

625 East Bunker Court
Vernon Hills, Illinois 60061
PH: 866-466-6225
Fax: 847-327-2993
www.innocalsolutions.com

NIST Traceable Calibration Report



REPORT NUMBER
1601825

Reference Number: 1381316
PO Number: DCLARK092619

Montana State Crime Lab
2679 Palmer Street
Missoula, MT 59808 United States

Manufacturer: Gilmont Instruments Inc.
Model Number: GF-2560
Description: Flowmeter, Shielded Tube Sz 15
Asset Number: CP345031
Serial Number: CP345031
Procedure: See report

Calibration Date: 10/31/2019
Calibration Due Date: 10/31/2020
Condition As Found: In Tolerance
Condition As Left: In Tolerance, No adjustment

Remarks:

Received serial #CP345031 back from Dick Munns, Co., on 11/11/2019. All data is traceable to NIST. A copy of your report #495915.19 is attached to this cover sheet.

Temperature: 21° C
Humidity: 25% RH
Rpt. No.: 1601825

Calibration Performed By:				Quality Reviewer:	
Name	ID #	Title	Phone	Name	Date
Maahs, Charlene	372	Metrologist	847-327-5344	Pietronicco, Mike	11/11/2019

This report may not be reproduced, except in full, without written permission of Innocal. The results stated in this report relate only to the items tested or calibrated. Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A, ANSI/NCSL Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.



CERTIFICATE OF CALIBRATION

CUSTOMER:	INNOCAL VERNON HILLS, IL	CALIBRATION DATE:	10/31/19
PO NUMBER:	1230199	CALIBRATION DUE:	10/31/20
INST. MANUFACTURER:	GILMONT	PROCEDURE:	NAVAIR 17-20MG-02
INST. DESCRIPTION:	FLOWMETER (BLACK GLASS FLOAT)	CALIBRATION FLUID:	AIR @ 14.7 PSI 70F
MODEL NUMBER:	GF-2560 (5 - 80 SLPM AIR)	STANDARD(S) USED:	A4 DUE 06-2020
SERIAL NUMBER:	CP345031	AS RECEIVED:	WITHIN SPECS
RATED UNCERTAINTY:	+/- 5% RD OR 2mm OF THE SCALE LENGTH, WHICHEVER IS GREATER	AMBIENT CONDITIONS:	765mmHGA 25% RH 70F
UNCERTAINTY GIVEN:	+/- 0.19% RD K=2	CERTIFICATE FILE #:	495915.19
NOTES:	AS RECEIVED/AS LEFT WITHIN SPEC REFERENCE CONDITIONS ARE 760mmHGA 70F		

TEST POINT NUMBER	UUT INDICATED SLPM	DM.STD. ACTUAL SLPM	% RD ERROR
1	5	4.814	-3.720
2	10	9.853	-1.470
3	20	19.744	-1.280
4	40	38.492	-3.770
5	50	48.763	-2.474
6	60	58.124	-3.127
7	80	77.696	-2.880

STANDARDS USED:		
A5 VOLUME PROVER +/- 0.04% BY VOLUME TRACE # 1329407628, 89576	DUE	05/28/20
AML800 VOLUME PROVER +/- 0.15% BY VOLUME TRACE # 144613547, 1424683640	DUE	01/04/20
A24 TEMP STD. HART SCIENTIFIC +/- 0.027 F TRACE# 1553180963	DUE	03/21/20

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

Dick Munns Company • 11133 Winners Circle • Los Alamitos, CA 90720
Phone (714) 827-1215

This Calibration Certificate shall not be reproduced, copied, in full, without approval by DICK MUNNS COMPANY. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration.

Date:

10/31/2019

Approved By:

Calibration Technician:



Johnson Gage and Inspection, Inc.

5920 W 21st St. N., Wichita, KS 67205
Phone 316.943.7532; Fax 316.944.6256



Certificate of Calibration

Report Number: 247077
Customer: MT STATE CRIME LAB

Page 1 of 2

Form 2511
REV C 12-01-11

2679 PALMER ST
MISSUOLA MT 59808

Item: Laser Distance Meter
Unit Number: 1283650959
Model Number: Leica Disto D2
Serial Number: 1283650959
Location: Production

Inspector: MP
Date Calibrated: May 2, 2019
Recalibration Date: May 2, 2020
Temperature: 73.9 °F
Relative Humidity: 41 %

Item Range: 0-328 ft Resolution: 0.001 in, 0.01 ft
Tolerance: ±0.080 in (±0.01 ft) Class: None
Controlling Specification(s): ISO/IEC 17025, ANSI/NCSL Z540-1
Calibration/Inspection Procedure(s): WP250107 Tolerance Source: M See Below

Standard Value	Test Result	Deviation	Uncertainty @k=2
Front: 4.000 in	3.990 in	-0.010 in	0.0049 in
1.00 ft	1.00 ft	None	0.0058 ft
2.00 ft	2.00 ft	None	0.0058 ft
3.00 ft	3.00 ft	None	0.0058 ft
4.00 ft	4.00 ft	None	0.0058 ft
5.00 ft	5.00 ft	None	0.0058 ft
6.00 ft	6.00 ft	None	0.0058 ft
7.00 ft	7.00 ft	None	0.0058 ft
8.00 ft	8.00 ft	None	0.0058 ft

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. This estimate was performed in accordance with guidelines set forth in ANSI/NCSL Z540-2. The acceptance or rejection of the item(s) is based on the actual test values shown, without adjustment for measurement uncertainty. All testing performed using standards traceable to NIST or to intrinsic standards. This document shall not be reproduced except in full, without the written permission of Johnson Gage and Inspection. Tolerance source key: C = Customer; S = Specification; M = Manufacturer; R = JGI Recommended.

Comments: Found in tolerance. No action required.
Note: Unless otherwise noted, the readings are taken in the default position, which is from the back surface of the measuring unit. Extra readings were taken to ensure accuracy in other modes, and are marked accordingly.

Condition: Used

RESULTS: Accepted

CALIBRATION STANDARD

Manufacturer/type: Tape Measure Test Frame Model Number: Custom
Date Certified: Feb 28, 2019 Serial Number: TMTF3
Date Due: Feb 28, 2022 TRACEABILITY NUMBER: 244733

Approved by:

5/3/2019



Johnson Gage and Inspection, Inc.

5920 W 21st St. N., Wichita, KS 67205
Phone 316.943.7532; Fax 316.944.6256



Certificate of Calibration

Report Number: 247077
Customer: MT STATE CRIME LAB

Page 2 of 2

Form 2511
REV C 12-01-11

2679 PALMER ST
MISSUOLA MT 59808

Item: Laser Distance Meter
Unit Number: 1283650959
Model Number: Leica Disto D2
Serial Number: 1283650959
Location: Production

Inspector: MP
Date Calibrated: May 2, 2019
Recalibration Date: May 2, 2020
Temperature: 73.9 °F
Relative Humidity: 41 %

Item Range: 0-328 ft Resolution: 0.001 in, 0.01 ft
Tolerance: ±0.080 in (±0.01 ft) Class: None
Controlling Specification(s): ISO/IEC 17025, ANSI/NCSL Z540-1
Calibration/Inspection Procedure(s): WP250107 Tolerance Source: M See Below

Standard Value Test Result Deviation Uncertainty @k=2

Standard Value	Test Result	Deviation	Uncertainty @k=2
9.00 ft	9.00 ft	None	0.0058 ft
10.00 ft	10.00 ft	None	0.0058 ft
11.00 ft	11.00 ft	None	0.0058 ft
12.00 ft	12.00 ft	None	0.0058 ft
15.00 ft	15.00 ft	None	0.0058 ft
30.00 ft	30.00 ft	None	0.0058 ft
Rear Foot Extended:			
30.00 ft	30.00 ft	None	0.0058 ft
Front: 30.00 ft	30.00 ft	None	0.0058 ft

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. This estimate was performed in accordance with guidelines set forth in ANSI/NCSL Z540-2. The acceptance or rejection of the item(s) is based on the actual test values shown, without adjustment for measurement uncertainty. All testing performed using standards traceable to NIST or to intrinsic standards. This document shall not be reproduced except in full, without the written permission of Johnson Gage and Inspection. Tolerance source key: C = Customer; S = Specification; M = Manufacturer; R = JGI Recommended.

Comments: Found in tolerance. No action required.
Note: Unless otherwise noted, the readings are taken in the default position, which is from the back surface of the measuring unit. Extra readings were taken to ensure accuracy in other modes, and are marked accordingly.

Condition: Used

RESULTS: Accepted

CALIBRATION STANDARD

Manufacturer/type: Tape Measure Test Frame Model Number: Custom
Date Certified: Feb 28, 2019 Serial Number: TMTF3
Date Due: Feb 28, 2022 TRACEABILITY NUMBER: 244733

Approved by:

5/3/2019



24500 Detroit Rd., Cleveland, OH 44145



Calibration Date: 4/2/2019

Make: WEBBER 10

Style: RECTANGULAR, STEEL

Grade: B89 AS1

Commercial Calibration

Certificate of Calibration

SIZE CALIBRATION ONLY, DEVIATION EXPRESSED IN MICROMETERS

Uncertainty Coverage Factor = 2

Property of: Montana Department Of Justice

2679 Palmer St.

Missoula, MT

P. O. No.: S031319B

Mfg. S/N: GAC12

Own. S/N: NONE

Etch: GAC12

Marked Size	Tol Ind	Ref. Pt (µm)	Etch-ID	Material	Style	Deviation at Auxiliary Points				Calculated		
						1	2	3	4			
2.5		-0.08				-0.07	-0.09	-0.08	-0.06	0.03	.08	2.49992
5.1		-0.05				-0.05	-0.04	-0.05	-0.02	0.03	.08	5.09995
7.7		-0.02				-0.02	-0.02	-0.04	-0.02	0.02	.08	7.69998
10.3		+0.01				+0.01	+0.01	+0.03	+0.01	0.02	.08	10.30001
12.9		-0.02				-0.03	-0.03	+0.01	-0.03	0.04	.08	12.89998
15.0		+0.07				+0.08	+0.07	+0.06	+0.06	0.02	.08	15.00007
17.6		+0.05				+0.03	+0.04	+0.06	+0.03	0.03	.08	17.60005
20.2		-0.03				-0.03	-0.02	-0.02	+0.01	0.04	.08	20.19997
22.8		-0.01				0.00	0.00	+0.03	-0.01	0.04	.08	22.79999
25.0		-0.01				0.00	+0.01	-0.02	+0.02	0.04	.08	24.99999



24500 Detroit Rd., Cleveland, OH 44145

Calibration Date: 4/2/2019

Make: WEBBER 10

Style: RECTANGULAR, STEEL

Grade: B89 AS1

Commercial Calibration

Certificate of Calibration

SIZE CALIBRATION ONLY, DEVIATION EXPRESSED IN MICROMETERS

Uncertainty Coverage Factor = 2

Property of: Montana Department Of Justice

2679 Palmer St.

Missoula, MT

P. O. No.: S031319B

Mfg. S/N: GAC12

Own. S/N: NONE

Etch: GAC12

Marked Size	Tol Ind	Ref. Pt (µm)	Etch-ID	Material	Style	Deviation at Auxiliary Points					
						1	2	3	4		
Work No.: 119437 These are used gages.											
Original Calibration: 4/2/2019 Operator: TW											
Transfer Master Set: SPCM10 Calibrated: 9/1/2018, Next Due: 8/31/2019.											
Instrument: EC-6 Electronic Gage Block Comparator. Calibrated daily.											
Calibration data is "As Found" unless otherwise noted. Calibration is in accordance with ISO 17025, ISO Guide 25, ISO 10012-1, ANSI/NCSL Z540-1, former MIL-STD-45662A, Webber Quality Manual QCM-1G dated 11/5/14 Webber calibration procedure WCP-C13 9/6/2006. Webber Gage certifies these gage blocks were checked by masters traceable to the National Institute of Standards and Technology. Originals on 5/16/2018 Test No. 683/291518-18.											
Tolerances in accordance with B89 grade AS1.											
Size	Size Tol	Var	Size	Size Tol	Var	Size	Size Tol	Var	Size Tol	Var	
Thru 0.5	+ .30/- .30	.16	Thru 75.0	+ .50/- .50	.18	Thru 250.0	+ 1.20/- 1.20	.25	Half Round	+ .80/- .80	.30
Thru 10.0	+ .20/- .20	.16	Thru 100.0	+ .60/- .60	.20	Thru 300.0	+ 1.40/- 1.40	.25	Base Block	+ .60/- .60	.30
Thru 25.0	+ .30/- .30	.16	Thru 150.0	+ .80/- .80	.20	Thru 400.0	+ 1.80/- 1.80	.30	Sirght Jaw	+ .60/- .60	.30
Thru 50.0	+ .40/- .40	.18	Thru 200.0	+ 1.00/- 1.00	.25	Thru 500.0	+ 2.20/- 2.20	.35	Meas Jaw	+ .60/- .60	.30

Work No.: 119437 These are used gages.

