toxicity General Use (Kangaroo Digital)	Not applicable	24.6	25.0	+0.4
111898409	Toxicity General Use (Kangaroo Digital)	Not applicable	24.7	25.0	+0.3
130664685	Toxicity General Use (Kangaroo Digital)	Not applicable	24.8	25.0	+0.2
130664705	Toxicity General Use (Kangaroo Digital)	Not applicable	24.7	25.0	+0.3
130664679	Toxicity General Use (Kangaroo Digital)	Not applicable	24.6	25.0	+0.4
111898411	Toxicity General Use (Kangaroo Digital)	Not applicable	25.4	25.0	-0.4
160609936	Toxicity General Use (Kangaroo Digital)	Not applicable	25.0	25.0	0.0
111898250	Toxicity General Use (Kangaroo Digital)	Not applicable	24.6	25.0	+0.4
111898404	Toxicity General Use (Kangaroo Digital)	Not applicable	24.8	25.0	+0.2
160161442 111898405 11-13-20	Toxicity General Use, Fish Culture (MIN/MAX Digital)	Not applicable	25.7	25.0	-0.7
PROBE1	General Use (Digital) <i>SERIAL #15 ASSIGNED</i>	Not applicable	24.5	25.0	+0.5
PROBE2	General Use (Digital)	Not applicable	24.9	25.0	+0.1
PROBE3	General Use (Digital)	Not applicable	24.8	25.0	+0.2
PROBE4	General Use (Digital)	Not applicable	24.8	25.0	+0.2
PROBE5	General Use (Digital)	Not applicable	24.6	25.0	+0.4

Note: If correction factor is $\geq 1.0^{\circ}\text{C}$, the thermometer must be taken out of service.

Thermometer Calibration

Traceable Thermometer:	Fisher Scientific Digital Thermometer	Date:	12-23-20
Probe Serial number:	61786906	Analyst:	<i>[Signature]</i>
Meter Serial number:	61789314		
Calibration date:	Probe and Meter: 11-13-20		
Re-calibration due:	Probe and Meter: 11-2021		

Thermometer Serial Number	Location	Location Serial Number	Thermometer Temperature (°C)	Traceable Thermometer Temperature (°C)	Correction Factor (°C)
122164697	General Use (Digital)	Not applicable	0.0	0.2	+0.2
			25.1	25.0	-0.1
160928622	General Use (Digital)	Not applicable	-0.3	0.2	+0.5
			24.5	25.0	+0.5
160928646	General Use (Digital)	Not applicable	-0.3	0.2	+0.5
			24.4	25.0	+0.6
160928612	General Use (Digital)	Not applicable	-0.4	0.2	+0.6
			24.4	25.0	+0.6
170587688	General Use (Digital)	Not applicable	0.0	0.2	+0.2
			24.8	25.0	+0.2
170754920	General Use (Digital)	Not applicable	DISCARDED	12-23-20	>1.0
			DISCARDED	12-23-20	>1.0
170754975	General Use (Digital)	Not applicable	0.4	0.2	-0.2
			24.9	25.0	+0.1
170755003	General Use (Digital)	Not applicable.	0.2	0.2	0.0
			24.8	25.0	+0.2
181656959	General Use (Digital)	Not applicable.	-0.1	0.2	+0.3
			25.1	25.0	-0.1
181656948	General Use (Digital)	Not applicable.	+0.7	0.2	-0.5
			25.2	25.0	-0.2
181670536	General Use (Digital)	Not applicable.	DISCARDED	12-23-20	>1.0
			DISCARDED	12-23-20	>1.0
181870570	General Use (Digital)	Not applicable.	DISCARDED	12-23-20	>1.0
			DISCARDED	12-23-20	>1.0
122164631	General Use (Digital)	Not applicable.	0.0	0.2	+0.2
			25.2	25.0	-0.2

Note: If correction factor is $\geq 1.0^{\circ}\text{C}$, the thermometer must be taken out of service.

Thermometer Calibration

Traceable Thermometer:	Fisher Scientific Digital Thermometer	Date:	12-23-20
Probe Serial number:	61786906	Analyst:	<i>JL</i>
Meter Serial number:	61789314		
Calibration date:	Probe and Meter: 11-13-20		
Re-calibration due:	Probe and Meter: 11-2021		

Thermometer Serial Number	Location	Location Serial Number	Thermometer Temperature (°C)	Traceable Thermometer Temperature (°C)	Correction Factor (°C)
GEN1	General Use (Digital) (serial number assigned)	Not applicable.	-0.2	0.2	+0.4
			24.8	25.0 25.2 <i>11-23-20 H</i>	+0.2
GEN2	General Use (Digital) (serial number assigned)	Not applicable.	-0.1	0.2	+0.3
			24.9	25.0	+0.1
GEN3	General Use (Digital) (serial number assigned)	Not applicable.	25.0	25.0	0.0
			-0.1	0.2	+0.3
GEN4	General Use (Digital) (serial number assigned)	Not applicable.	0.0	0.2	+0.2
			25.0	25.0	0.0
GEN5	General Use (Digital) (serial number assigned)	Not applicable.	0.2 <i>11-23-20 H</i> 0.0	0.2	0.0 <i>11-23-20 H</i> +0.2
			25.0	25.0	0.0
GEN6	General Use (Digital) (serial number assigned)	Not applicable.	0.2	0.2	0.0
			25.2	25.0	-0.2
4934	General Use (Mercury)	Not applicable	0.2	0.2	0.0
			25.0	25.0	0.0
5017	General Use (Mercury)	Not applicable	0.2	0.2	0.0
			25.0	25.0	0.0
6209	General Use (Mercury)	Not applicable.	0.2	0.2	0.0
			25.0	25.0	0.0
8503	General Use (Mercury)	Not applicable	0.2	0.2	0.0
			25.0	25.0	0.0

Note: If correction factor is $\geq 1.0^{\circ}\text{C}$, the thermometer must be taken out of service.

Bacteria Incubator #1 – Temperature Log (°C)

Month and Year: September 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Bacteria Incubator #1	11AX-4	Calibrated to 35.0°C
Left	6934	0
Right	8490	0

09-02-20 H

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Left	Right			Left	Right
1	0650	JL	34.8	35.0	1343	JL	34.9	35.1
2	0605	JL	34.9	35.0	1323	JL	34.7	34.9
3	0708	JL	34.8	35.0	1407	JL	34.7	34.9
4	0705	JL	34.8	34.9				
5								WE
6								WE
7	0710	JL	35.0	35.2				
8	0730	JL	35.0	35.2	1354	JL	34.9	34.9
9	0610	JL	35.0	35.2	1420	JL	35.0	35.2
10	0715	JL	35.0	35.2	1400	JL	34.7	34.9
11	0705	JL	35.0	35.1				
12								WE
13								WE
14	0725	JL	34.9	35.2	1515	JL	34.8	35.1
15	0615	JL	35.1	35.3	1407	JL	35.0	35.2
16	0615	JL	34.9	35.2	1447	JL	34.7	34.9
17	0715	JL	34.9	35.1	1500	JL	34.8	35.0
18	0715	JL	35.0	35.3	1355	JL	34.6	35.2
19								WE
20								WE
21	0715	JL	35.0	35.3	1440	JL	34.8	35.0
22	0720	JL	35.0	35.3	1445	JL	34.9	35.0
23	0600	JL	35.0	35.2	1445	JL	34.8	34.9
24	0710	JL	35.0	35.1	1415	JL	35.0	35.0
25	0800	TS	34.9	35.2				
26								WE
27								WE
28	0715	JL	35.0	35.2	1435	JL	35.0	35.1
29	0720	JL	35.0	35.2	1400	JL	34.9	35.1
30	0545	JL	35.0	35.3	1445	JL	34.9	35.1

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Thermometer re-verification against NIST (SN: 61789314): Date: 09-02-20 Analyst: JL

Thermometer SN/Location	Thermometer temperature (°C)	NIST temperature (°C)	Correction factor (°C)
6934 / Left	34.9	34.9	0.0
8490 / Right	35.0	35.0	0.0

Note: Thermometer temperature calibration tags are only replaced if the initial correction factor changes.

Bacteria Incubator #1 – Temperature Log (°C)

Month and Year: October 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Bacteria Incubator #1	11AX-4	Calibrated to 35.0°C
Left	6934	0
Right	8490	0

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Left	Right			Left	Right
1	0645	H	35.3	35.1				
2								
3								WE
4								WE
5	0720	H	35.0	35.3	1435	H	34.7	34.9
6	0530	H	35.0	35.3	1315	H	35.0	35.2
7	0505	H	35.0	35.1	1502	H	34.6	34.9
8	0510	H	35.0	35.1	1450	H	34.8	34.9
9	0630	H	35.0	35.2	1510	H	34.8	34.9
10								WE
11								WE
12	0515	H	35.0	35.2	1435	H	34.6	34.8
13	0505	H	35.0	35.3	1430	H	34.7	34.9
14	0610	H	35.0	35.3	1450	H	34.7	34.9
15	0715	H	35.0	35.2	1445	H	34.8	35.0
16	0705	H	35.0	35.2	1415	H	34.9	35.1
17								WE
18								WE
19	0715	H	35.0	35.3	1430	H	35.1	35.0
20	0610	H	35.0	35.3	1410	H	35.0	35.2
21	0620	H	35.0	35.3	1505	MS	34.7	35.0
22	0720	H	34.9	35.1	1450	H	35.0	35.2
23	0705	H	34.9	35.2				4
24								WE
25								WE
26	0720	H	35.0	35.3	1450	H	35.0	35.2
27	0730	H	35.0	35.2	1415	H	35.0	35.3
28	0610	H	35.0	35.2	1450	H	35.0	35.2
29	0715	H	35.0	35.2	1420	H	35.0	35.3
30	0800	TS	34.9	35.3				4
31								WE

NT
↓

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Comments:

Bacteria Incubator #1 – Temperature Log (°C)

Month and Year: November 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Bacteria Incubator #1	11AX-4	Calibrated to 35.0°C
Left	6934	0
Right	8490	0

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Left	Right			Left	Right
1								WE
2	0720	H	35.0	35.4	1347	H	35.0	35.0
3	0545	H	35.1	35.4	1410	H	35.0	35.0
4	0515	H	35.1	35.3	1350	H	35.0	35.2
5	0715	H	35.1	35.3	1430	H	34.9	35.1
6	0725	H	35.0	35.2	1243	H	34.8	35.2
7								WE
8								WE
9	0715	H	35.1	35.4	1400	H	34.8	35.1
10	0600	H	35.0	35.3	1347 ¹¹⁰²⁰	H	34.9	35.3
11	0610	H	35.0	35.3	1337	H	34.7	35.1
12	0530	H	35.1	35.3	1425	H	34.9	35.1
13	0700	H	35.0	35.3				
14								WE
15								WE
16	0710	H	35.0	35.4	1405	H	35.0	34.8
17	0830	H	35.1	35.3	1430	H	34.9	35.1
18	0630	H	35.0	35.3	1415	H	34.9	35.1
19	0715	H	35.0	35.3	1430	H	34.8	35.0
20	0715	H	35.0	35.3				
21								WE
22								WE
23	0715	H	35.0	35.4	1430	H	34.9	35.1
24	0700	H	35.0	35.3	1410	H	34.9	35.1
25	0555	H	35.0	35.3				
26								
27								
28								WE
29								WE
30	0735	H	35.0	35.4	1450	H	35.0	35.2

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Comments:

Bacteria Incubator #1 – Temperature Log (°C)

Month and Year: December 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Bacteria Incubator #1	11AX-4	Calibrated to 35.0°C
Left	6934	0
Right	8490	0

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Left	Right			Left	Right
1	0645	J	35.0	35.4	1404	J	35.0	35.2
2	0615	J	35.0	35.4	1430	J	34.9	35.0
3	0610	J	35.0	35.3	1330	J	35.0	35.2
4	0705	J	35.0	35.3				
5								WE
6								WE
7	0705	J	35.1	35.4	1355	J	34.7	35.0
8	0615	J	35.1	35.4	1338	J	34.9	35.0
9	0515	J	35.1	35.3	1344	J	35.0	35.3
10	0610	J	35.1	35.3	1345	J	35.0	35.2
11	0615	J	35.1	35.3				
12								WE
13								WE
14	0615	J	35.1	35.3	1435	J	35.0	35.2
15	0605	J	35.0	35.3	1328	J	35.0	34.9
16	0600	J	35.1	35.4	1435	J	35.0	35.1
17	0710	J	35.1	35.4	1415	J	35.0	35.2
18	0800	TS	34.9	35.3				
19								WE
20								WE
21	0720	J	35.1	35.4	1420	J	35.0	35.3
22	0615	J	35.1	35.4	1405	J	34.9	35.2
23	0540	J	35.1	35.4				
24								H
25								H
26								WE
27								WE
28	0715	J	35.0	35.3				
29	0900	J	35.1	35.4	1440	J	35.1	35.3
30	0545	J	35.1	35.4				
31								

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Comments:

Refrigerator #5 – Temperature Log (°C)

Month and Year: September 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Refrigerator #5	WA42500397	Calibrated to 0.0 to 6.0°C
Top	4565	0 ✓
Bottom	6315	0

01-01-20 H

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Top	Bottom			Top	Bottom
1	0650	J	2.9	2.6	1405	J	3.3	3.0
2	0605	J	1.7	1.5	1423	J	3.1	2.7
3	0708	J	2.0	1.8	1407	J	2.2	2.0
4	0705	J	1.9	2.0				
5								WE
6								WE
7	0710	J	2.0	1.8				
8	0730	J	2.8	2.4	1425	J	3.3	3.1
9	0610	J	2.4	2.2	1420	J	2.4	2.7
10	0715	J	3.0	2.7	1400	J	2.6	2.3
11	0705	J	2.9	2.6				
12								WE
13								WE
14	0725	J	3.0	2.6	1545	J	2.6	2.4
15	0615	J	2.3	2.0	1445	J	2.9	2.8
16	0615	J	2.7	2.5	1447	J	3.1	3.3
17	0715	J	2.6	1.9	1500	J	3.0	2.7
18	0715	J	2.3	2.0	1355	J	2.0	2.7
19								WE
20								WE
21	0715	J	2.9	2.7	1446	J	2.7	2.5
22	0720	J	2.2	2.1	1450	J	2.9	2.4
23	0600	J	2.5	2.2	1445	J	1.9	1.7
24	0710	J	3.1	3.0	1415	J	3.0	2.7
25	0800	TS	2.5	3.0				
26								WE
27								WE
28	0715	J	2.6	2.4	1435	J	1.9	2.0
29	0705	J	2.1	2.2	1400	J	3.0	3.6
30	0545	J	3.6	3.3	1445	J	2.5	2.3

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Thermometer re-verification against NIST (SN: 61789314): Date: 09-07-20

Analyst: J

Thermometer SN/Location	Thermometer temperature (°C)	NIST temperature (°C)	Correction factor (°C)
4565 / Top	1.7	1.7	6.0
6315 / Bottom	1.5	1.5	0.0

Note: Thermometer temperature calibration tags are only replaced if the initial correction factor changes.

Refrigerator #5 – Temperature Log (°C)

Month and Year: October 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Refrigerator #5	WA42500397	Calibrated to 0.0 to 6.0°C
Top	4565	0
Bottom	6315	0

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Top	Bottom			Top	Bottom
1	0645	J	2.1	2.0				
2								
3								WE
4								WE
5	0720	J	2.9	2.6	1435	J	2.2	2.1
6	0530	K	2.8	2.5	1515	J	2.7	2.4
7	0710 0505	J	2.7	2.4	1502	J	3.1	3.2
8	0510	J	3.1	3.0	1450	K	2.4	2.2
9	0630	J	3.1	2.7	1510	K	3.2	3.0
10								WE
11								WE
12	0515	K	3.7	3.5	1435	J	1.7	2.7
13	0505	K	3.6	3.3	1430	J	3.2	3.0
14	0610	J	3.0	2.7	1450	K	2.4	2.2
15	0715	J	2.7	2.5	1445	J	2.9	2.6
16	0705	K	2.7	2.4	1415	J	2.7	2.5
17								WE
18								WE
19	0715	J	1.9	1.7	1430	K	2.1	2.0
20	0610	K	2.3	2.1	1420	J	3.9	3.6
21	0620	J	2.4	2.2	1502	J	2.6	3.1
22	0720	J	2.6	2.3	1450	J	2.5	2.3
23	0705	J	2.2	2.0				
24								WE
25								WE
26	0720	K	2.7	2.5	1450	J	2.2	2.0
27	0730	J	1.9	1.7	1415	J	3.9	3.6
28	0610	J	2.2	1.7	1430	J	3.8	3.5
29	0715	J	2.6	2.1	1420	J	3.6	3.5
30	0800	TS	2.5	2.9	0800	J	3.2	3.0
31								WE

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Comments:

Refrigerator #5 – Temperature Log (°C)

Month and Year: November 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Refrigerator #5	WA42500397	Calibrated to 0.0 to 6.0°C
Top	4565	0
Bottom	6315	0

Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Top	Bottom			Top	Bottom
1								WE
2	0720	H	3.0	2.8	1425	H	2.2	3.0
3	0545	H	2.6	2.3	1410	H	3.9	3.7
4	0515	H	2.8	2.4	1350	H	3.6	3.3
5	0715	H	2.6	2.4	1430	H	2.9	3.1
6	0725	H	2.7	2.4	1235	H	2.6	2.4
7								WE
8								WE
9	0715	H	2.7	2.5	1400	H	2.6	2.4
10	0600	H	2.6	2.3	1415	H	3.6	3.4
11	0610	H	2.2	2.0	1410	H	2.2	2.0
12	0730	H	2.3	2.0	1425	H	2.3	2.1
13	0700	H	2.7	2.4				H
14								WE
15								WE
16	0715	H	2.2	2.0	1405	H	2.6	2.3
17	0830	H	2.7	2.5	1430	H	2.7	2.6
18	0630	H	3.2	3.0	1415	H	2.8	2.5
19	0715	H	2.0	2.1	1430	H	2.7	2.4
20	0715	H	2.2	2.1				H
21								WE
22								WE
23	0715	H	2.6	2.4	1430	H	2.7	2.5
24	0700	H	2.1	2.0	1410	H	3.6	3.3
25	0555	H	2.0	1.8				
26								
27								
28								WE
29								WE
30	0735	H	2.9	2.8	1450	H	2.9	3.1

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

H NS
↓

Comments:

Refrigerator #5 – Temperature Log (°C)

Month and Year: December 2020

Initial thermometer calibration date: 12-19-19 by J. Sumner

Thermometer location	Serial number	Correction factor (°C)
Refrigerator #5	WA42500397	Calibrated to 0.0 to 6.0°C
Top	4565	0
Bottom	6315	0