Original Calibration: 4/2/2019 Operator: TW

Transfer Master Set: SPCM10 Calibrated: 9/1/2018, Next Due: 8/31/2019.

Instrument: EC-6 Electronic Gage Block Comparator. Calibrated daily.

Calibration data is "As Found" unless otherwise noted. Calibration is in accordance with ISO 17025, ISO Guide 25, ISO 10012-1, ANSI/NCSL Z540-1, former MIL-STD-45662A, Webber Quality Manual QCM-1G dated 11/5/14 Webber calibration procedure WCP-C13 9/6/2006. Webber Gage certifies these gage blocks were checked by masters traceable to the National Institute of Standards and Technology. Originals on 5/16/2018 Test No. 683/291518-18.

Tolerances in accordance with B89 grade AS1.

Size	Size Tol	Var	Size	Size Tol	Var	Size	Size Tol	Var
Thru 0.5	+ .30/- .30	.16	Thru 75.0	+ .50/- .50	.18	Thru 250.0	+ 1.20/- 1.20	.25
Thru 10.0	+ .20/- .20	.16	Thru 100.0	+ .60/- .60	.20	Thru 300.0	+ 1.40/- 1.40	.25
Thru 25.0	+ .30/- .30	.16	Thru 150.0	+ .80/- .80	.20	Thru 400.0	+ 1.80/- 1.80	.30
Thru 50.0	+ .40/- .40	.18	Thru 200.0	+ 1.00/- 1.00	.25	Thru 500.0	+ 2.20/- 2.20	.35

Uncertainty for Variation in Length (Variation) is: .08 µm through 10 mm, .07 µm through 50 mm, .08 µm through 300 mm and .10 µm through 500 mm.

Reported readings corrected to 68 degrees Fahrenheit (20 degrees C).

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%.

Authorized Signatures

Carl Stearns, Quality Assurance Manager, or

Brian L. Morris, Deputy Quality Assurance Manager



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B150543049190228

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B150543049	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	2/28/19	7/12/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
50	0.0002	40x3	0.0003	10	0.00002		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 10.00006	5. 10.00007	9. 10.00006	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 10.00004	6. 10.00005	10. 10.00005	
As-Left:		As-Left:		3. 10.00008	7. 10.00006	Result	Temperature: 22.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.00005	8. 10.00008	0.000013	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	100.0006	100.0000	0.00012
50	50.0003	50.0000	0.00011
1	0.99997	0.99999	0.000029
0.1	0.10000	0.10000	0.000029
0.01	0.01000	0.01000	0.000029
0.001	0.00100	0.00100	0.000029

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

2/19 RH= 15%. Used software to adjust linearity & span.
Corrected internal calibration weight value.

Report prepared/reviewed by: ServiceTech Date: 2/28/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
Serv.
1516 4th Ave N STE # 1
Billings, MT 59101

Report Number: MTFM02B938283141191212

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XSR16001L	B938283141	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
kg	0.0001	QC012	12/12/19	N/A	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
5	0.0003	4 x 4	0.0002	5	0.0001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.5.0000	5.5.0000	9.5.0000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.5.0000	6.5.0000	10.5.0000	
As-Left:		As-Left:		3.5.0000	7.5.0000	Result	Temperature: 20.2°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.5.0000	8.5.0000	0.00000	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
16	15.9947	16.0001	0.00011
12	11.9960	12.0000	0.00011
8	7.9974	8.0000	0.00011
4	3.9986	4.0000	0.00011
1	0.9995	1.0000	0.00011
0.5	0.4999	0.5000	0.00011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

12/12/2019 RH= 28%. Unit set up new from box. Leveled unit & adjusted span.

Report prepared/reviewed by: J.C. Date: 12/12/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Quality Control Services

Report of Service and Calibration

2340 S.E. 11TH AVENUE
 PORTLAND, OR 97214
 PHONE 503-236-2712

62691

Sold To Montana, State of/Billings-Forensic Serv. PT ID: MTFM02 P.O. No: _____
 Address 1516 4th Ave N STE # 1 Contact: Misty Icard
 City Billings, MT 59101 Phone: 406-255-1104
 Ship To 1516 4th Ave N STE # 1 Billings, MT 59101 Email: micard@mt.gov

No	Item	Make	Model	Serial Number	Location	Contact	Rate	Date Svc'd	Tech	Cust ID
1	Balance	Mettler	XSR1600IL	B938283141	Chemistry	Misty Icard	\$180.00	12-12-11	DAC	

Service / Calibration Certificate of Calibration
 Documentation Requirements Calibration with Data
 A2LA Certificate

Received By: _____ Date: _____

Comments: _____



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
 Serv.
 1516 4th Ave N, Ste #1
 Billings, MT 59101

Report Number: MTFM02B611224107190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105	B611224107	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.00001	QC012	2/27/19	7/24/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
100	0.00005	50 x 2	0.00020	50	0.00005		<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor Temperature: 23.1°C
As-Found:		As-Found:		1.49.99998	5.50.00000	9.50.00002	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.49.99995	6.49.99998	10.49.99999	
As-Left:		As-Left:		3.50.00001	7.49.99996	Result	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.49.99997	8.49.99999	0.000021	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	99.99735	99.99997	0.000048
50	49.99861	49.99998	0.000046
10	9.99777	10.00004	0.000046
1	0.99995	1.00000	0.000045
0.2	0.19995	0.19999	0.000045
0.01	0.00992	0.01002	0.000044

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Weight check at 1mg= 0.00101 grams
 Relative humidity= 11%.

Comments/Info Concerning this Calibration:

2/19 Adjusted linearity & internal calibration with software.

Report prepared/reviewed by: ServiceTech Date: 2/27/19

Technician: J. Colacchio
 Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
 Serv.
 1516 4th Ave N, Ste #1
 Billings, MT 59101

Report Number: MTFM02B607097677190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS4001-S	B607097677	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.1	QC012	2/27/19	7/24/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
2000	0.1	1000 x 4	0.1	2000	0.1		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.2000.0	5.2000.0	9.2000.0	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.2000.0	6.2000.0	10.2000.0	
As-Left:		As-Left:		3.2000.0	7.2000.0	Result	Temperature: 22.9°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.2000.0	8.2000.0	0.00	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
4000	3999.9	3999.9	0.11
3000	3000.0	3000.0	0.11
2000	2000.0	2000.0	0.11
1000	1000.0	1000.0	0.11
500	500.0	500.0	0.11
50	50.0	50.0	0.11

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:
 Relative humidity= 10%.

Comments/Info Concerning this Calibration:

Report prepared/reviewed by: Service Tech Date: 2/27/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Billings - Forensic
 Serv.
 1516 4th Ave N, Ste #1
 Billings, MT 59101

Report Number: MTFM02B604052473190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B604052473	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	2/27/19	7/24/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100 x 3	0.002	100	0.001		<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor
As-Found:		As-Found:		1. 100.001	5. 100.001	9. 100.003	Temperature: 18.0°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.002	6. 100.002	10. 100.002	
As-Left:		As-Left:		3. 100.002	7. 100.002	Result	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.002	8. 100.002	0.0005	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.005	300.003	0.0016
200	200.004	200.002	0.0016
100	100.003	100.001	0.0016
50	50.002	50.000	0.0016
10	10.000	10.000	0.0016
1	1.000	1.000	0.0016

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Weight check at 200mg = 0.200 grams
 Relative humidity = 15%.

Comments/Info Concerning this Calibration:

Report prepared/reviewed by: ServiceTechDC Date: 2/27/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Billings-Forensic
Serv.
1516 4th Ave N, Ste #1
Billings, MT 59101

Report Number: MTFM02B614292141190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B614292141	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	2/27/19	7/24/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100 x 3	0.002	100	0.001		<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor Temperature: 18.3°C
As-Found:		As-Found:		1. 100.001	5. 100.000	9. 100.001	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.001	6. 100.001	10. 100.001	
As-Left:		As-Left:		3. 100.001	7. 100.001	Result	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.001	8. 100.001	0.0003	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.005	300.004	0.0013
200	200.003	200.002	0.0013
100	100.002	100.001	0.0013
50	50.001	50.001	0.0013
10	10.000	10.000	0.0013
1	0.999	0.999	0.0013

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Weight check at 200mg= 0.200 grams
Relative humidity= 15%.

Comments/Info Concerning this Calibration:

Report prepared/reviewed by: ServiceTechX Date: 2/27/19

Technician: J. Colacchio

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Billings-Forensic
 Serv.
 1516 4th Ave N, Ste #1
 Billings, MT 59101

Report Number: MTFM021230500052190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1230500052	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	2/27/19	7/12/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
150	0.002	100x3	0.002	50	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 50.000	5. 49.999	9. 50.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 50.000	6. 50.000	10. 50.000	
As-Left:		As-Left:		3. 50.000	7. 50.000	Result	Temperature: 18.1°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 49.999	8. 50.000	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	299.996	300.000	0.0014
100	99.998	100.000	0.0014
20	20.000	20.000	0.0014
10	10.000	10.000	0.0014
5	5.000	5.000	0.0014
1	1.000	1.000	0.0014

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Weight check at 200mg= 0.200 grams
 Relative humidity= 15%.

Comments/Info Concerning this Calibration:

Report prepared/reviewed by: ServiceTech Date: 2/27/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
Serv.
1516 4th Ave N, Ste #1
Billings, MT 59101

Report Number: MTFM02B604052473190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B604052473	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100 x 3	0.002	100	0.001		<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor
As-Found:		As-Found:		1. 100.000	5. 100.000	9. 100.000	Temperature: 22.7°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.000	6. 100.000	10. 100.000	
As-Left:		As-Left:		3. 100.000	7. 100.000	Result	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.000	8. 100.000	0.0000	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	299.999	299.999	0.0011
200	200.000	200.000	0.0011
100	100.000	100.000	0.0011
50	50.000	50.000	0.0011
10	10.000	10.000	0.0011
1	1.000	1.000	0.0011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

7/19 Weight check at 0.2 g= 0.200 grams

Comments/Info Concerning this Calibration:

7/19 RH= 51%.