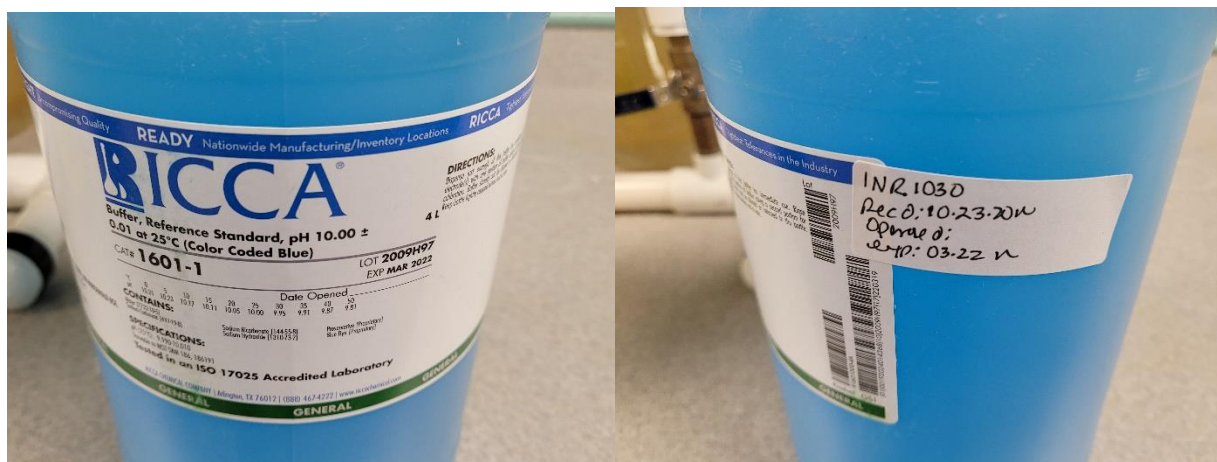
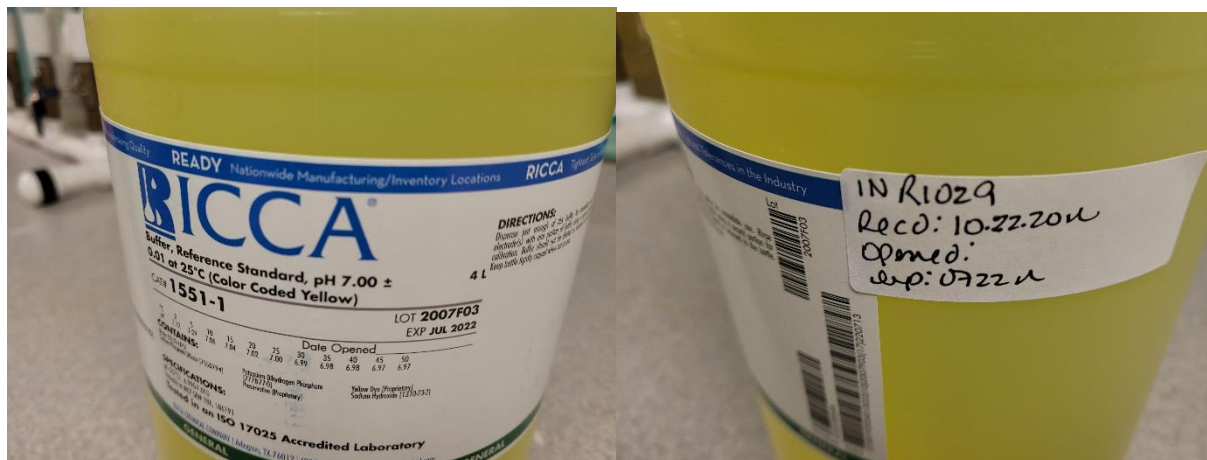
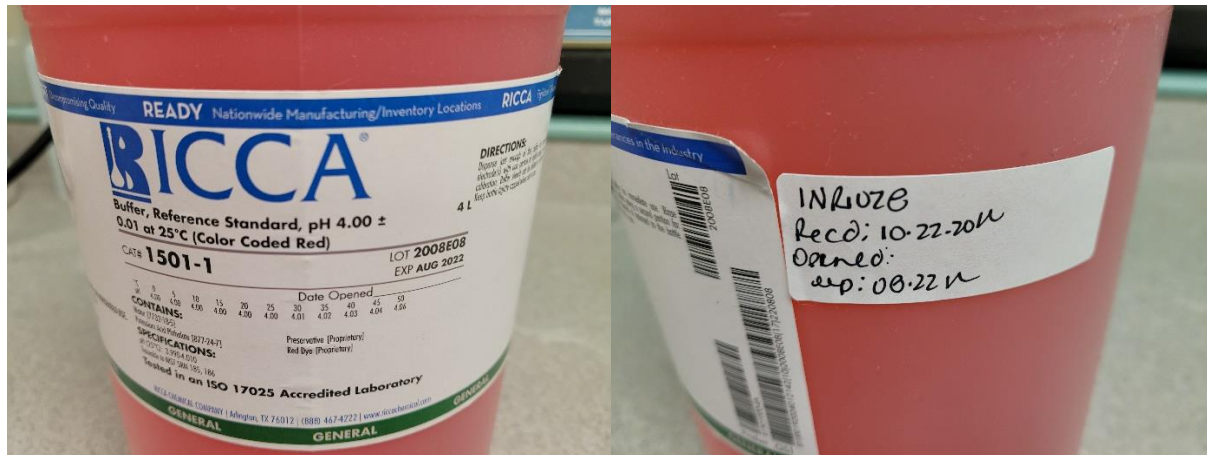
Day	AM Time	Analyst	Location		PM Time	Analyst	Location	
			Top	Bottom			Top	Bottom
1	0645	JL	3.0	2.9	1410	JL	3.7	3.5
2	0615	JL	3.4	3.0	1430	JL	3.0	3.3
3	0610	JL	3.0	2.8	1330	JL	2.8	2.5
4	0705	JL	2.5	2.3				H
5								WE
6								WE
7	0705	JL	2.6	2.4	1355	JL	2.7	2.5
8	0615	JL	2.8	2.7	1430	JL	3.8	3.6
9	0515	JL	2.2	2.1	1415	JL	2.6	2.5
10	0610	JL	2.0	1.7	1345	JL	3.0	2.7
11	0615	JL	3.1	3.0				H
12								WE
13								WE
14	0615	JL	2.0	1.7	1435	JL	2.8	2.3
15	0605	JL	3.0	2.7	1405	JL	3.7	3.4
16	0600	JL	3.4	3.2	1435	JL	3.5	3.3
17	0710	JL	3.1	3.0	1415	JL	2.5	2.3
18	0800	TS	2.6	2.9				H
19								WE
20								WE
21	0720	JL	2.5	2.3	1420	JL	2.2	2.0
22	0615	JL	2.6	2.4	1405	JL	3.7	3.4
23	0540	JL	3.3	3.4				H
24								H
25								H
26								WE
27								WE
28	0715	JL	2.7	2.5				H
29	0900	JL	2.7	2.4	1440	JL	2.9	2.7
30	0520	JL	3.6	3.3				H
31								H

closed
↓

Note: WE = Weekend, H = Holiday, NT = No samples or tests present.

Comments:

pH Standards



Daily Meter Calibration and Standardization

Analyst(s) W TS

Calibration date 01.11.21

Reagent Incubator #1 (Thermometer SN 5030) temperature (°C): 24.6°C (Standards and samples must be warmed to 25.0 ± 1.0°C before taking measurements)

Conductivity (SM 2510 B-2011, Meter: Accumet Model AR20, SN 93312452) RL = 14.9 µmhos/cm

Calibration:

Reference standard	True value (µmhos/cm)	Internal Cell Constant
INSS <u>1912</u>	1000	<u>1.001</u>

Standardization:

Reference standard	True value (TV) (µmhos/cm)	Conductivity corrected to µmhos/cm (C)	% RS = C / TV x 100
INSS <u>1949</u>	14.9	<u>15.7</u>	<u>105.4%</u>
INSS <u>1950</u>	146.9	<u>160</u>	<u>108.9%</u>
INSS <u>1906</u>	500	<u>503</u>	<u>100.6%</u>
INSS <u>1951</u>	717.5	<u>708</u>	<u>98.7%</u>
INSS <u>1952</u>	1412	<u>1390</u>	<u>98.4%</u>
INSS <u>1913</u>	2000	<u>1990</u>	<u>99.5%</u>
INSS <u>1953</u>	6667	<u>6460</u>	<u>96.9%</u>

Salinity (SM 2520 B-2011, Meter: YSI PRO30, SN 18D104324) RL = 1.0 ppt

Calibration:

Reference standard	Initial Salinity (ppt)	Correction (ppt)	Final Salinity (True value = 25.0) (ppt)
INSS <u>1947</u>	<u>24.9</u>	<u>+0.1</u>	<u>25.0</u>

Laboratory control standards:

Reference standard	True value (TV) (ppt)	Salinity ppt (C)	% RS = C / TV x 100
INSS <u>1946</u>	0.71	<u>0.7</u>	<u>98.6%</u>
INSS <u>1948</u>	35.0	<u>35.0</u>	<u>100.0%</u>

Duplicate sample precision:

Sample ID	Conductivity / Salinity corrected to µmhos/cm or ppt	%RPD = $\frac{ (S - D) }{[(S+D)/2]} \times 100$ (acceptable range = ± 10%)
<u>MHSW</u>	S <u>319</u>	
Duplicate	D <u>319</u>	<u>TS 01.11.21</u>

Note: The duplicate sample precision should be performed on an effluent or control sample used for a toxicity test.

Dissolved Oxygen (SM 4500-O G-2011, Meter: YSI Model 52CE, SN 08A100271)

Air calibration:

Ambient temperature (°C)	Initial reading (mg/L)	Correction	Final reading (mg/L)
<u>23.1°C</u>	<u>0.0</u>	<u>-0.01.11.21</u>	<u>0.0</u>

pH (SM 4500-H⁺ B-2011, Meter: Accumet Model AR20, SN 93312452)

Calibration:

	pH 4.00	pH 7.00	Slope (%)
Reference standard number	INR <u>977</u>	INR <u>978</u>	<u>98.0%</u>

Laboratory control standard:

Reference standard	True value (S.U.)	Measured value (S.U.)	Control Limits
INR <u>979</u>	<u>10.00</u>	<u>9.91</u>	<u>9.90 - 10.10</u>

Duplicate sample precision:

Sample ID	pH S.U.	Acceptable range = ± 0.50 S.U.
<u>MHSW</u>	S <u>7.67</u>	
Duplicate	D <u>7.68</u>	<u>0.01</u>

Note: The duplicate sample precision should be performed on an effluent or control sample used for a toxicity test.

Autoclave Sterilization Log

Date	Items Sterilized	Time In Autoclave	Sterilization Cycle		Time Out of Autoclave	Total Time in Autoclave	Maximum Temperature Thermometer Verification (°C)	Analyst	Bio - indicator Used
			PSI	Temperature (°C)					
12.31.20	Filters & cylinders	1015	121	121	1110	55 min	121	MS	NO
01.04.21	LB 1E media	0930	15	121	1030	1 hr	121	KL	YES
01.05.21	Filters & cylinders	1025	15	121	1130	1 hr 5 min	121	MS	NO
01.06.21	filters & cylinders	0820	15	121	1040	2 hr 20 min	121	TS	NO
01.06.21	cylinders	1040	15	121	1140	1 hr	121	TS	NO
01.07.21	Dil. H ₂ O	0830	15	121	0950	1 hr 20 min	121	KD	NO
01.07.21	Dil. H ₂ O	0950	15	121	1040	50 min	121	KD	NO
01.07.21	Dil. H ₂ O	1040	15	121	1200	1 hr 20 min	121	TS	NO
01.07.21	Dil. H ₂ O	1200	15	121	1310	1 hr 10 min	121	TS	NO
01.07.21	Dil. H ₂ O	1310	15	121	1405	55 min	121	KD	NO
01.07.21	Dil. H ₂ O	1405	15	121	1450	45 min	121	MS	NO
01.07.21	filters & cylinders	1450	15	121	1520	30 min	121	TS	NO
01.07.21	algae media	1520	15	121	1645	1 hr 25 min	121	TS	NO
01.08.21	Algae media	0525	15	121	0630	1 hr 5 min	121	KL	NO
01.08.21	Algae media	0630	15	121	0755	1 hr 25 min	121	KL	NO
01.08.21	filters & cylinders	0830	15	121	0920	30 min	121	KL	NO
01.08.21	T. Tubes	0925	15	121	1035	1 hr 10 min	121	KL	NO
01.10.21	Filters & cylinders	1345	15	121	1640	2 hr 55 min	121	KD	NO
01.13.21	algae media	0910	15	121	1010	1 hr	121	KD	NO
01.13.21	algae media	1010	15	121	1125	1 hr 15 min	121	KD	NO
01.13.21	algae media	1125	15	121	1235	1 hr 10 min	121	TS	NO

01.01.21 Quarterly timer
 PSI = 17 Temp = 122 °C
 15 min = 15 min 0850

Quality Control – Bioindicator Spore Ampule Sterilization Confirmation

Month (Ampule Chemical Number)	Sterilization Cycle Date	Initiation			24-hour Check				48-hour Check					
		Date	Time	Analyst	Date	Time	Analyst	Negative Control Color Change (Yes or No)	Positive Control Color Change (Yes or No)	Date	Time	Analyst	Negative Control Color Change (Yes or No)	Positive Control Color Change (Yes or No)
January CHM 150	01-04-21	01-04-21	1031	K	01-05-21	1012	K	-	+	01-05-21	1042	K	-	+
February CHM														
March CHM														
April CHM														
May CHM														
June CHM														
July CHM														
August CHM														
September CHM														
October CHM														
November CHM														
December CHM														

2021 Drinking Water Bacteria Sample Disposal

Samples received in week ending	Date samples disinfected	Analyst	Date samples disposed	Analyst
January 02			01.17.21	K
January 09	01.09.21	KD	01.10.21	KD
January 15	01.16.21	KD	01.17.21	KD
January 23	01.23.21	KD	01.24.21	HS
January 30				
February 06				
February 13				
February 20				
February 27				
March 06				
March 13				
March 20				
March 27				
April 03				
April 10				
April 17				
April 24				
May 01				
May 08				
May 15				
May 22				
May 29				
June 05				
June 12				
June 19				
June 26				

NO SAMPLES

Note: All samples (present or absent for coliform) must be disinfected with approximately 2 mL of bleach per sample volume. Samples must be disinfected for at least 16-hours prior to disposal to the sanitary sewer.

UV Light: Verified by UV meter. Light replaced when intensity is reduced. New light bulb in-house for replacement.



Detergent Residue Check Log (0.04% Bromothymol Blue Indicator)

Date	Analyst	Detergent Residue Check		Indicator CHM #
		Positive (BLUE) Rewash Glassware	Negative (YELLOW/GREEN)	
01.10.21	N	—	✓	INR973
01.11.21(b)	N	—	✓	INR973
01.11.21	N	—	✓	INR973
01.11.21(b)	N	— MS	✓	INR973
01.11.21	N	—	✓	INR973
01.11.21	N	— TS	✓	INR973
01.11.21(h)	TS	— TS	✓	INR973
01.11.21	TS	— MS	✓	INR973
01.11.21(h)	MS	— MS	✓	INR973
01.11.21(h)	MS	— MS	✓	INR973
01.12.21(h)	MS	— MS	✓	INR973
01.12.21(h)	TS	— TS	✓	INR973
01.12.21(b)	MS	— MS	✓	INR973
01.12.21	TS	— KD	✓	INR973
01.12.21(b)	MS	— MS	✓	INR973
01.12.21(h)	KD	— MS	✓	INR973
01.13.21(h)	KD	— KD	✓	INR973
01.14.21	TS	— TS	✓	INR973
01.14.21	TS	— TS	✓	INR973
01.15.21	TS	— TS	✓	INR973
01.17.21	N	—	✓	INR973
01.17.21	N	— TS	✓	INR973
01.18.21(b)	N	— TS	✓	INR973
01.18.21	N	— TS	✓	INR973
01.18.21	TS	— TS	✓	INR973
01.18.21(b)	TS	— MS	✓	INR973
01.19.21	TS	— TS	✓	INR973
01.19.21(b)	MS	— MS	✓	INR973
01.19.21	TS	— TS	✓	INR973
01.19.21(b)	MS	— MS	✓	INR973
01.19.21	TS	— TS	✓	INR973
01.20.21(801201)	MS	— TS	✓	INR973
01.21.21(h)	TS	— TS	✓	INR973
01.21.21(h)	KD	— KD	✓	INR973
01.24.21	MS	— MS	✓	INR973

Note: B = back dishwasher, H = hand washed, No mark = front dishwasher in dish room.

Quality Control – Sample Bottle Sterility

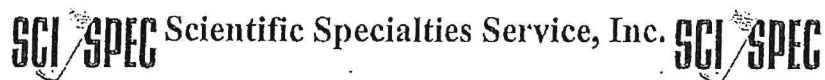
Sample Bottle Information:

Colilert Sample Bottle Source:	SciSpec
Lot number:	0-030.001
Expiration date:	NA
Date received:	08.17.20 15045 X 10000000
Received by (analyst's initials):	W 082220

Sterility Check:

Trypticase Soy Broth INR#: 907 / INCL-1024

Bottle Location	Number of Bottles Tested	Initiation		24-hour Check			48-hour Check		
		Date	Time	Analyst	Date	Time	Analyst	Date	Turbid (+ or -)
Top	75	08.22.20	0039	W	08.23.20	0011	W	08.24.20	0039 W
Middle Row 1	1	1	1	1	1	1	1	1	-
Middle Row 2	1	1	1	1	1	1	1	1	-
Bottom	1	1	1	1	1	1	1	1	-



Certificate of Analysis

Analysis of Lot Number:

Product:

0-038-001

C57004

This certifies that the above lot number was irradiated at a facility operating under a quality system which meets FDA, QSR, ISO 9001 and EN 46001 guidelines. Irradiation time and dosage information is on file and will be provided upon request.

Please keep this certificate for your records.
Alan M. Franta, GM

7201 Standard Dr. * Hanover, MD 21076 * Phone: 800-648-7800 * In Maryland: 410-712-4400 * Fax: 410-712-4401
email: info@scispec.com * website: www.scispec.com

Certificate Of Processing

Prepared for SCIENTIFIC SPECIALTIES SERVICE INC



Gamma Process Run ID 227167A


<u>Product Code</u>	<u>Product Lot Number</u>	<u>Quantity</u>	<u>UOM</u>
334032-STRL-BLK	0-044-001	48	CS
C57004	0-038-001	864	CS
C57004	0-057-001	288	CS

Processing Run Start Date/Time:	13-Mar-2020 03:21:17 pm	Approx. Downtime (hours):	2.27
Processing Run End Date/Time:	13-Mar-2020 08:50:05 pm		

Minimum Specified Dose (kGy):	15.0	Minimum Delivered Dose (kGy):	18.8
Maximum Specified Dose (kGy):	30.0	Maximum Delivered Dose (kGy):	23.3

Product meets Customer specifications; zero nonconformities occurred during this irradiation run.

Signature Manifest

Reviewed and E-Signed By
 **Eugene, Samalah (QS & RC Technician I)**
Document Content Revision: 1

Signed On 3/17/2020 at 3:36 PM
UTC / GMT Offset (hh:mm): -4:00

Processing Location:

STERIS
23 Elizabeth Drive
Chester, NY 10918
Phone: 845-469-4087
Fax: 845-469-7512

Operating facilities are in compliance with applicable state and federal regulations (FDA, NRC, EPA, and OSHA) and provide services under a quality system which meets the requirements of FDA QSR, EN/ISO 13485, and in alignment with EN ANSI/AAMI/ISO 11137. STERIS certifies that these processed items received the indicated doses within the precision and accuracy of the dosimetry system used.