Report prepared/reviewed by: Service Tech DC Date: 7/19

Technician: J. Colacchio

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
Serv.
1516 4th Ave N, Ste #1
Billings, MT 59101

Report Number: MTFM02B614292141190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B614292141	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100 x 3	0.002	100	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.99.999	5.99.999	9.99.999	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.99.999	6.99.999	10.99.999	
As-Left:		As-Left:		3.99.999	7.99.999	Result	Temperature: 22.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.99.999	8.99.999	0.0000	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.000	300.000	0.0011
200	200.000	200.000	0.0011
100	99.999	99.999	0.0011
50	50.000	50.000	0.0011
10	10.000	10.000	0.0011
1	1.000	1.000	0.0011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

7/19 Weight check at 0.2 g= 0.200 grams

Comments/Info Concerning this Calibration:

7/19 RH= 51%.

Report prepared/reviewed by: Servitech Date: 7/19

Technician: J. Colacchio

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
Serv.
1516 4th Ave N, Ste #1
Billings, MT 59101

Report Number: MTFM021230500052190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1230500052	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
150	0.002	100x3	0.002	50	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.50.000	5.50.000	9.50.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.50.000	6.50.001	10.50.000	
As-Left:		As-Left:		3.50.000	7.50.000	<u>Result</u>	Temperature: 22.7°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.50.001	8.50.000	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.003	300.001	0.0014
100	100.000	100.000	0.0014
20	20.000	20.000	0.0014
10	10.000	10.000	0.0014
5	5.000	5.000	0.0014
1	1.000	1.000	0.0014

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

7/19 Weight check at 0.2 g= 0.200 grams

Comments/Info Concerning this Calibration:

7/19 RH= 51%.

Report prepared/reviewed by: Service Tech DC Date: 7/19

Technician: J. Colacchio

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Billings - Forensic Serv.
1516 4th Ave N, Ste #1
Billings, MT 59101

Report Number: MTFM02B611224107190720

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105	B611224107	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.00001	QC012	7/20/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
100	0.00005	50 x 2	0.00020	50	0.00005		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 50.00003	5. 50.00001	9. 50.00004	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 50.00001	6. 50.00003	10. 50.00000	
As-Left:		As-Left:		3. 50.00007	7. 50.00006	Result	Temperature: 23.1°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 50.00004	8. 50.00002	0.000022	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	100.00007	100.00005	0.000049
50	50.00003	50.00003	0.000047
10	10.00004	10.00001	0.000047
1	1.00002	1.00001	0.000046
0.2	0.19999	0.20001	0.000046
0.01	0.01000	0.01000	0.000046

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

7/19 Weight check at 0.001g= 0.00099 grams

Comments/Info Concerning this Calibration:

7/19 Adjusted span with internal calibration cycle.

Report prepared/reviewed by: Service Tech DC Date: 7/19

Technician: J. Colacchio

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Billings-Forensic
 Serv.
 1516 4th Ave N, Ste #1
 Billings, MT 59101

Report Number: MTFM02B607097677190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS4001-S	B607097677	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.1	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
2000	0.1	1000 x 4	0.1	2000	0.1		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.2000.0	5.2000.0	9.1999.9	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.2000.0	6.2000.0	10.1999.9	
As-Left:		As-Left:		3.2000.0	7.2000.0	Result	Temperature: 23.0°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.2000.0	8.2000.0	0.04	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
4000	3999.8	3999.9	0.14
3000	2999.8	3000.0	0.14
2000	1999.9	2000.0	0.14
1000	999.9	1000.0	0.14
500	499.9	500.0	0.14
50	50.0	50.0	0.14

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH= 51%. Adjusted span with internal calibration cycle.

Report prepared/reviewed by: Service Tech JC Date: 7/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Traceable Certificate Number: 2898008A
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808
Purchase Order Number: 042519B
Client: MONTANA DEPARTMENT OF JUSTICE
 1516 4TH AVE N
 SUITE 1
 BILLINGS, MT 59101



Date Received: 25 Apr 2019
Date Calibrated: 30 Apr 2019
Recall Date: 30 Apr 2021
Temperature Range: 21.13 °C
Pressure Range: 736.87 mmHg
Relative Humidity Range: 46 %
Air Density Range: 1.1582 mg/cm³
NIST Certificate Number: 684/291344-18

Although there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095)
Condition of Weights: New
Description of Weights: 2 kg Polished Weight, ASTM Class 1, S/N 84Q2

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
2 kg	84Q2.	2.00000171	1.71	Y	2.00000171	1.71	Y	0.39	2	5.0	124Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 30 Apr 2019

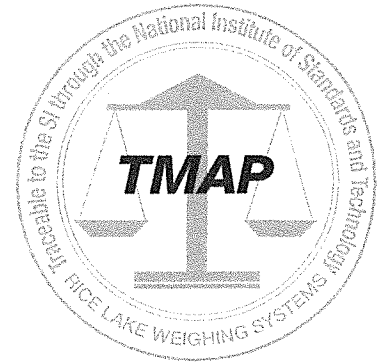
Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



Traceable Certificate Number: 2898008
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808
Purchase Order Number: 042519B
Client: MONTANA DEPARTMENT OF JUSTICE
 1516 4TH AVE N
 SUITE 1
 BILLINGS, MT 59101



Date Received: 25 Apr 2019
Date Calibrated: 30 Apr 2019
Recall Date: 30 Apr 2021
Temperature Range: 21.21 °C
Pressure Range: 737.31 mmHg
Relative Humidity Range: 47 %
Air Density Range: 1.1585 mg/cm³
NIST Certificate Number: 684/291344-18

Although there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095)
Condition of Weights: New
Description of Weights: 200 g Polished Weight, ASTM Class 1, S/N 84Q1 with dot

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
200 g	84Q1.	200.000188	0.188	Y	200.000188	0.188	Y	0.044	2	0.50	699Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 30 Apr 2019

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



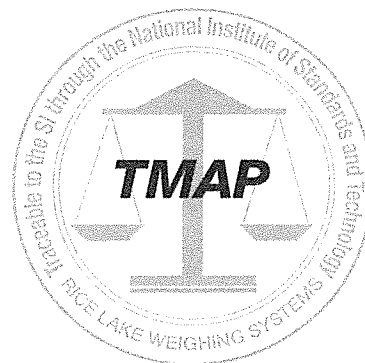
Traceable Certificate Number: 2890599E
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA , MT 59808

Purchase Order Number: CC
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101

Date Received: 08 Apr 2019
Date Calibrated: 01 May 2019
Recall Date: 01 May 2021
Temperature Range: 21.13 °C
Pressure Range: 731.84 mmHg
Relative Humidity Range: 54 %
Air Density Range: 1.1494 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 1 kg Polished Weight, ASTM Class 1, S/N 83J6



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
1 kg	83J6	1.00000092	0.92	Y	1.00000092	0.92	Y	0.11	2	2.5	699Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade Items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:
Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



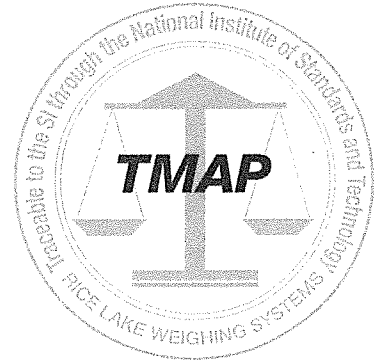
Traceable Certificate Number: 2890599D
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101

Date Received: 08 Apr 2019
Date Calibrated: 01 May 2019
Recall Date: 01 May 2021
Temperature Range: 21.19 °C
Pressure Range: 731.98 mmHg
Relative Humidity Range: 51 %
Air Density Range: 1.1497 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 100 g Polished Weight, ASTM Class 1, S/N 83J5



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
100 g	83J5	100.000057	0.057	Y	100.000057	0.057	Y	0.026	2	0.25	1470Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:
Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

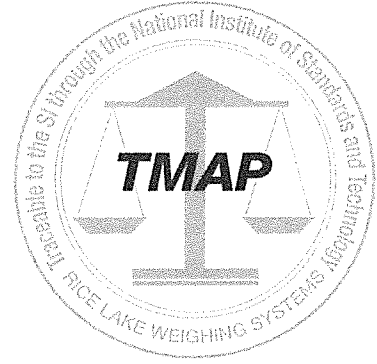
Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.





Traceable Certificate Number: 2890599C
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101

Date Received: 08 Apr 2019
Date Calibrated: 02 May 2019
Recall Date: 02 May 2021
Temperature Range: 21.21 °C
Pressure Range: 733.48 mmHg
Relative Humidity Range: 51 %
Air Density Range: 1.1519 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 10 g Polished Weight, ASTM Class 1, S/N 83J4

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
10 g	83J4	10.000000	0.000	Y	10.000000	0.000	Y	0.010	2	0.050	1470Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade Items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:
Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



Traceable Certificate Number: 2890599B
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101

Date Received: 08 Apr 2019
Date Calibrated: 02 May 2019
Recall Date: 02 May 2021
Temperature Range: 21.11 °C
Pressure Range: 734.40 mmHg
Relative Humidity Range: 48 %
Air Density Range: 1.1542 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 05
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 1 g Polished Weight, ASTM Class 1, S/N 83J3



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Assumed	
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass					Set Used	Density (g/cm ³)
1 g	83J3	1.000071	0.0071	Y	1.000071	0.0071	Y	0.0022	2	0.034	650Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



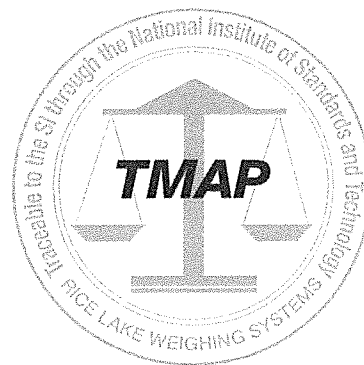
Traceable Certificate Number: 2890599A
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA , MT 59808

Purchase Order Number: CC
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101

Date Received: 08 Apr 2019
Date Calibrated: 02 May 2019
Recall Date: 02 May 2021
Temperature Range: 21.09 °C
Pressure Range: 734.43 mmHg
Relative Humidity Range: 52 %
Air Density Range: 1.1539 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 05
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 100 mg Polished Leaf Weight, ASTM Class 1, S/N 83J2



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
100 mg	83J2	100.0042	0.0042	Y	100.0042	0.0042	Y	0.0018	2	0.010	650Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



Traceable Certificate Number: 2912942
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: FSDE
Client: FORENSIC SCIENCE DIVISION EAST
 1516 4TH AVE N SUITE 1
 BILLINGS, MT 59101



Date Received: 28 May 2019
Date Calibrated: 04 Jun 2019
Recall Date: 04 Jun 2021
Temperature Range: 20.94 °C
Pressure Range: 724.54 mmHg
Relative Humidity Range: 48 %
Air Density Range: 1.1394 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 03
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: New
Description of Weights: 10 mg Leaf Weight, ASTM Class 1, S/N 86GE (Updated Recall to 2 years, 26 Feb 2020)

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
10 mg	86GE	10.0022	0.0022	Y	10.0022	0.0022	Y	0.0012	2	0.010	503Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:
Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 26 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



625 East Bunker Court
Vernon Hills, Illinois 60061
PH: 866-466-6225
Fax: 847-327-2993
www.innocalsolutions.com

NIST Traceable Calibration Report



REPORT NUMBER
1601825

Reference Number: 1381316
PO Number: DCLARK092619

Montana State Crime Lab
2679 Palmer Street
Missoula, MT 59808 United States

Manufacturer: Gilmont Instruments Inc.
Model Number: GF-2560
Description: Flowmeter, Shielded Tube Sz 15
Asset Number: CP345031
Serial Number: CP345031
Procedure: See report

Calibration Date: 10/31/2019
Calibration Due Date: 10/31/2020
Condition As Found: In Tolerance
Condition As Left: In Tolerance, No adjustment

Remarks:

Received serial #CP345031 back from Dick Munns, Co., on 11/11/2019. All data is traceable to NIST. A copy of your report #495915.19 is attached to this cover sheet.