STERIS Dosimetry Record (Alanine Dosimetry System)

Prepared for SCIENTIFIC SPECIALTIES SERVICE INC

Process Run ID 227167A

Date Prepared: 3/17/2020 3:34:46PM

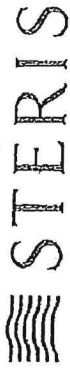
Processing Location: Chester

Irradiator / Method: 179, Nordion Cobalt-60 Irradiator #179, ON-STD

Carrier	Seg	Coordinate	Barcode ID	Insert	Instrument	Dose (kGy)	Final Dose (kGy)
Final Dose Measurements							
1	1	0C1	0BT600086593	TH0057	0491	20.1	20.1
1	2	14A5	0BT600086538	TH0057	0491	22.8	22.8
1	3	14E5	0BT600086543	TH0057	0491	22.4	22.4
14	1	0C1	0BT600086536	TH0057	0491	19.4	19.4
14	2	14A5	0BT600086572	TH0057	0491	22.7	22.7
14	3	14E5	0BT600086569	TH0057	0491	23.1	23.1
28	1	0C1	0BT600086559	TH0057	0491	18.8	18.8
28	2	14A5	0BT600086729	TH0057	0491	22.2	22.2
28	3	14E5	0BT600086539	TH0057	0491	23.3	23.3
42	1	0C1	0BT600086547	TH0057	0491	19.0	19.0
42	2	14A5	0BT600086546	TH0057	0491	22.5	22.5
42	3	14E5	0BT600086694	TH0057	0491	22.4	22.4

Minimum Dose for Record (kGy): 18.8

Maximum Dose for Record (kGy): 23.3



STERIS Dosimetry Record (Alanine Dosimetry System)
Prepared for SCIENTIFIC SPECIALTIES SERVICE INC

Process Run ID 227167A

Date Prepared: 3/17/2020 3:34:46PM

Processing Location: Chester

Irradiator / Method: 179, Nordion Cobalt-60 Irradiator #179, ON-STD

Carrier	Seq	Coordinate	Barcode ID	Insert	Instrument	Dose (kGy)	Final Dose (kGy)
---------	-----	------------	------------	--------	------------	------------	------------------

Signature Manifest

Prepared By:



Naja LeCraft-Jackson (Material Handler)

Approved By:

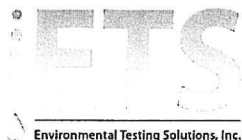


Eugene, Samaiah (QS & RC Technician I)

Document Content Revision: 1

Signed On 3/14/2020 at 3:47 AM
UTC / GMT Offset (hh:mm): -4:00

Signed On 3/17/2020 at 3:34 PM
UTC / GMT Offset (hh:mm): -4:00



Reagent Log

Reagent number: INR 1024Analyst: WDate: 08.22.20Reagent name: TSB 2xTest or application used for: sterilityType: ☒ Purchased ☐ Laboratory preparedManufacturer: Honey DiagnosticLot number: 465432Reagent concentration: NA - 2x'sNumber and/or volume: 2LDate received/prepared: 08.20.20Expiration date: 07-17-21 (1 year from preparation/receipt, if not assigned by manufacturer)

The Reagent identified on this form was discarded on or before the expiration date listed above.

Received/prepared by: W

Directions for preparing reagent:

NAReagent prepared from: NA (CHM # or INR #)Storage: Reagent RefrigeratorHazards: None

Personal hygiene:	Health:	<u>U</u>
	Fire:	<u>0</u>
	Reactivity:	<u>0</u>
	Personal equipment:	<u>A</u>

Chemical Log

Chemical number: CHM 114B

Analyst: ✓

Date: 06-03-20

Chemical name: Stable H₂O

Test or application used for: bacteria

Material type: ☐ Consumable ☒ Chemical

Toxicity Testing:

Quality Control required? ☐ Yes ☒ No

Manufacturer: Ident

Lot number: 2001133

Chemical concentration: NA

Number and/or volume: 10 vials w/100ml

Date received: 06-03-20

Expiration date: 02.10.22

Dry Chemicals = 5 years from receipt, if not assigned by manufacturer
Wet Chemicals = 1 year from receipt, if not assigned by manufacturer
Consumables = no expiration date, unless assigned by manufacturer

The Chemical identified on this form was discarded on or before the expiration date listed above.

Received by: ✓

Comments: None

Storage: Q Sealer

Hazards: none

Personal hygiene:

Health:	<u>Ø</u>
Fire:	<u>Ø</u>
Reactivity:	<u>Ø</u>
Personal equipment:	<u>A</u>



CERTIFICATE OF ANALYSIS

Certificado de Análisis / Certificat de contrôle / Chargen-Prüfprotokoll

Sterile Water

Product and lot number: 98-09444-01 - 2001133

Expiration date: 10 February 2022

Technical Support Inquiries:

1-207-556-4496
1-800-321-0207 (US/CAN)
00-800-4339-9111 (Europe)
email: water@idexx.com

Manufacturer:

IDEXX Laboratories
One IDEXX Drive
Westbrook, ME 04092 USA
Fax: 1-207-556-4630
www.idexx.com

Parameter	Limits	Results
Conductivity	Less than 1.0 μ S/cm	Pass
Heterotrophic Plate Count (prior to sterilization)	Less than 7.4 cfu/100 ml	Pass
pH	4.5 - 7.0	Pass
Total Organic Carbon	Less than 0.5 mg/L	Pass
Heavy Metals (including) Pb, Cd, Cr, Cu, Ni, Zn	Less than 0.05 mg/L ea. Less than 0.10 mg/L total	Pass
Ammonia/organic nitrogen	Less than 0.10 mg/L	Pass
Bacteriological Quality of Reagent Water ^(1,2)	Ratio of Growth Rate 0.8-3.0	Pass
Sterility	Product subjected to gamma irradiation in accordance with ISO 11137	Pass
Total Chlorine Residual	< 0.1 mg/L	Pass
Use Test ^(2,3)	Student's $t \leq 2.78$	Pass
Fill Volume	98-102 mL	Pass

- (1) Manual for the Certification of Laboratories Analyzing Drinking Water, Criteria and Procedures Quality Assurance. Fifth Edition. Cincinnati, OH: US Environmental Protection Agency (EPA); 2005
- (2) 2003 NELAC Standard, approved at the Ninth Annual NELAC Meeting, June 5, 2003
- (3) Standard Methods for the Examination of Water and Wastewater, 21st Edition. Washington, DC: American Public Health Association (APHA), American Water Works Association (AWWA), Water Environment Federation (WEF); 2005 and Standard Methods Online. Washington, DC; APHA, AWWA, WEF.

Quality Assurance Approval

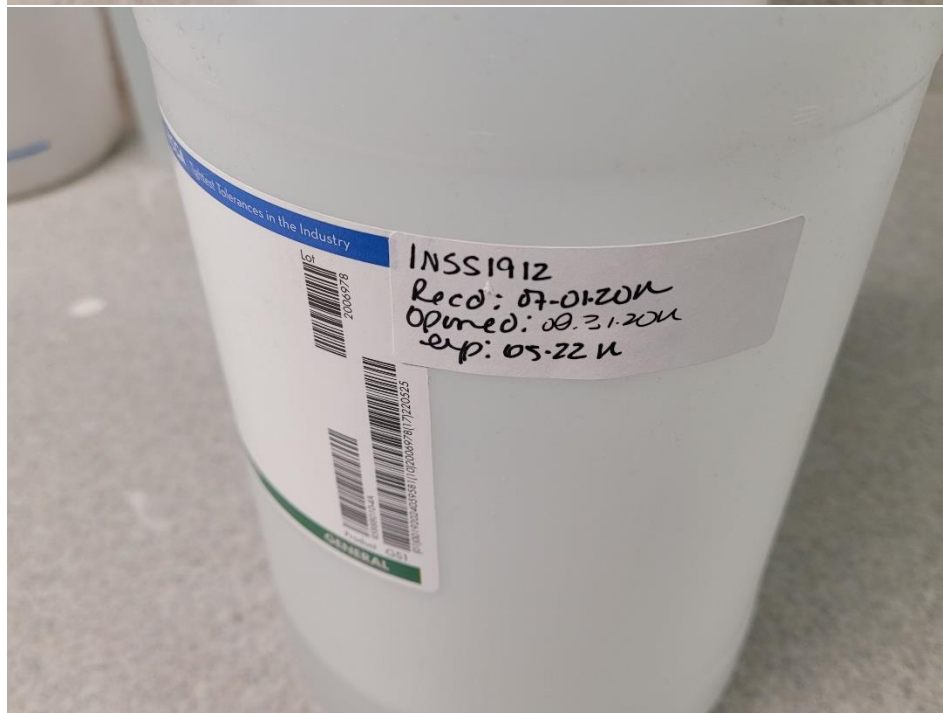
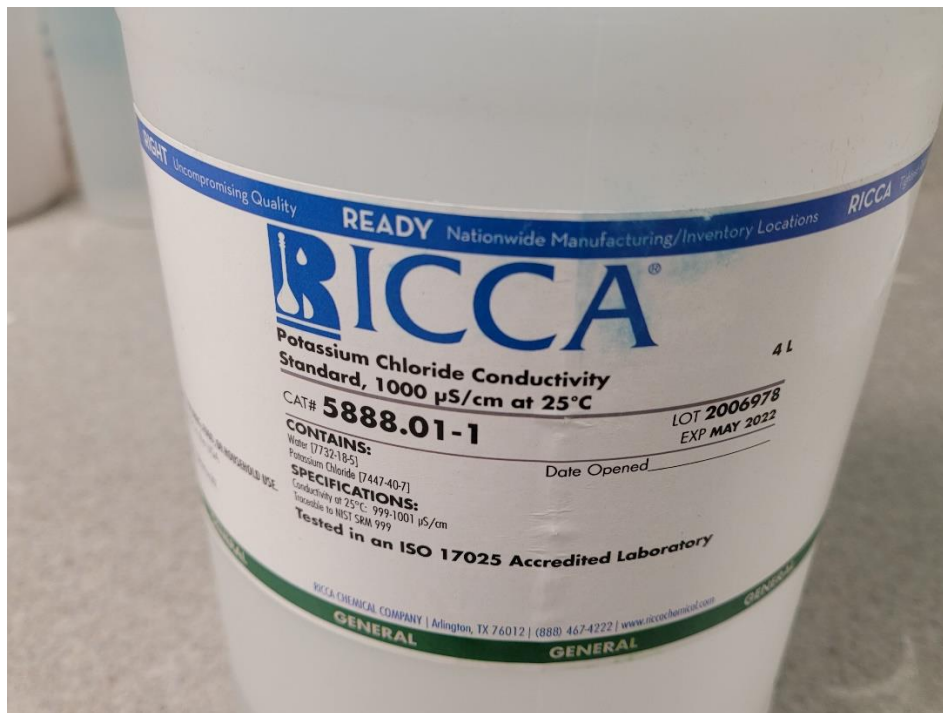
This product has met all specifications required for release.

All relevant documentation has been reviewed for completeness and accuracy.