Temperature: 21° C
Humidity: 25% RH
Rpt. No.: 1601825

Calibration Performed By:				Quality Reviewer:	
Name	ID #	Title	Phone	Name	Date
Maahs, Charlene	372	Metrologist	847-327-5344	Pietronicco, Mike	11/11/2019

This report may not be reproduced, except in full, without written permission of Innocal. The results stated in this report relate only to the items tested or calibrated. Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A, ANSI/NCSL Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.



CERTIFICATE OF CALIBRATION

CUSTOMER:	INNOCAL VERNON HILLS, IL	CALIBRATION DATE:	10/31/19
PO NUMBER:	1230199	CALIBRATION DUE:	10/31/20
INST. MANUFACTURER:	GILMONT	PROCEDURE:	NAVAIR 17-20MG-02
INST. DESCRIPTION:	FLOWMETER (BLACK GLASS FLOAT)	CALIBRATION FLUID:	AIR @ 14.7 PSI 70F
MODEL NUMBER:	GF-2560 (5 - 80 SLPM AIR)	STANDARD(S) USED:	A4 DUE 06-2020
SERIAL NUMBER:	CP345031	AS RECEIVED:	WITHIN SPECS
RATED UNCERTAINTY:	+/- 5% RD OR 2mm OF THE SCALE LENGTH, WHICHEVER IS GREATER	AMBIENT CONDITIONS:	765mmHGA 25% RH 70F
UNCERTAINTY GIVEN:	+/- 0.19% RD K=2	CERTIFICATE FILE #:	495915.19
NOTES:	AS RECEIVED/AS LEFT WITHIN SPEC REFERENCE CONDITIONS ARE 760mmHGA 70F		

TEST POINT NUMBER	UUT INDICATED SLPM	DM.STD. ACTUAL SLPM	% RD ERROR
1	5	4.814	-3.720
2	10	9.853	-1.470
3	20	19.744	-1.280
4	40	38.492	-3.770
5	50	48.763	-2.474
6	60	58.124	-3.127
7	80	77.696	-2.880

STANDARDS USED:		
A5 VOLUME PROVER +/- 0.04% BY VOLUME TRACE # 1329407628, 89576	DUE	05/28/20
AML800 VOLUME PROVER +/- 0.15% BY VOLUME TRACE # 144613547, 1424683640	DUE	01/04/20
A24 TEMP STD. HART SCIENTIFIC +/- 0.027 F TRACE# 1553180963	DUE	03/21/20

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

Dick Munns Company • 11133 Winners Circle • Los Alamitos, CA 90720
Phone (714) 827-1215

This Calibration Certificate shall not be reproduced, copied, in full, without approval by DICK MUNNS COMPANY. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration.

Date:

10/31/2019

Approved By:

Calibration Technician:



Calibration complies with ISO/IEC 17025, ANSI/NCSL Z540-1, and 9001



Cert. No.: 4085-10365035

Traceable® Certificate of Calibration for Digital Hygrometer

Customer :Montana Forensic Science Div. ,2679 Palmer Street ,Missoula ,MT-59808 ,U.S.A.

Instrument Identification:

Model: 4085, S/N: 150166114 Manufacturer: Control Company

Standards/Equipment:

Table with 4 columns: Description, Serial Number, Due Date, NIST Traceable Reference. Rows include Chilled Mirror Hygrometer and Digital Thermometer.

Certificate Information:

Technician: 333 Procedure: CAL-20 Cal Date: 27 Apr 2019 Cal Due Date: 27 Apr 2020
Test Conditions: 50.95%RH 24.27°C 1014mBar

Calibration Data:

Table with 11 columns: Unit(s), Nominal, As Found, In Tol, Nominal, As Left, In Tol, Min, Max, ±U, TUR. Rows show calibration results for %RH and °C.

This certificate indicates Traceability to standards provided by (NIST) National Institute of Standards and Technology and/or a National Standards Laboratory.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement : (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±((Max-Min)/2); Min=As Left Nominal(Rounded) - Tolerance; Max= As Left Nominal(Rounded) + Tolerance;

Nicol Rodriguez (Signature)

Nicol Rodriguez, Quality Manager

Aaron Justice (Signature)

Aaron Justice, Technical Manager

Note :

Maintaining Accuracy:

In our opinion once calibrated your Digital Hygrometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Hygrometer change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 12554 Galveston RD Suite B230 Webster TX USA 77598
Phone 281 482-1714 Fax 281 482-9448 sales@control3.com www.control3.com

Control Company is an ISO/IEC 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.
Control Company is ISO 9001:2008 Quality Certified by DNV GL, Certificate No. CERT-01805-2006-AQ-HOU-RvA.
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).

STATE OF MONTANA
DEPARTMENT OF JUSTICE
FORENSIC SCIENCE DIVISION

Tim Fox
Attorney General



2679 Palmer Street
Missoula, MT 59808

September 26, 2019

On 9/4/19, Innocal performed the yearly calibration on the flow meter, serial number CP232500 (see attached calibration report). The flow meter was returned to the laboratory with a calibration report listing two flow levels as "Out of Tolerance". These levels were 40.0 L/min and 50.0 L/min. Innocal made attempted adjustments to the flow meter but was unsuccessful in calibrating the unit within specifications. It should be noted that the laboratory only uses the flow levels of 5.0 L/min, 15 L/Min and 30.0 L/min in the calibration of the Intoxilyzer 8000 flow sensor, so the stated levels that were out of tolerance would not have affected the Intoxilyzer 8000 flow sensor calibration. Also, the tolerance level for the Innocal calibration is +/- 5%, while the tolerance level for the laboratory is +/- 10%. Using the laboratory tolerance levels, the calibration would have been within specifications. The flow meter, serial number CP232500, will be phased out of use and replaced with a similar calibrated flow meter.

Ben Vetter

NIST Traceable Calibration Report



1594344

Reference Number: 1378998
 PO Number: BVETTER082219

Montana State Crime Lab
 2679 Palmer Street
 Missoula, MT 59808 United States

Manufacturer: Gilmont Instruments Inc.
Model Number: GF-2560
Description: Flowmeter, Shielded Tube Sz 15
Asset Number: CP232500
Serial Number: CP232500
Procedure: DS Universal Flowmeter 10

Calibration Date: 09/04/2019
Calibration Due Date:
Condition As Found: Out of Tolerance
Condition As Left: OOT, Return As Is

Remarks:

NIST-traceable measurements were taken on the unit referenced above in accordance with customer requirements, published specifications and the lab's standard operating procedures. Unit was received out-of-tolerance as indicated in the as-found data; attempts to adjust the display were unsuccessful in bringing it within specifications. As-left data reflects measurements taken after attempted adjustments.
 This Calibration performed with Air at an STP of 21.1°C and 1 atm.
 RETURNED AS-IS: Unit was returned to customer as-is per customer's request.

Standards Utilized

Asset No.	Manufacturer	Model No.	Description	Cal. Date	Due Date
CP55890	Hart Scientific	5610-6	Thermometer, Thermistor Probe	04/04/2019	04/30/2020
CPM100	Hart Scientific	1521	Temperature Indicator, Handheld, 1 Channel	04/04/2019	04/30/2020
CPM102	DH Instruments Inc.	RPM3 A0100B	Calibrator, Reference Pressure Monitor	01/18/2018	10/31/2019
CPM103	DH Instruments Inc.	MOLBOX1-A	Calibrator, Mass Flow Terminal	10/29/2018	10/31/2019
CPM108	DH Instruments Inc.	3E4-VCR-V-Q	Calibrator, Mass Flow Element	05/08/2019	05/31/2020
CPM109	DH Instruments Inc.	3E4-VCR-V-Q	Calibrator, Mass Flow Element	10/31/2018	10/31/2019

Calibration Data

FUNCTION TESTED	Nominal Value	As Found	Out of Tol	As Left	Out of Tol	CALIBRATION TOLERANCE
Flow Accuracy	5.00 L/min	4.55		Same		3.00 to 7.00 L/min [EMU 0.013 L/min][TUR 153:1]
	10.00 L/min	9.50		Same		8.00 to 12.00 L/min [EMU 0.024 L/min][TUR 83:1]
	15.00 L/min	14.36		Same		13.00 to 17.00 L/min [EMU 0.036 L/min][TUR 56:1]
	20.00 L/min	19.28		Same		18.00 to 22.00 L/min [EMU 0.045 L/min][TUR 44:1]
	30.00 L/min	28.50		Same		28.00 to 32.00 L/min [EMU 0.068 L/min][TUR 30:1]
	40.00 L/min	37.60	X	Same	X	38.00 to 42.00 L/min [EMU 0.09 L/min][TUR 22:1]
	50.00 L/min	47.28	X	Same	X	47.50 to 52.50 L/min [EMU 0.11 L/min][TUR 22:1]
	60.00 L/min	57.21		Same		57.00 to 63.00 L/min [EMU 0.13 L/min][TUR 22:1]
	70.00 L/min	67.17		Same		66.50 to 73.50 L/min [EMU 0.16 L/min][TUR 22:1]
	80.00 L/min	78.73		Same		76.00 to 84.00 L/min [EMU 0.18 L/min][TUR 22:1]

Temperature: 21° C
Humidity: 48% RH
Rpt. No.: 1594344

Calibration Performed By:				Quality Reviewer:	
Name	ID #	Title	Phone	Name	Date
Khan, Suroz	362	Metrologist	847-327-5320	Szplit, Tony	09/04/2019

This report may not be reproduced, except in full, without written permission of Innocal. The results stated in this report relate only to the items tested or calibrated. Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A, ANSI/NCCL Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.

Report Number: 1594344

Gilmont Instruments Inc. / GF-2560, Flowmeter, Shielded Tube Sz 15





QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B150543049190228

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B150543049	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	2/28/19	7/12/18	7/2019

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
50	0.0002	40x3	0.0003	10	0.00002		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 10.00006	5. 10.00007	9. 10.00006	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 10.00004	6. 10.00005	10. 10.00005	
As-Left:		As-Left:		3. 10.00008	7. 10.00006	Result	Temperature: 22.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.00005	8. 10.00008	0.000013	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	100.0006	100.0000	0.00012
50	50.0003	50.0000	0.00011
1	0.99997	0.99999	0.000029
0.1	0.10000	0.10000	0.000029
0.01	0.01000	0.01000	0.000029
0.001	0.00100	0.00100	0.000029

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

2/19 RH= 15%. Used software to adjust linearity & span.
Corrected internal calibration weight value.

Report prepared/reviewed by: ServiceTech Date: 3/28/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Dear Customer,

Enclosed are your Certificates of Calibration.

Please store them in a safe place so they are available to you, your staff and for auditors if they are needed.

If you have any questions please call us.

Thank you for your continued business.