Name: Tom Bannen, QA Specialist III

Signature:

Conductivity – Cell Constant Standard



Quality Control, Colilert® Reagent (SM 9223 B-2004)

Colilert Source:	IDEXX Laboratories, Inc.
Lot Number:	AR210B
Expiration Date:	03.01.20
Date Received:	07.10.19
Received By (analyst's initials):	W
IDEXX Un-buffered Sterile Water Lot #	17B 215

Organism	Initiation		24-hour Check				48-hour Check			
	Date	Time	Analyst	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)
Blank	07.11.19	0911	W	07.12.19	0752	W	A	A	W	A
Escherichia coli							P	P		P
Enterobacter aerogenes							P	A		A
Pseudomonas aeruginosa							A	A		A

3 Month Date 09.11.19 Analyst W Auto-fluorescence Positive + Negative ✓
 3 Month Date _____ Analyst _____ Auto-fluorescence Positive _____ Negative _____
 3 Month Date _____ Analyst _____ Auto-fluorescence Positive _____ Negative _____

Quality Control, Colilert® Reagent (SM 9223 B-2004)

Colilert Source:	IDEX Laboratories, Inc.
Lot Number:	G12734
Expiration Date:	08.28.20
Date Received:	12.18.19
Received By (analyst's initials):	VL
IDEX Un-buffered Sterile Water Lot #	1812152

Organism	Initiation			24-hour Check				48-hour Check					
	Date	Time	Analyst	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)
Blank	12.18.19	1224	VL	12.19.19	1113	VL	A	A	12.20.19	1200	VL	A	A
Escherichia coli							P	P				P	P
Enterbacter aerogenes							P	A				P	A
Pseudomonas aeruginosa							A	A				A	A

3 Month Date 12.18.19 Analyst VL Auto-fluorescence Negative
 3 Month Date 03.04.20 Analyst VL Auto-fluorescence Negative
 3 Month Date _____ Analyst _____ Auto-fluorescence Negative

Quality Control, Colilert® Reagent (SM 9223 B-2004)

Colilert Source:	IDEX Laboratories, Inc.
Lot Number:	MRL 612
Expiration Date:	01.29.21
Date Received:	06.03.20
Received By (analyst's initials):	KL
IDEXX Un-buffered Sterile Water Lot #	1012152

Organism	Initiation			24-hour Check					48-hour Check				
	Date	Time	Analyst	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)
Blank	06-03-20	1520	KL	06-04-20	1430	KL	A	A	06-05-20	1539	KL	A	A
Escherichia coli							P	P				P	P
Enterbacter aerogenes							P	A				P	A
Pseudomonas aeruginosa							A	A				A	A

3 Month Date 06.03.20 Analyst KL Auto-fluorescence Positive Negative
 3 Month Date 09-11-20 Analyst KL Auto-fluorescence Positive Negative
 3 Month Date _____ Analyst _____ Auto-fluorescence Positive Negative

Quality Control, Colilert® Reagent (SM 9223 B-2004)

Colilert Source:	IDEXX Laboratories, Inc.
Lot Number:	DS408
Expiration Date:	05.09.21
Date Received:	11.19.20
Received By (analyst's initials):	AL
IDEXX Un-buffered Sterile Water Lot #	2001133

Organism	Initiation			24-hour Check					48-hour Check				
	Date	Time	Analyst	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)	Date	Time	Analyst	Total Coliform Present or Absent (P or A)	Fecal Coliform Present or Absent (P or A)
Blank	11.23.20	1234	VL	11.24.20	1202	VL	A	A	11.25.20	1231	VL	A	A
Escherichia coli							P	P				P	P
Enterbacter aerogenes							P	A				P	A
Pseudomonas aeruginosa							A	A				A	A

3 Month Date 11.23.20 Analyst AL Auto-fluorescence Positive Negative ✓
 3 Month Date _____ Analyst _____ Auto-fluorescence Positive Negative _____
 3 Month Date _____ Analyst _____ Auto-fluorescence Positive Negative _____

Colilert*/Colilert®-18
Presence/Absence Comparator

idexx.com/water

Catalog No.: WP104

Storage: 15–30°C (59–86°F)
In the dark



Part No.: 98-11682-00



Lot No.: FS606

Exp: 01 JUL 2021

04-02723-02

IDEXX

Quanti-Tray/2000
Comparator

Colilert* and Colilert®-18

Store at 2–30°C in the dark, when not in use.

Conservar a 2–30°C, al abrigo de la luz, cuando no se use.

Conserve à 2–30°C, à l'abri de la lumière.

Conservare tra 2–30°C ed al buio quando non utilizzato.

Produkt bei 2–30°C im Dunkeln lagern.

Catalog No.: WQT2KC

Part No.: 98-09227-00



Lot No.: KS226



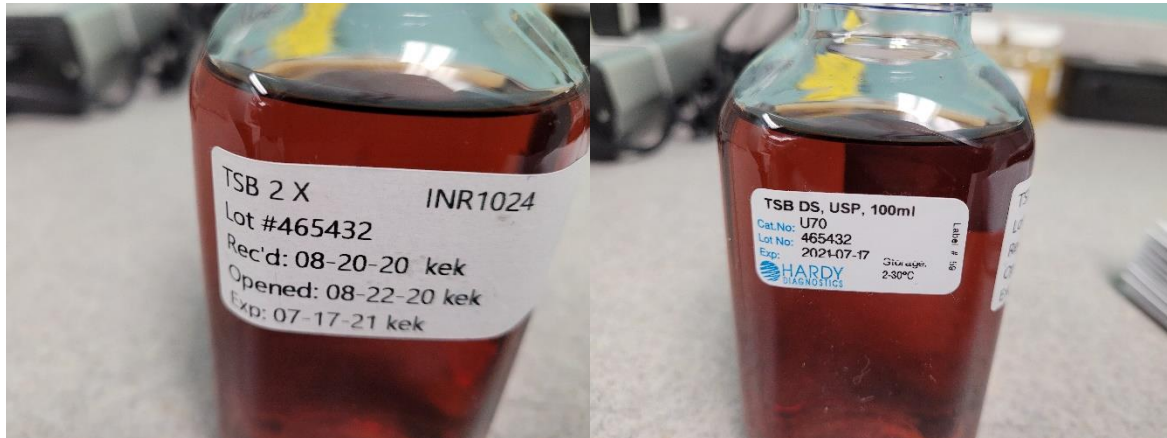
Exp.: 13 NOV 2021

IDEXX

idexx.com/water

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*Quanti-Tray is a trademark or registered trademark of IDEXX Laboratories, Inc.
or its affiliates in the United States and/or other countries.

TSB



Crystal Violet Stain Check

Month Chemical Number	Initiation		24-hour Check				
	Date	Time	Analyst	Date	Time	Analyst	Leaks (+/-)
January CHM 759	01.03.18	1115	u	01.04.18	1234	u	-
February CHM 759	02.06.18	1539	u	02.07.18	1430	u	-
March CHM 759	03.06.18	1629	u	03.07.18	1503	u	-
April CHM 759	04.03.18	1511	u	04.04.18	1449	u	-
May CHM 759	05.01.18	1508	u	05.02.18	1442	u	-
June CHM 759	06.05.18	1500	u	06.06.18	1437	u	-
July CHM 759	07.02.18	1600	u	07.03.18	1700	u	-
August CHM 759	08.01.18	0844	u	08.02.18	0812	u	-
September CHM							
October CHM							
November CHM							
December CHM							
							09.25.18
							u

Matrix: Water

Colilert Lot #: D5408

SOP B6-Revision 4-Exhibit B6.1

Quality Control – Sample Bottle Sterility

Page 21

Sample Bottle Information:

Colliert Sample Bottle Source:	Idex
Lot number:	AP008 30402
Expiration date:	NA
Date received:	05-11-18 05-09-18
Received by (analyst's initials):	KL

Sterility Check:

Trypticase Soy Broth INR#: 846

Bottle Location	Number of Bottles Tested	Initiation			24-hour Check				48-hour Check			
		Date	Time	Analyst	Date	Time	Analyst	Turbid (+ or -)	Date	Time	Analyst	Turbid (+ or -)
Top	1	07-30-18	1007	KL	07-31-18	1003	KL	—	08-01-18	1003	KL	—
Middle Row 1												
Middle Row 2												
Bottom												07-31-18 KL

E. coli Enumeration by Quanti-Tray, SM 9223 B-2004

Matrix: Water

Date: 09-04-18

Collert Lot #: HN 310

Sample Number	Sample Identification	Dilution (3 required per sample)	Initiation			Termination			E. coli Present		
			Date	Time	Analyst	Date	Time	Analyst	Number of Small Cells	Number of Large Cells	Result
162303	Wayneville	10	09-04-10	1442	u	09-05-10	1443	u	0	0	<1
1		50							0	0	<1
		100							0	0	<1
162304	TwSA	10							0	4	4.1
1		50							2	16	21.3
		100							5	31	54.4
162305	WCU	10							0	0	<1
1		50							0	0	<1
		100							0	0	<1
162340	Spine bc	10							0	13	1.0
1		50							2	13	17.1
		90-D							0	7	7.5
		100							0	20	24.9
162349	Spine NT	10							0	12	13.5
1		50							3	35	62.4
		100							7	40	230.2
<div style="text-align: center;"> </div>											
<div style="text-align: center;"> </div>											

Nitrate (SM 4500 NO₃⁻ D- 2011)

Matrix: water, RL = 1.0 mg/L NO₃⁻N

Analyst: KL
Date analyzed: 01.07.21

Reviewed by: KL
Reviewed date: 01.08.21

Stock standard: 1N551937B Time started: 0746
Working standard: Daily from stock standard Time ended: 0751
ISA: 1N21005
Slope: 52.9

Calibration Standards		
Calibration:	<u>1.0</u>	mg/L
Calibration:	<u>10</u>	mg/L
Midpoint (TV = 5.0):	<u>4.77</u>	mg/L

Sample Number	Date Collected	Chlorine (Y/N)	Sample Identification	Sample volume (mL)	Concentration Nitrate (mg/L)	Dilution Factor	Final Concentration Nitrate (mg/L)
TV = ND			Blank	100	20.390	1	ND
TV = 5.00			LCS		5.44		5.44
207747	01.04.21	Y	Spike	1	4.06	1	4.1
207747	01.04.21	Y	Spike Duplicate	1	3.96	1	4.0
207748	01.04.21	Y	CWA NF		20.389		ND
207748	1	Y	1 BT		20.376		ND
207852	01.05.21	Y	Ad. v. l. k. q. l.		20.317		ND
01.07.21							
TV = ND			Blank	100	20.258	1	ND
TV = 5.00			LCS	1	5.23	1	5.23