Quality Control Services



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01B316238902190716

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303-S	B316238902	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.002	100 x 3	0.002	100	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 100.000	5. 100.001	9. 100.001	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.000	6. 100.000	10. 100.000	
As-Left:		As-Left:		3. 100.000	7. 100.001	Result	Temperature: 22.3°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.000	8. 100.001	0.0005	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.003	300.001	0.0015
200	200.002	200.000	0.0015
100	100.001	100.000	0.0015
50	50.001	50.000	0.0015
10	10.000	10.000	0.0015
1	1.000	1.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 52.3%

Comments/Info Concerning this Calibration:

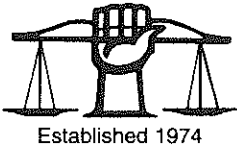
7/19 Adjusted span

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill
 Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM011230210070190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1230210070	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION		ENVIRONMENTAL CONDITIONS	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
150	0.002	100x3	0.002	50	0.001	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor Temperature: 22.2°C	
As-Found:		As-Found:		1. 50.000	5. 50.000		9. 50.001
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 50.000	6. 50.001		10. 50.000
As-Left:		As-Left:		3. 50.000	7. 50.000		Result
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 50.000	8. 50.001	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.012	300.001	0.0015
100	100.004	100.000	0.0015
20	20.001	20.000	0.0015
10	10.001	10.000	0.0015
5	5.000	5.000	0.0015
1	1.000	1.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:
 7/19 RH = 44.1%

Comments/Info Concerning this Calibration:
 7/19 Adjusted span

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill
 Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01B150543049190716

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B150543049	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	7/16/19	2/28/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
50	0.0002	40x3	0.0003	10	0.00001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 10.00000	5. 10.00001	9. 10.00001	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 10.00003	6. 10.00001	10. 10.00003	
As-Left:		As-Left:		3. 10.00004	7. 10.00001	Result	Temperature: 22.0°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.00001	8. 9.99998	0.000017	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	100.0000	100.0000	0.00012
50	50.0001	50.0000	0.00012
1	0.99999	1.00001	0.000036
0.1	0.09998	0.09999	0.000036
0.01	0.00999	0.01001	0.000035
0.001	0.00100	0.00100	0.000035

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 45.7%

Comments/Info Concerning this Calibration:

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM011128273914190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS603SDR	1128273914	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001/0.01	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.002	300x2	0.02	100	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 100.000	5. 99.999	9. 100.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.000	6. 99.999	10. 100.000	
As-Left:		As-Left:		3. 100.000	7. 99.999	Result	Temperature: 22.7°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.000	8. 100.000	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
600	600.01	599.99	0.011
400	400.00	400.00	0.011
200	200.00	200.00	0.011
100	99.998	99.999	0.0015
50	50.000	50.000	0.0015
10	9.999	10.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 44.8%

Comments/Info Concerning this Calibration:

7/19 Adjusted span.

Report prepared/reviewed by: J. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM011122193225190716

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler/Toledo	PG403-S	1122193225	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100x4	0.002	100	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 100.000	5. 100.000	9. 100.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.000	6. 100.000	10. 100.001	
As-Left:		As-Left:		3. 100.000	7. 100.001	Result	Temperature: 22.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.001	8. 100.000	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
400	400.018	399.999	0.0015
300	300.012	300.001	0.0015
200	200.008	200.000	0.0015
100	100.004	100.001	0.0015
50	50.002	50.000	0.0015
10	10.001	10.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 Drafty area. Glass replaced. RH = 44.2%

Comments/Info Concerning this Calibration:

7/19 Adjusted span.

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com

Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM017125020127190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	SP202	7125020127	#1	Lat Prints
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		REPEATABILITY	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:
100	0.01	100x2	0.01	100	0.01
As-Found:		As-Found:		As-Found:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
As-Left:		As-Left:		As-Left:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>

CALIBRATION DATA

Standard	As-Found	As-Left
200	200.06	200.00
150	150.04	150.00
100	100.03	100.00
50	50.01	50.00
20	20.00	20.00
5	5.00	5.00

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin.

Technician: G. Cahill

Signature: 

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM018026261088190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	AV812	8026261088	N/A	Serology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/15/19	7/11/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION		ENVIRONMENTAL CONDITIONS	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
250	0.03	400x2	0.02	100	0.01	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor Temperature: 18.9°C	
As-Found:		As-Found:		1. 100.00	5. 100.00		9. 100.00
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.00	6. 100.00		10. 99.99
As-Left:		As-Left:		3. 100.00	7. 100.00		Result
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.00	8. 99.99	0.004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
800	800.04	799.99	0.014
600	600.03	600.00	0.014
400	400.02	400.01	0.014
200	200.01	200.00	0.014
100	100.00	100.00	0.014
50	50.00	50.00	0.014

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 44.7%. Drafty area.

Comments/Info Concerning this Calibration:

7/19 Adjusted span.

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

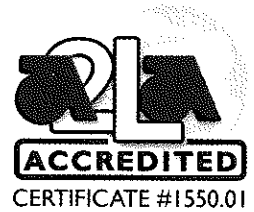
THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM011115162790190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	AB54	1115162790	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
50	0.0002	25x2	0.0003	10	0.0001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 10.0000	5. 10.0000	9. 10.0001	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 9.9999	6. 10.0000	10. 9.9999	
As-Left:		As-Left:		3. 10.0000	7. 9.9999	Result	Temperature: 20.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.0000	8. 10.0000	0.00006	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
50	49.9992	50.0000	0.00017
20	19.9997	19.9999	0.00017
5	5.0001	5.0000	0.00017
2	1.9999	2.0000	0.00017
1	1.0001	1.0000	0.00017
0.1	0.1000	0.1000	0.00017

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 50.8%

Comments/Info Concerning this Calibration:

7/19 Adjusted span & levelled balance.

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM011118110508190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	AG245	1118110508	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS		
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:				
100	0.0003	50x4	0.0002	10	0.00002		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
As-Found:		As-Found:		1. 10.00000	5. 9.99999	9. 9.99999	Good Fair Poor		
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 9.99998	6. 9.99999	10. 10.00000	Temperature: 20.5°C		
As-Left:		As-Left:		3. 10.00000	7. 10.00000	Result			
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.00000	8. 10.00002	0.000010			

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
200	200.0030	199.9999	0.00012
150	150.0023	149.9999	0.00012
100	100.0016	100.0001	0.00011
40	40.00056	40.00004	0.000027
20	20.00021	20.00003	0.000026
1	1.00003	0.99998	0.000024

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/18: Balance is used in an environment that is susceptible to draft.
RH = 50.3%

Comments/Info Concerning this Calibration:

7/19 Level balance & adjusted span.

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM011229290093190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1229290093	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
150	0.002	100x3	0.002	50	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 50.000	5. 50.000	9. 49.999	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 50.000	6. 50.000	10. 49.999	
As-Left:		As-Left:		3. 50.000	7. 50.000	Result	Temperature: 21.1°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 50.000	8. 50.000	0.0004	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.006	300.001	0.0014
100	100.002	100.000	0.0014
20	20.001	20.000	0.0014
10	10.000	10.000	0.0014
5	5.000	5.000	0.0014
1	1.000	1.000	0.0014

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 49.4%

Comments/Info Concerning this Calibration:

7/19 Level balance & adjusted span

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0117985190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	CT1200S	17985	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.1	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
500	0.2	600x2	0.2	500	0.1		<input type="checkbox"/> Good
As-Found:		As-Found:		1.500.0	5.500.0	9.500.0	<input checked="" type="checkbox"/> Fair
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.500.0	6.500.0	10.500.0	<input type="checkbox"/> Poor
As-Left:		As-Left:		3.500.0	7.499.9	<u>Result</u>	Temperature: 20.8°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.500.0	8.499.9	0.04	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
1200	1200.4	1200.0	0.14
800	800.3	800.0	0.14
600	600.2	600.0	0.14
400	400.1	400.1	0.14
200	200.0	200.0	0.14
100	100.0	100.0	0.14

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/18: Balance is used in an environment susceptible to draft. RH = 49.9%

Comments/Info Concerning this Calibration:

7/19 Adjusted span.

Report prepared/reviewed by: D. Thompson Date: 7/17/19

Technician: G. Cahill

Signature: [Signature]

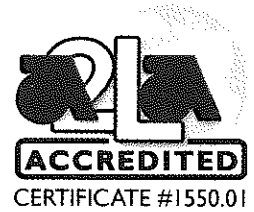
THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01C8656190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
pH Meter	Corning	320	C8656	N/A	Serology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
mV/pH	1mV 0.01pH	QC002/COR006	7/15/19	7/9/18	7/2020

PROBE FUNCTIONAL CHECKS

PROBE SPAN/OFFSET:	PROBE pH TEST		
	Std	As-Found	As-Left
pH 4 176mv	4	4.06	4.03
pH 7 0mv	7	6.97	7.01
pH 10 -177mv	10	9.98	10.01

ACCREDITED CALIBRATION DATA mV TEST

Standard	As-Found	As-Left	Uncertainty
177	179	176	0.1
0	1	0	0.1
-177	-170	-177	0.1

TEMPERATURE CHECK

Standard	Instrument	Uncertainty
0°C	0°C	0.0

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
pH Buffers	Control Co.	4-7-10	QCST2	12/20/18	12/2020	By lot codes
Multimeter	Fluke	175	31640341	8/10/17	8/2019	3567152

Permanent Information Concerning this Equipment:
7/15 No ATC probe.

Comments/Info Concerning this Calibration:
7/19 Adj. pH/mV, cleaned probe.

Report prepared/reviewed by: D. Thompson Date: 7/12/19

Technician: G. Cahill
Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com

Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01EC62A190715

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
pH Meter	IQ Scientific	IQ125	EC62A	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
pH	0.1pH	QC002	7/15/19	7/9/18	7/2020

PROBE FUNCTIONAL CHECKS

PROBE SPAN/OFFSET:	PROBE pH TEST:		
	Std	As-Found	As-Left
pH 4	4	4.2	3.9
pH 7	7	6.8	7.0
pH 10	10	9.6	10.1

CALIBRATION CHECKPOINTS AND DATA

mV TEST

Standard	As-Found	As-Left

TEMPERATURE CHECK

Standard	Instrument
0°C	0°C

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
pH Buffers	Control Co.	4-7-10	QCST2	12/20/18	12/2020	By lot codes
Multimeter	Fluke	175	31640341	8/10/17	8/2019	3567152

Permanent Information Concerning this Equipment:

No mV or temperature readings on this unit, pH only.