CALCULATIONS

Final Nitrate Result mg/L: concentration X dilution factor

Final RPD = [(S-D) / ((S+D) / 2)] X 100

Reference standard recovery (%RS) = (X / Y) X 100

QUALITY CONTROL

Precision (spike duplicate):

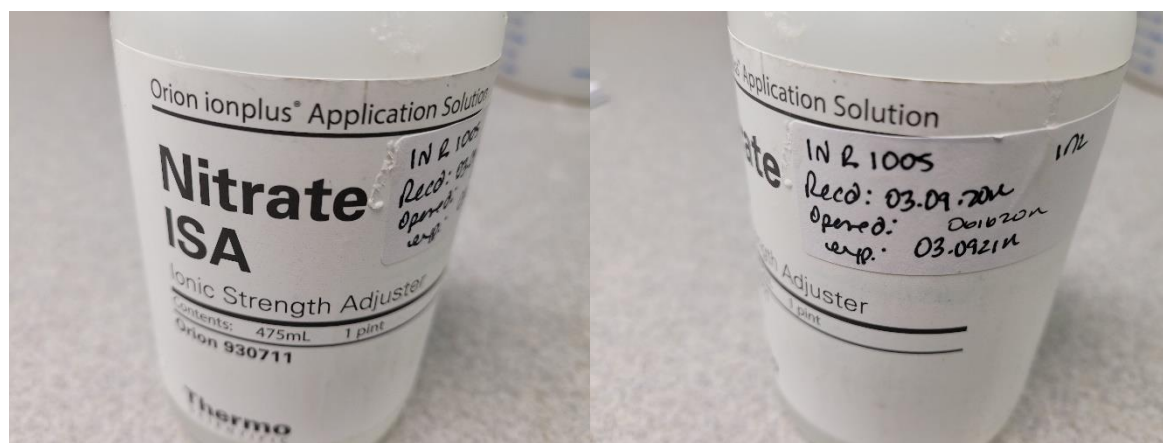
Sample number: 207747
Spike result (S): 4.1 mg/L
Spike Duplicate result (D): 4.0 mg/L
Final RPD = 2.5 %

Laboratory control standard (LCS):

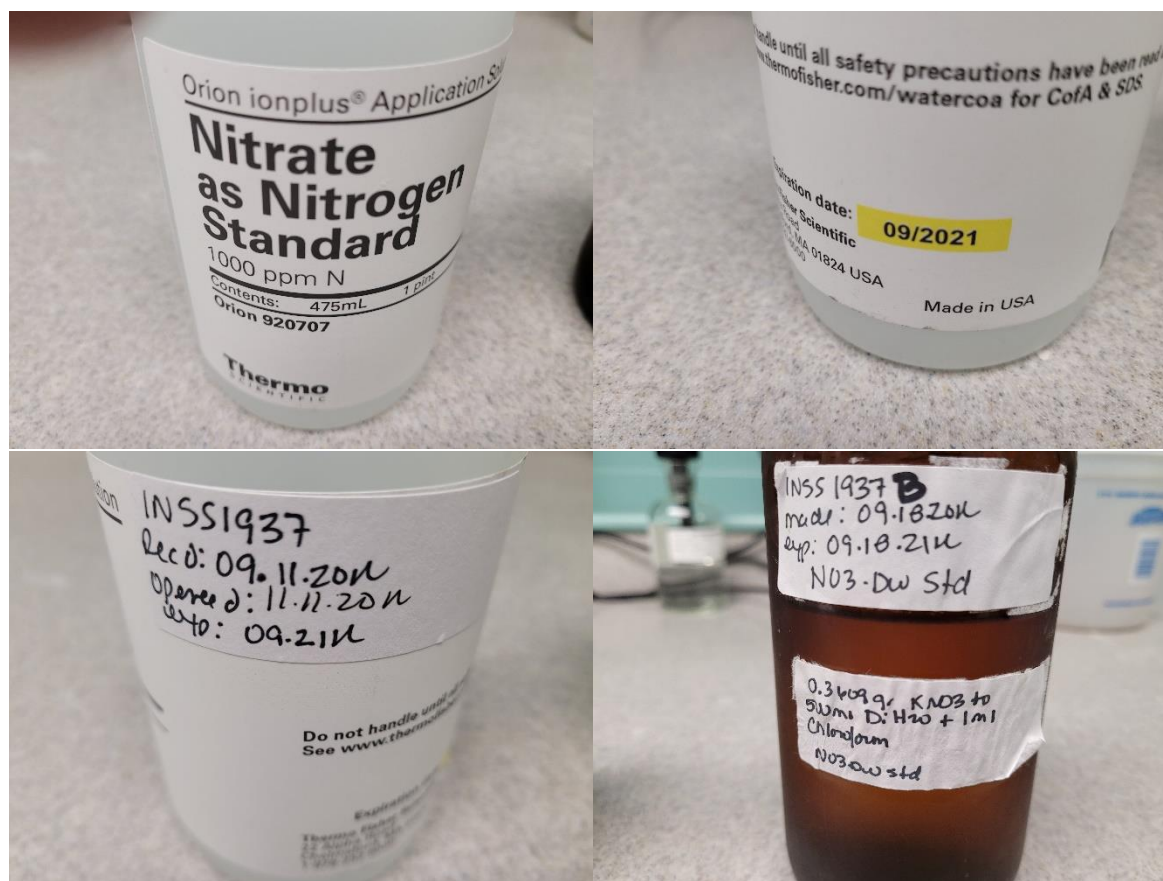
Reference standard number 1N551937

Value obtained (X) = 5.44 mg/L True value (Y) = 5.00 mg/L %RS = 108.8 %

Nitrate ISA



Nitrate Standards



Precision Weighing

1949 Evans Road
Cary, North Carolina 27513
Phone: (919) 678-0077 * Fax: (919) 678-0075
Email: pweighing@aol.com



Weight Set Certificate of Calibration

Client:
Environmental Testing Solutions

Contact:
Jim Sumner

Department:
Lab

Description:
100g - 2mg weight set

Serial Number:
20410

Calibration Data

Test Weight (g)	Test Weight Value (g)	Standard Weight Value (g)	+/- Difference (g)
0.005	0.00499	0.00500	0.00001
0.01	0.01034	0.00999	-0.00035
0.02	0.01998	0.01999	0.00001
0.05	0.04993	0.05000	0.00007
0.1	0.10050	0.10000	-0.00050
0.2	0.20008	0.19999	-0.00009
0.3	0.30003	0.30001	-0.00002
0.5	0.50037	0.50000	-0.00037
1	1.00003	1.00001	-0.00002
2	2.00006	2.00000	-0.00006
2*	2.00005	2.00000	-0.00005
5	5.00007	4.99999	-0.00008
10	10.00004	9.99996	-0.00008
20	20.00009	19.99994	-0.00015
20*	20.00003	19.99994	-0.00009
50	49.99995	49.99999	0.00004
100	99.99998	100.00004	0.00006

Verification Date:	19-Mar-18	Verification Due Date:	Mar-23
--------------------	-----------	------------------------	--------

Calibration SOP: Metrology 2190

TEST STANDARD(S) INFORMATION:

Standard(s) Used	ID	Expiration Date
Sartorius balance ME235P	18608683	20-Mar-18
Class 1 weight set	3DDS	31-Oct-18

Comments:

Technician/Date:

Ahanna Brabbs

19-Mar-18

Customer:

Jim Sumner

Precision Weighing

1949 Evans Road
Cary, North Carolina 27513
Phone: (919) 678-0077 * Fax: (919) 678-0075
Email: pweighing@aol.com



Weight Set Certificate of Calibration

Client:
Environrntmental Testing Solutions

Contact:
Jim Sumner

Department:
Lab

Description:
200mg

Weight Set ID#:
N/A

Calibration Data

Test Weight (g)	Test Weight Value (g)	Standard Weight Value (g)	+/- Difference (g)	Class 1 +/- Tolerance (mg)	Meets Tolerance	Serial Number
0.200	0.20001	0.20000	0.00001	0.010	YES	1000055140

Calibration Date:	29-Mar-18	Calibration Due Date:	Mar-23
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Calibration SOP: Metrology 2190 Rev 1.0

TEST STANDARD(S) INFORMATION:

Standard(s) Used	ID	Expiration Date
Sartorius ME235P	18608683	30-Mar-18
Class 1 weight set	3DDS	31-Oct-18

Comments:

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Technician/Date:

Shauna Brabbe 29-Mar-18

Customer:

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Report of Balance CalibrationCustomer: **Environmental Testing Solutions, Inc.**Date: **2021-01-19** Due: **2022-01-19**

Manufacturer	Model	Serial	Department/Location
Mettler-Toledo	ME204	C006982938	Lab
Capacity 220g	Resolution 0.1mg	Tolerance \pm	

Initial Examination

Cornerload test	Front	Back	Left	Right	Set #/Weight ID/Actual Weight
Reading	100.0013	100.0012	100.0012	100.0013	6/NA/100.000118 g
Zero return	0.0001	0	0.0001	0	

Reproducibility test

Reading	Zero Return
30.0007	0
30.0008	0
30.0007	0
30.0007	0
30.0005	0
30.0005	0

Accuracy/Linearity test

Set #/Weight ID/Actual Weight	Reading	Zero return
6/NA/499.9926 mg	0.5001	0
6/NA/4.9999917 g	5.0002	0
6/NA/9.9999984 g	10.0004	0
6/NA/20.000006 g	20.0008	0
6/NA/100.000157 g	100.0004	0
5/dot 2/199.99987 g	200.0015	0

In tolerance as found? ☐ YES ☒ NO**Post Calibration Examination****Comments**

The balance was within tolerance for cornerload and reproducibility tests but out of tolerance for accuracy/linearity. This was corrected by calibrating the balance using traceable weights as listed. The balance was within tolerance once calibration was completed.

Accuracy/Linearity test

Set #/Weight ID/Actual Weight	Reading	Zero return
6/NA/499.9926 mg	0.5000	0
6/NA/4.9999917 g	5.0000	0
6/NA/9.9999984 g	10.0001	0
6/NA/20.000006 g	20.0000	0
6/NA/100.000157 g	99.9995	0
5/dot 2/199.99987 g	200.0002	0

In tolerance as left? ☒ YES ☐ NO**Notes on tests performed**

Cornerload testing verifies that the instrument delivers similar weight readings, regardless of where on the weighing pan the object being weighed is placed. A significant discrepancy would indicate a structural failure in the load cell.

Reproducibility testing entails repeatedly weighing a given object, recording the results, and analyzing those results by comparing standard deviation against manufacturer's published tolerance.

Accuracy/Linearity testing verifies the accuracy of the instrument at intermediate values of weight.

All weights are given in grams unless otherwise noted

Calibration is traceable to an International Standard - Weight Set Traceability Information

Set#	Traceability#	Serial#	Description	Last Calibrated	Due Next
6	SC090318-1-15	2RCR	Rice Lake Class 1 Set	20191025	20241025
5	SC950626-1-15	67730	Troemner Class 1 Set	20191022	20241022
2	SC910419-1-15	None	Troemner Class S Set	20190326	20240326
7	SC190418-1-19	38435	Troemner Class 1 Set	20190607	20240607

Technician: 

Matt Lassiter

Mettler-Toledo ME204 Balance Log

Instrument	Serial number	Calibration date	Calibration company
Mettler-Toledo ME204 Balance	C006982938	04-28-20	Laboratory Instrument Services
Certified Weights	20410	03-19-18	Precision Weighing

Date	Internal Cal. (V)	Level (V)	Certified weight (g) and control limits*						Analyst initials
			0.0103	0.1005	1.0000	10.0000	50.0000	100.0000	
			0.0101-0.0105	0.0985-0.1025	0.9990-1.0010	9.9900-10.0100	49.9500-50.0500	99.9000-100.1000	
12.22.20		✓		0.1005	1.0000	10.0000		100.0001	MSA
12.23.20		✓	0.0104	0.1003	1.0002	9.9999	50.0000		MS
12.25.20		✓						100.0005	MS
12.27.20	✓	✓	0.0102	0.1007	1.0001	9.9998	50.0001	100.0004	KD
12.28.20		✓	0.0103	0.1006	1.0000	9.9998	50.0000		TS
12.29.20		✓		0.1005	1.0002	9.9997	50.0000	100.0000	MS
12.30.20		✓		0.1005	1.0003	9.9990			MS
01.03.21	✓	✓	0.0104	0.1006	1.0001	9.9998	50.0003	100.0002	MS
01.04.21		✓	0.0104		1.0001	10.0000	50.0000		MS
01.05.21		✓	0.0104	0.1005	1.0000	9.9990	50.0001		MS
01.06.21		✓		0.1004	1.0000	10.0000			MS
01.07.21		✓	0.0104	0.1007	1.0002	10.0002	50.0003		MS
01.08.21		✓		0.1005	1.0000	10.0000			MS
01.10.21	✓	✓	0.0102	0.1004	1.0001	9.9999	50.0002	100.0003	KD
01.11.21		✓		0.1005	1.0001	10.0000	50.0001		MS
01.12.21		✓		0.1004	1.0000	9.9999	50.0001		MS
01.13.21		✓	0.0102	0.1005	1.0001	10.0000	50.0001		MS
01.14.21		✓	0.0103	0.1005	1.0000	10.0000	50.0002		MS
01.15.21		✓		0.1006	1.0002	10.0002			MS
01.16.21		✓		0.1005	1.0001				MS
01.17.21	✓	✓	0.0102	0.1004	0.9998	9.9999	50.0001	100.0001	KD
01.17.21		✓	0.0102	0.1005	1.0001	10.0001	50.0001		MS
01.18.21		✓	0.0103	0.1006	1.0001	10.0000			MS
01.19.21			BALANCE ANNUAL SERVICE - LABORATORY INSTRUMENTS.						

*Certified weights must be within established control limits before measurements are made.

If certified weights exceed control limits, perform balance internal calibration and re-measure certified weights.

Mettler-Toledo ME204 Balance Log

Instrument	Serial number	Calibration date	Calibration company
Mettler-Toledo ME204 Balance	C006982938	01-19-21	Laboratory Instrument Services
Certified Weights	20410	03-19-18	Precision Weighing

[illegible]

*Certified weights must be within established control limits before measurements are made.

If certified weights exceed control limits, perform balance internal calibration and re-measure certified weights.

ETS
Environmental Testing Solutions, Inc.

PO Box 7565
Asheville NC 28802
Phone: (828) 350-9364
Fax: (828) 350-9368

NITRATE/NITRITE ANALYSIS

Note: All appropriate information must be supplied for compliance credit.

SENT TO STATE

WATER SYSTEM ID #: 1 0 - 8 8 - 0 0 1 County: Transylvania

Name of Water System: Adventure Village

Sample Type: ☒ Entry Point ☐ Special/Non-compliance

Location Where Collected: Storage Tank

Facility ID No.: P 0 1

Sample Point: E 0 1

Collected By: Trevor McMinn
(Please Print)

Collection Date	Collection Time
<u>6/05/21</u> (MM/DD/YY)	<u>07:54 A M</u> (Specify AM or PM)

Mail Results to (water system representative):
Trevco

Mr. Trevor McMinn

Phone #: (828) 691-7191

2020 Howard Gap Road

Fax #: _____

Hendersonville, NC 28792

Responsible Person's e-mail: _____

LABORATORY ID# 3 7 7 8 6

☐ SAMPLE UNSATISFACTORY

☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1040	Nitrate	4500NO3D	1.00 mg/L	<input checked="" type="checkbox"/>	_____ mg/L	10.00 mg/L
1041	Nitrite	---	0.10 mg/L	<input type="checkbox"/>	_____ mg/L	1.00 mg/L

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State on day test completed.

	DATE:	TIME:
ANALYSIS BEGUN:	<u>01/07/21</u> (MM/DD/YY)	<u>07:46 A M</u> (Specify AM or PM)
ANALYSIS COMPLETED:	<u>01/07/21</u> (MM/DD/YY)	<u>07:51 A M</u> (Specify AM or PM)

Laboratory Log #: 207060

Certified By: _____

Kelley E. Keenan

COMMENTS: _____

210105.840

Temperature upon receipt at laboratory (°C): 21.2

Chlorinated

Reagent Log

Reagent number: INR 1005

Analyst: JK

Date: 04.19.20

Reagent name: Nitrate ISA

Test or application used for: NO3-DW

Type: ☒ Purchased ☐ Laboratory prepared

Manufacturer: Thermo Scientific

Lot number: X01

Reagent concentration: NA

Number and/or volume: 475 ml X2 bottles

Date received/prepared: 03.09.20

Expiration date: 03.09.21 (1 year from preparation/receipt, if not assigned by manufacturer)

The Reagent identified on this form was discarded on or before the expiration date listed above.

Received/prepared by: JK

Directions for preparing reagent:

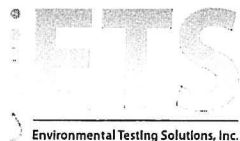
NA

Reagent prepared from: NA (CHM # or INR #)

Storage: Under fume hood

Hazards: Harmful to aquatic life

Personal hygiene:	Health:	<u>0</u>
	Fire:	<u>0</u>
	Reactivity:	<u>1</u>
	Personal equipment:	<u>C</u>



Stock Standard Log

Stock standard number: INSS 1937Analyst: ✓Date: 09.18.20Standard name: Nitrate stdTest or application used for: N03-DWType: ☒ Purchased ☐ Laboratory preparedManufacturer: Thermo ScientificLot number: XR1Stock concentration: 1000ppmNumber and/or volume: 475mlDate received/prepared: 09.11.20Expiration date: 09.21 (1 year from preparation/receipt, if not assigned by manufacturer)

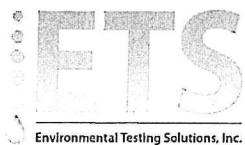
The Stock Standard identified on this form was discarded on or before the expiration date listed above.

Received/prepared by: ✓

Directions for preparing stock:

NAStock standard prepared from: NA (CHM #)Storage: Reagent RefrigeratorHazards: Self can hurt flush w/ H₂O

Personal	Health:	<u>1</u>
hygiene:	Fire:	<u>0</u>
	Reactivity:	<u>0</u>
	Personal equipment:	<u>C</u>



Chemical Log

Chemical number: CHM 1062Analyst: KDate: 03.21.19Chemical name: Potassium NitrateTest or application used for: N03-DWMaterial type: ☐ Consumable ☒ ChemicalManufacturer: FisherLot number: 148046Chemical concentration: CertifiedNumber and/or volume: 100g/Date received: 03-18-19

Expiration date: 03-18-24

Dry Chemicals = 5 years from receipt, if not assigned by manufacturer
 Wet Chemicals = 1 year from receipt, if not assigned by manufacturer
 Consumables = no expiration date, unless assigned by manufacturer

The Chemical identified on this form was discarded on or before the expiration date listed above.

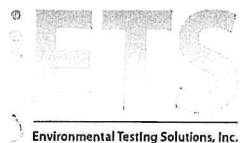
Received by: KComments: noneStorage: with oxidizer chemicalsHazards: Oxidizer - may cause fire - self contact flesh with H₂O

Personal Health: 2

hygiene: Fire: 4

Reactivity: 2

Personal equipment: C



Stock Standard Log

Stock standard number: INSS 1937bAnalyst: uDate: 09.10.20Standard name: NO3-DW STDTest or application used for: NO3Type: ☐ Purchased ☒ Laboratory preparedManufacturer: NALot number: NAStock concentration: 100ppmNumber and/or volume: 500mlDate received/prepared: 09.10.20Expiration date: 09.10.21 (1 year from preparation/receipt, if not assigned by manufacturer)

The Stock Standard identified on this form was discarded on or before the expiration date listed above.

Received/prepared by: u

Directions for preparing stock:

0.3609 gr KNO3 to 500ml D.H2O + 1ml ChloroformStock standard prepared from: Chm 1062 (CHM #)Storage: Reagent RefrigeratorHazards: cl Contact flushed H2O

Personal	Health:	<u>1</u>
hygiene:	Fire:	<u>0</u>
	Reactivity:	<u>0</u>
	Personal equipment:	<u>C</u>