Comments/Info Concerning this Calibration:

7/19 Adjusted Cal. Std. Temp. 20.6

Technician: G. Cahill

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015427XH605510190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5430	5427XH605510	N/A	DNA Extraction
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C/RPM	0.1°C/100RPM	QC108	7/16/19	7/9/18	7/2020

Environmental Temperature: 20.90 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	498	500	498	500	0.17
1000	999	1000	999	1000	0.17
5000	5007	5000	5007	5000	2
8000	8005	8000	8005	8000	2
10000	10009	10000	10009	10000	2
13000	13005	13000	13005	13000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

7/18 RPM Readability 10 / 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 38.2%

Report prepared/reviewed by: [Signature] Date: 7/16/19

Technician: G. Cahill
Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015452AJ760516190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5452	5452AJ760516	N/A	DNA Extraction
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C/RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020

Environmental Temperature: 20.70 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
1000	1012	1000	1012	1000	0.17
4500	4524	4500	4524	4500	2
12000	12033	12000	12033	12000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Unit rpm settings are x1000. RPM Readability 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 38.6%

Report prepared/reviewed by: *[Signature]*

Date: 7/16/19

Technician: G. Cahill

Signature: *[Signature]*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015452ZR658641190716

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5452	5452ZR658641	N/A	DNA Extraction
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/16/19	7/19/18	7/2020

Environmental Temperature: 21.40 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
1000	1011	1000	1011	1000	0.17
4500	4519	4500	4519	4500	2
12000	12034	12000	12034	12000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Unit rpm settings are x1000, RPM readability 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 37.2%

Report prepared/reviewed by: Date: 7/16/19

Technician: G. Cahill
Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015804XG913539190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5804	5804XG913539	N/A	PCR Post Prep
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/10RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 23.60 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	502	500	502	500	0.17
1000	1003	1000	1003	1000	0.17
2250	2258	2250	2258	2250	0.17
3700	3715	3700	3715	3700	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

RPM Readability 10

Comments/Information Concerning this Calibration

7/19 Environmental RH = 33.7%

Report prepared/reviewed by: JLC Date: 7/16/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015452AJ960535190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5452	5452AJ960535	N/A	PCR Preparation
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020

Environmental Temperature: 21.30 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
1000	1012	1000	1012	1000	0.17
4500	4521	4500	4521	4500	2
12000	12043	12000	12043	12000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Unit rpm settings are x1000. RPM Readability 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 35.9%

Report prepared/reviewed by: *JCL* Date: 7/16/19

Technician: G. Cahill
Signature: *G. Cahill*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01150760AA170190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Drucker	755VES	150760AA170	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
	N/A/50RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 22.10 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	498	500	498	500	0.17
2000	2008	2000	2008	2000	0.17
3400	3412	3400	3412	3400	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

RPM Readability 50

Comments/Information Concerning this Calibration

7/19 Environmental RH = 48.2%

Report prepared/reviewed by: Jac Date: 7/16/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01181209AA096190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Drucker	755VES	181209AA096	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
	N/A/50RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 20.50 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	502	500	502	500	0.17
2000	1998	2000	1998	2000	0.17
3400	3405	3400	3405	3400	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

RPM Readability 50

Comments/Information Concerning this Calibration

7/19 Environmental RH = 50.2%

Report prepared/reviewed by: *Gal* Date: 7/16/19

Technician: G. Cahill
Signature: *GC*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM0160021119190715

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Drucker	755VES	60021119	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
	N/A/50RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 20.90 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	498	500	498	500	0.17
2000	2004	2000	2004	2000	0.17
3400	3406	3400	3406	3400	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

RPM Readability 50

Comments/Information Concerning this Calibration

7/19 Environmental RH = 49.2%

Report prepared/reviewed by: *gac* Date: 7/16/19

Technician: G. Cahill
 Signature: *gac*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01108N0126190715

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Fisher Scientific	Marathon 16KM	108N0126	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 21.60 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
1000	999	1000	999	1000	0.17
7000	7129	7000	7129	7000	2
10000	10040	10000	10040	10000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

RPM Readability 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 48.1%

Report prepared/reviewed by: *JAC* Date: 7/16/19

Technician: G. Cahill

Signature: *MCZ*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0112118574190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	12118574	00573	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

Temperature

Check Point	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Probe Position	Uncertainty
6	5.9	8	5.9	8	Top	0.4
6	6.2	8	6.2	8	Middle	0.4
6	6.6	8	6.6	8	Bottom	0.4

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	5111	17060027	8/17/18	8/2019	20181686

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/received by: *PL* Date: 7/16/19

Technician: G. Cahill

Signature: *GC*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0112144677190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	12144677	00574	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

Temperature

Check Point	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Probe Position	Uncertainty
4	3.9	5	3.9	5	Top	0.4
4	4.3	5	4.3	5	Middle	0.4
4	4.7	5	4.7	5	Bottom	0.4

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	51II	17060027	8/17/18	8/2019	20181686

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/recieved by: *Shu* Date: 7/16/19

Technician: G. Cahill
Signature: *[Signature]*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM017162275190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	7162275	00941	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

Check Point	Standard As-Found	Instrument As-Found	Temperature		Probe Position	Uncertainty
			Standard As-Left	Instrument As-Left		
4	1.3	2	1.3	2	Top	0.4
4	0.8	2	0.8	2	Middle	0.4
4	0.5	2	0.5	2	Bottom	0.4

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	5111	17060027	8/17/18	8/2019	20181686

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/recieved by: *Jac* Date: 7/16/19

Technician: G. Cahill
Signature: *GC*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015427XH005511190715

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5430	5427XH005511	N/A	Y Screening
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 21.20 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	501	500	501	500	0.17
1000	1004	1000	1004	1000	0.17
5000	5005	5000	5005	5000	2
8000	8007	8000	8007	8000	2
10000	10005	10000	10005	10000	2
13000	13007	13000	13007	13000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

7/17 RPM Readability 10 /100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 37.4%

Report prepared/reviewed by: *AC* Date: 7/16/19

Technician: G. Cahill
Signature: *GC*

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015427XH305512190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5430	5427XH305512	N/A	Y Screening
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020

Environmental Temperature: 20.10 °C

CALIBRATION DATA

RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	500	500	500	500	0.17
1000	1002	1000	1002	1000	0.17
5000	5004	5000	5004	5000	2
8000	8003	8000	8003	8000	2
10000	10001	10000	10001	10000	2
13000	13004	13000	13004	13000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

7/18 RPM Readability 10 / 100

Comments/Information Concerning this Calibration

7/19 Environmental RH = 63.4%

Report prepared/reviewed by: AC Date: 7/16/19

Technician: G. Cahill
Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0115016190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Ohaus	I20Wx5kg	15016	N/A	Morgue
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
kg	0.0005	QC033	7/16/19	7/11/18	7/2020

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: Tol: 2 0.0015	Test Wt: Tol: HB44 HB44	Test Wt: Tol: 0.5 0.0010	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Good Fair Poor
As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	Temperature: 21.6°C
As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
5	5.0005	5.0000	0.00029
3	3.0000	3.0000	0.00029
2	2.0000	2.0000	0.00029
1	1.0000	1.0000	0.00029
0.5	0.5000	0.5000	0.00029
0.2	0.2000	0.2000	0.00029

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 49.7%

Comments/Information Concerning this Calibration

7/19 Adjusted level

Report prepared/reviewed by: D. Thompson

Date: 7/22/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0122271014190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Denver	MZ-11	22271014	N/A	Morgue
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	1	QC033	7/16/19	7/11/18	7/2020

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 5000 Tol: 2	Test Wt: 5000x2 Tol: 2	Test Wt: 2000 Tol: 1	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor Temperature: 21.6°C
As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Found: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	
As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	As-Left: Pass: <input checked="" type="checkbox"/> Fail: <input type="checkbox"/>	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
10000	10001	10000	0.5
7000	7000	7000	0.5
5000	5000	5000	0.5
3000	3000	3000	0.5
1000	1000	1000	0.5
500	500	500	0.5

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/18: Back-up balance. Stored on shelf. 7/19 RH = 49.7%

Comments/Information Concerning this Calibration

7/19 Adjusted span

Report prepared/reviewed by: D. Thompson

Date: 7/22/18

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01B151556310190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B151556310	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
50	0.0002	40x3	0.0003	10	0.00001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 10.00000	5. 9.99999	9. 10.00001	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 10.00003	6. 10.00002	10. 10.00001	
As-Left:		As-Left:		3. 9.99999	7. 9.99999	Result	Temperature: 22.0°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 10.00001	8. 9.99998	0.000015	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
100	100.0005	100.0000	0.00012
50	50.0003	49.9999	0.00012
1	1.00006	1.00001	0.000034
0.1	0.10002	0.09999	0.000033
0.01	0.00999	0.01001	0.000033
0.001	0.00099	0.00100	0.000033

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

RH = 41.7%

Comments/Info Concerning this Calibration:

7/19 Adjusted span

Report prepared/reviewed by: D. Thompson

Date: 7/22/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM011129070836190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS16001L	1129070836	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.1	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
5000	0.2	5000x3	0.2	5000	0.1		<input type="checkbox"/> Good
As-Found:		As-Found:		1. 5000.0	5. 5000.1	9. 5000.0	<input checked="" type="checkbox"/> Fair
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 5000.1	6. 5000.1	10. 5000.0	<input type="checkbox"/> Poor
As-Left:		As-Left:		3. 5000.1	7. 5000.0	Result	Temperature: 22.4°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 5000.0	8. 5000.0	0.05	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
15000	15000.1	15000.1	0.15
10000	9999.9	10000.0	0.15
5000	4999.9	5000.0	0.15
1000	1000.0	1000.0	0.15
500	500.0	500.0	0.15
100	100.0	100.0	0.15

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/19 RH = 45.5%

Comments/Info Concerning this Calibration:

7/19 Adjusted span

Report prepared/reviewed by: D. Thompson Date: 7/22/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM011128273913190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS603SDR	1128273913	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001/0.01	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.002	300x2	0.02	100	0.001		<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1.100.000	5.100.000	9.100.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2.100.000	6.100.000	10.100.001	
As-Left:		As-Left:		3.100.001	7.99.999	Result	Temperature: 22.3°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4.100.000	8.100.000	0.0005	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
600	600.00	600.00	0.011
400	400.00	400.00	0.011
200	200.00	200.00	0.011
100	100.001	100.000	0.0016
50	50.001	49.999	0.0016
10	10.001	10.000	0.0016

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:
7/19 RH = 39.9%

Comments/Info Concerning this Calibration:
7/19 Adjusted span

Report prepared/reviewed by: D. Thompson **Date:** 7/22/19

Technician: G. Cahill

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com

Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01A07335221190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	RCBS	1500	A07335221	N/A	Firearms
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		REPEATABILITY	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:
50	0.02	50x2	0.02	20	0.02
As-Found:		As-Found:		As-Found:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
As-Left:		As-Left:		As-Left:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>

CALIBRATION DATA

Standard	As-Found	As-Left
100	99.98	100.00
50	49.99	50.00
20	19.99	20.00
10	10.00	10.00
5	5.00	5.00
1	1.00	1.00

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	IMG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/18 LIN = Press Cal - 50-100.

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin

Technician: G. Cahill

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com

Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01A07335222190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	RCBS	1500	A07335222	N/A	Firearms
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		REPEATABILITY	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:
50	0.02	50x2	0.02	20	0.02
As-Found:		As-Found:		As-Found:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
As-Left:		As-Left:		As-Left:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>

CALIBRATION DATA

Standard	As-Found	As-Left
100	100.03	99.99
50	50.02	49.99
20	20.00	20.00
10	9.99	10.00
5	5.00	5.00
1	1.00	1.00

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

7/18 LIN = Press Cal 50-100

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin

Technician: G. Cahill

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com

Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM017125020117190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	SP202	7125020117	#2	Lat Prints
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		REPEATABILITY	
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:
100	0.01	100x2	0.01	100	0.01
As-Found:		As-Found:		As-Found:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
As-Left:		As-Left:		As-Left:	
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>

CALIBRATION DATA

Standard	As-Found	As-Left
200	199.97	200.00
150	149.98	150.01
100	99.99	100.00
50	49.99	50.00
20	20.00	20.00
5	5.00	5.00

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin

Technician: G. Cahill

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM01

Quality Control Services

Report of Service and Calibration

2340 S.E. 11TH AVENUE 62436
 PORTLAND, OR 97214
 PHONE 503-236-2712

Sold To Montana.State of/Missoula-Forensic Serv. PT ID: MTFM01 P.O. No: Xok per Stacey Wilson
 Address 2679 Palmer Street Contact: Scott Larson
 City Missoula, MT 59808 Phone: 406-728-4970
 Ship To 2679 Palmer Street Missoula, MT 59808 Email: slarson@mt.gov

No	Item	Make	Model	Serial Number	Location	Contact	Rate	Date Svc'd	2019 Tech	Cust ID
1	Balance	Mettler	MS303TS	11004726127 8924814055	Chemistry	Stacey Wilson	\$130.00	10-15	RB	

Service / Calibration Certificate of Calibration
 Documentation Requirements Calibration with Data
 A2LA Certificate

Received By: _____ Date: _____

Comments: _____



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B924814055191015

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B924814055	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	10/15/19	N/A	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY		LINEARITY		STANDARD DEVIATION			ENVIRONMENTAL CONDITIONS
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
200	0.003	100 x 3	0.002	100	0.001		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
As-Found:		As-Found:		1. 100.000	5. 100.000	9. 100.000	Good Fair Poor
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	2. 100.000	6. 100.000	10. 100.000	
As-Left:		As-Left:		3. 100.000	7. 100.000	Result	Temperature: 19.5°C
Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>	4. 100.000	8. 100.000	0.0000	

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
300	300.001	300.001	0.0011
200	200.000	200.000	0.0011
100	100.000	100.000	0.0011
50	50.001	50.000	0.0011
10	9.999	10.000	0.0011
1	0.999	1.000	0.0011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20kg to 1mg	7133	4/19/19	4/2020	20190811

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

10/19 New Install RH= 29%.

Report prepared/reviewed by: R.B. Date: 10-15-19

Technician: R. Butcher

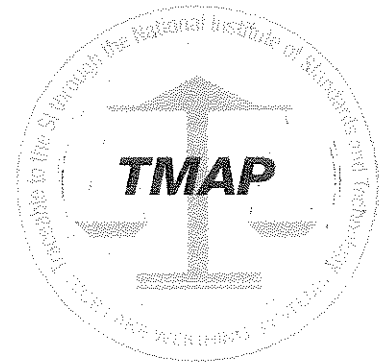
Signature: R. Butcher

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Traceable Certificate Number: 2840953B
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808



Date Received: 14 Dec 2018
Date Calibrated: 19 Dec 2018
Recall Date: 19 Dec 2020
Temperature Range: 22.34 °C
Pressure Range: 722.41 mmHg
Relative Humidity Range: 46 %
Air Density Range: 1.1303 mg/cm³
NIST Certificate Number: 684/286541-15

Although there are two NIST numbers, one or both may apply

Calibrated By: 20
Procedure: Inter-comparison Method (WI05-0095)
Condition of Weights: Acceptable for Calibration
Description of Weights: 1 g Polished Weight, ASTM Class 2, S/N 99-126266

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
1 g	99-126266	0.9999902	-0.0098	Y	0.9999902	-0.0098	Y	0.0029	2	0.054	1605Q	K594Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook

Prepared By: 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com

Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 19 Dec 2018

Dan Demers
 Dan Demers, Metrologist



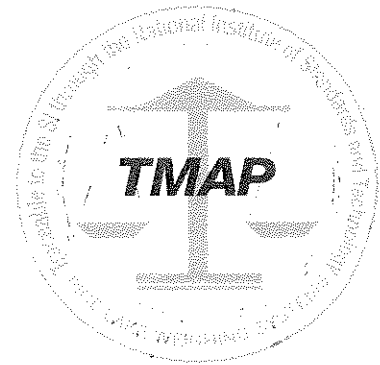
The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



Traceable Certificate Number: 2840953C
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Date Received: 14 Dec 2018
Date Calibrated: 19 Dec 2018 to 20 Dec 2018
Recall Date: 19 Dec 2020
Temperature Range: 22.40 °C to 22.42 °C
Pressure Range: 722.57 mmHg to 724.51 mmHg
Relative Humidity Range: 47 % to 48 %
Air Density Range: 1.1301 mg/cm³ to 1.1332 mg/cm³
NIST Certificate Number: 684/286541-15



Indicates Corr + Unc >= MPE
 ★ Indicates replaced out of tolerance weight

Although there are two NIST numbers, one or both may apply
Calibrated By: 20
Procedure: Inter-comparison Method (WI05-0095)
Condition of Weights: Acceptable for Calibration
Description of Weights: 10 g Polished Weight, ASTM Class 2, S/N 99-126266

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
10 g★	99-126266	9.999939	-0.061	N <input checked="" type="checkbox"/>	10.000015	0.015	Y	0.015	2	0.074	676Q	K594Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 20 Dec 2018

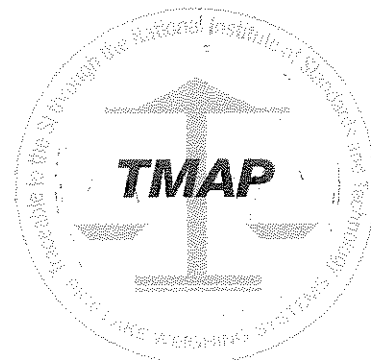
Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



Traceable Certificate Number: 2840953
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808



Purchase Order Number: CC
Client: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Date Received: 14 Dec 2018
Date Calibrated: 19 Dec 2018
Recall Date: 19 Dec 2020
Temperature Range: 21.58 °C
Pressure Range: 721.63 mmHg
Relative Humidity Range: 46 %
Air Density Range: 1.1323 mg/cm³
NIST Certificate Number: 684/286541-15 & 684/291344-18

Although there are two NIST numbers, one or both may apply

Calibrated By: 17
Procedure: Inter-comparison Method (WI05-0095)
Condition of Weights: Acceptable for Calibration
Description of Weights: 200 g Polished Weight, ASTM Class 1, S/N HN5505

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
200 g	HN5505	200.000317	0.317	Y	200.000317	0.317	Y	0.073	2	0.50	699Q	L595Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 19 Dec 2018

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



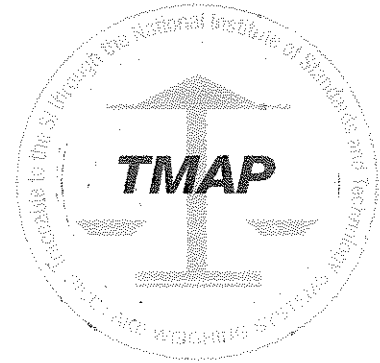
Traceable Certificate Number: 2840953A
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Date Received: 14 Dec 2018
Date Calibrated: 19 Dec 2018
Recall Date: 19 Dec 2020
Temperature Range: 22.32 °C
Pressure Range: 723.00 mmHg
Relative Humidity Range: 49 %
Air Density Range: 1.1310 mg/cm³
NIST Certificate Number: 684/286541-15

Although there are two NIST numbers, one or both may apply

Calibrated By: 20
Procedure: Inter-comparison Method (WI05-0023)
Condition of Weights: Acceptable for Calibration
Description of Weights: 1 kg Satin Finish Weight, ASTM Class 4, S/N 38771



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
1 kg	38771	0.9999997	-0.3	Y	0.9999997	-0.3	Y	2.4	2	20	1810Q	K594Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 19 Dec 2018

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.





QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01ML600HJ11980-1190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Diluter	Hamilton	ML-600	ML600HJ11980-1	2.5mL Syringe	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QCS022	7/18/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 2500	Volume Setting: 1250	Volume Setting: 250
As-Found: 2497.2	As-Found: 1247.6	As-Found: 249.0
As-Left Volume	As-Left Volume	As-Left Volume
#1 2497.6	#1 1247.8	#1 249.2
#2 2497.7	#2 1248.1	#2 249.3
#3 2497.0	#3 1248.0	#3 248.9
#4 2497.2	#4 1248.1	#4 249.3
#5 2497.5	#5 1247.9	#5 249.4
Mean: 2,497.4	Mean: 1,248.0	Mean: 249.2
Std Deviation: 0.3	Std Deviation: 0.1	Std Deviation: 0.2
Inaccuracy: -2.6	Inaccuracy: -2.0	Inaccuracy: -0.8
Uncertainty: 1.50	Uncertainty: 1.50	Uncertainty: 0.12
AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS		

ENVIRONMENT

Temperature: 21.2°C
Humidity: 52.1%
Pressure: 26.59 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

7/19: This Diluter meets or exceeds ISO 8655 tolerances.

Comments/Info Concerning this Calibration:

7/19 As Found=Pass. As Left=Pass, Left Side Cal w/2.5mL Syringe.

Report Prepared/Reviewed by: IG Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01ML600HJ11980-2190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Diluter	Hamilton	ML-600	ML600HJ11980-2	250uL Syringe	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QCS022	7/18/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 250	Volume Setting: 125	Volume Setting: 25
As-Found: 251.3	As-Found: 126.0	As-Found: 24.5
As-Left Volume	As-Left Volume	As-Left Volume
#1 251.3	#1 126.0	#1 24.5
#2 251.0	#2 126.1	#2 24.9
#3 251.1	#3 126.2	#3 25.0
#4 251.2	#4 126.2	#4 24.9
#5 250.9	#5 125.9	#5 24.7
Mean: 251.1	Mean: 126.1	Mean: 24.8
Std Deviation: 0.2	Std Deviation: 0.1	Std Deviation: 0.2
Inaccuracy: 1.1	Inaccuracy: 1.1	Inaccuracy: -0.2
Uncertainty: 0.12	Uncertainty: 0.12	Uncertainty: 0.09
AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS		

ENVIRONMENT

Temperature: 21.4°C	
Humidity: 46.2%	
Pressure: 26.58 in Hg	
channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

This Diluter meets/exceeds ISO 8655 tolerances.

Comments/Info Concerning this Calibration:

7/19 As Found=Pass. As Left=Pass, Right Side Cal w/250uL Syringe

Report Prepared/Reviewed by: TC Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01E1464900T190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	SL-1000 XLS	E1464900T	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 1000.4
As-Left Volume

#1	999.9
#2	1000.9
#3	1001.6
#4	1001.5
#5	1001.0

Volume Setting: 200
As-Found: 204.2
As-Left Volume

#1	204.8
#2	204.7
#3	204.2
#4	204.7
#5	204.8

ENVIRONMENT

Temperature: 21.4°C
Humidity: 44.9%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Mean: 1,001.0
Std Deviation: 0.7
Inaccuracy: 1.0
Uncertainty: 0.61

Mean: 204.6
Std Deviation: 0.3
Inaccuracy: 4.6
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: AB

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B904164542190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-200-XLS	B904164542	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	N/A	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 200
As-Found: 200.02

As-Left	Volume
#1	199.90
#2	199.95
#3	199.91
#4	200.05
#5	199.97

Volume Setting: 50
As-Found: 50.01

As-Left	Volume
#1	50.00
#2	49.92
#3	49.97
#4	50.01
#5	49.98

Temperature: 21.4°C
Humidity: 45.7%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Mean: 199.96
Std Deviation: 0.06
Inaccuracy: -0.04
Uncertainty: 0.120

Mean: 49.98
Std Deviation: 0.04
Inaccuracy: -0.02
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG Date: 7/17/2019

Technician: T. Greene
Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B904138612190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-20-XLS	B904138612	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/17/19	N/A	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 19.95
As-Left Volume

#1	20.05
#2	20.04
#3	19.95
#4	19.97
#5	19.93

Mean: 19.99
Std Deviation: 0.05
Inaccuracy: -0.01
Uncertainty: 0.092

Volume Setting: 2
As-Found: 1.96
As-Left Volume

#1	1.98
#2	2.03
#3	1.97
#4	2.00
#5	1.97

Mean: 1.99
Std Deviation: 0.03
Inaccuracy: -0.01
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.4°C
Humidity: 44.8%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: TC

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01042764091190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	100-1000uL	042764091	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 999.9
As-Left Volume

#1	999.5
#2	999.9
#3	999.7
#4	999.5
#5	1000.0

Mean: 999.7
Std Deviation: 0.2
Inaccuracy: -0.3
Uncertainty: 0.61

Volume Setting: 200
As-Found: 201.6
As-Left Volume

#1	201.5
#2	201.1
#3	200.9
#4	201.3
#5	200.7

Mean: 201.1
Std Deviation: 0.3
Inaccuracy: 1.1
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.4°C
Humidity: 45.9%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromt	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B727355818190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-10	B727355818	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 10
As-Found: 9.94
As-Left Volume

#1	10.05
#2	10.00
#3	10.02
#4	10.06
#5	10.04

Mean: 10.03
Std Deviation: 0.02
Inaccuracy: 0.03
Uncertainty: 0.026

Volume Setting: 2
As-Found: 1.95
As-Left Volume

#1	2.02
#2	2.04
#3	1.99
#4	2.00
#5	1.97

Mean: 2.00
Std Deviation: 0.03
Inaccuracy: 0.00
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.5°C
Humidity: 44.6%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG Date: 7/17/2019

Technician: T. Greene
Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01DJ15865190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Fiimmpipette	10-F	DJ15865	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul		QCS022	7/17/19	7/9/18	7/2020

ENVIRONMENT

Temperature: 21.6°C
Humidity: 45.5%
Pressure: 26.67 in Hg

CALIBRATION DATA

Volume Setting: 10
As-Found: 10.07
As-Left Volume
#1 10.03
#2 10.05
#3 10.04
#4 10.04
#5 10.01

Volume Setting:
As-Found:
As-Left Volume
#1
#2
#3
#4
#5

Mean: 10.03
Std Deviation: 0.02
Inaccuracy: 0.03
Uncertainty: 0.026

Mean:
Std Deviation:
Inaccuracy:
Uncertainty:

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: IG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B648357664190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-20	B648357664	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 19.85
As-Left Volume

#1	19.94
#2	19.97
#3	19.93
#4	19.95
#5	19.97

Mean: 19.95
Std Deviation: 0.02
Inaccuracy: -0.05
Uncertainty: 0.092

Volume Setting: 2
As-Found: 1.91
As-Left Volume

#1	2.02
#2	1.98
#3	2.00
#4	1.97
#5	2.01

Mean: 2.00
Std Deviation: 0.02
Inaccuracy: 0.00
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.7°C
Humidity: 45.8%
Pressure: 26.67 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal.

Report Prepared/Reviewed by: CB

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01DH64371190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Fiinnpipette	50ul - Fixed	DH64371	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul		QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 50
As-Found: 49.79
As-Left Volume

#1	49.94
#2	50.03
#3	50.05
#4	49.99
#5	49.95

Mean: 49.99
Std Deviation: 0.05
Inaccuracy: -0.01
Uncertainty: 0.092

Volume Setting:
As-Found:
As-Left Volume

#1	
#2	
#3	
#4	
#5	

Mean:
Std Deviation:
Inaccuracy:
Uncertainty:

ENVIRONMENT

Temperature: 21.8°C
Humidity: 45.5%
Pressure: 26.66 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromt	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal.

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01E1464498T190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	LTS1000	E1464498T	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 996.6
As-Left Volume

#1	1000.1
#2	1000.5
#3	999.9
#4	999.7
#5	999.5

Mean: 999.9
Std Deviation: 0.4
Inaccuracy: -0.1
Uncertainty: 0.61

Volume Setting: 200
As-Found: 197.6
As-Left Volume

#1	201.6
#2	202.0
#3	201.7
#4	202.2
#5	201.7

Mean: 201.8
Std Deviation: 0.3
Inaccuracy: 1.8
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.5°C
Humidity: 47.8%
Pressure: 26.65 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: AG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01942762853190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	100-1000uL	942762853	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 995.6
As-Left Volume

#1	997.7
#2	997.9
#3	998.2
#4	997.6
#5	996.9

Mean: 997.7
Std Deviation: 0.5
Inaccuracy: -2.3
Uncertainty: 0.61

Volume Setting: 200
As-Found: 202.7
As-Left Volume

#1	201.4
#2	201.0
#3	201.5
#4	200.9
#5	201.3

Mean: 201.2
Std Deviation: 0.3
Inaccuracy: 1.2
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.5°C
Humidity: 51.4%
Pressure: 26.65 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: AG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01942732444190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	20	942732444	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 20
As-Found: 20.03
As-Left Volume

#1	19.95
#2	20.07
#3	19.99
#4	19.97
#5	20.05

Volume Setting: 2
As-Found: 1.95
As-Left Volume

#1	1.97
#2	1.96
#3	1.99
#4	1.94
#5	1.96

Temperature: 21.2°C
Humidity: 50.7%
Pressure: 26.63 in Hg

Mean: 20.01
Std Deviation: 0.05
Inaccuracy: 0.01
Uncertainty: 0.092

Mean: 1.96
Std Deviation: 0.02
Inaccuracy: -0.04
Uncertainty: 0.044

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: CTG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01380849190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Lambda	10 ul	380849	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 10
As-Found: 9.95
As-Left Volume

#1	10.05
#2	10.03
#3	9.97
#4	10.07
#5	10.01

Mean: 10.03
Std Deviation: 0.04
Inaccuracy: 0.03
Uncertainty: 0.026

Volume Setting: 2
As-Found: 2.02
As-Left Volume

#1	2.05
#2	2.02
#3	1.97
#4	2.06
#5	1.99

Mean: 2.02
Std Deviation: 0.04
Inaccuracy: 0.02
Uncertainty: 0.044

ENVIRONMENT

Temperature: 21.2°C
Humidity: 50.9%
Pressure: 26.63 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B640103266190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-1000	B640103266	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 1000
As-Found: 993.3
As-Left Volume

#1	995.4
#2	995.6
#3	994.9
#4	995.7
#5	995.0

Volume Setting: 200
As-Found: 195.4
As-Left Volume

#1	199.6
#2	199.2
#3	200.3
#4	200.5
#5	199.7

Temperature: 21.5°C
Humidity: 49.8%
Pressure: 26.65 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Mean: 995.3
Std Deviation: 0.4
Inaccuracy: -4.7
Uncertainty: 0.61

Mean: 199.9
Std Deviation: 0.5
Inaccuracy: -0.1
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: TC

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B643194999190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-200	B643194999	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 198.41
As-Left Volume

#1	199.64
#2	199.73
#3	199.69
#4	199.75
#5	199.77

Mean: 199.72
Std Deviation: 0.05
Inaccuracy: -0.28
Uncertainty: 0.120

Volume Setting: 50
As-Found: 48.48
As-Left Volume

#1	49.56
#2	49.59
#3	49.51
#4	49.60
#5	49.53

Mean: 49.56
Std Deviation: 0.04
Inaccuracy: -0.44
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.8°C
Humidity: 46.5%
Pressure: 26.65 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: RG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B627727878190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-1000	B627727878	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 1001.2
As-Left Volume

#1	1000.4
#2	1000.6
#3	1000.7
#4	1000.8
#5	1001.5

Mean: 1,000.8
Std Deviation: 0.4
Inaccuracy: 0.8
Uncertainty: 0.61

Volume Setting: 200
As-Found: 201.0
As-Left Volume

#1	200.6
#2	199.6
#3	200.6
#4	201.0
#5	199.8

Mean: 200.3
Std Deviation: 0.6
Inaccuracy: 0.3
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.2°C
Humidity: 51.9%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: AG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01416856A190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Eppendorf	Res+ -1000	416856A	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QCS022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 992.8
As-Left Volume

#1	997.2
#2	997.7
#3	996.6
#4	998.0
#5	997.5

Mean: 997.4
Std Deviation: 0.5
Inaccuracy: -2.6
Uncertainty: 0.61

Volume Setting: 200
As-Found: 201.4
As-Left Volume

#1	200.4
#2	199.8
#3	200.5
#4	199.9
#5	200.2

Mean: 200.2
Std Deviation: 0.3
Inaccuracy: 0.2
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.2°C
Humidity: 50.8%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B635956311190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-20	B635956311	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 20.05
As-Left Volume

#1	19.95
#2	20.02
#3	19.93
#4	20.05
#5	20.02

Mean: 19.99
Std Deviation: 0.05
Inaccuracy: -0.01
Uncertainty: 0.092

Volume Setting: 2
As-Found: 2.03
As-Left Volume

#1	2.02
#2	1.96
#3	1.95
#4	2.05
#5	1.97

Mean: 1.99
Std Deviation: 0.04
Inaccuracy: -0.01
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.2°C
Humidity: 47.3%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: AG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
 The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B635956362190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-200	B635956362	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 198.64
As-Left Volume

#1	199.14
#2	198.96
#3	199.09
#4	198.94
#5	198.99

Mean: 199.02
Std Deviation: 0.09
Inaccuracy: -0.98
Uncertainty: 0.120

Volume Setting: 20
As-Found: 20.10
As-Left Volume

#1	20.06
#2	19.95
#3	20.02
#4	19.99
#5	20.04

Mean: 20.01
Std Deviation: 0.04
Inaccuracy: 0.01
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.2°C
Humidity: 48.6%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: TC

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Missoula - Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B635956518190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-1000	B635956518	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 998.8
As-Left Volume

#1	999.2
#2	999.0
#3	999.5
#4	998.9
#5	999.4

Mean: 999.2
Std Deviation: 0.3
Inaccuracy: -0.8
Uncertainty: 0.61

Volume Setting: 200
As-Found: 199.5
As-Left Volume

#1	199.6
#2	200.2
#3	199.8
#4	199.7
#5	200.0

Mean: 199.9
Std Deviation: 0.2
Inaccuracy: -0.1
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.4°C
Humidity: 41.1%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B629789188190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-200	B629789188	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 198.41
As-Left Volume

#1	199.19
#2	199.09
#3	199.01
#4	198.99
#5	198.96

Mean: 199.05
Std Deviation: 0.09
Inaccuracy: -0.95
Uncertainty: 0.120

Volume Setting: 20
As-Found: 19.44
As-Left Volume

#1	20.23
#2	20.20
#3	20.25
#4	20.19
#5	20.17

Mean: 20.21
Std Deviation: 0.03
Inaccuracy: 0.21
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.5°C
Humidity: 43.7%
Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B629789104190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-20	B629789104	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 20.17
As-Left Volume

#1	20.11
#2	20.15
#3	20.10
#4	20.09
#5	20.12

Mean: 20.11
Std Deviation: 0.02
Inaccuracy: 0.11
Uncertainty: 0.092

Volume Setting: 2
As-Found: 2.03
As-Left Volume

#1	2.05
#2	1.99
#3	2.01
#4	2.03
#5	1.97

Mean: 2.01
Std Deviation: 0.03
Inaccuracy: 0.01
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.6°C
Humidity: 44.3%
Pressure: 26.58 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: AG

Date: 7/17/2019

Technician: T. Green

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01379100190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Lambda	10 ul	379100		Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 10
As-Found: 9.98
As-Left Volume

#1	10.03
#2	10.05
#3	10.01
#4	9.98
#5	9.95

Mean: 10.00
Std Deviation: 0.04
Inaccuracy: 0.00
Uncertainty: 0.026

Volume Setting: 2
As-Found: 1.96
As-Left Volume

#1	2.02
#2	1.95
#3	1.99
#4	2.03
#5	1.99

Mean: 2.00
Std Deviation: 0.03
Inaccuracy: 0.00
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.4°C
Humidity: 44.2%
Pressure: 26.58 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: IG

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01542762993190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 1000	542762993	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QC022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 1000

As-Found: 992.1

As-Left Volume

#1 999.1

#2 999.7

#3 999.3

#4 999.5

#5 999.4

Mean: 999.4

Std Deviation: 0.2

Inaccuracy: -0.6

Uncertainty: 0.61

Volume Setting: 200

As-Found: 195.1

As-Left Volume

#1 201.7

#2 201.5

#3 201.0

#4 201.3

#5 201.6

Mean: 201.4

Std Deviation: 0.3

Inaccuracy: 1.4

Uncertainty: 0.12

Temperature: 21.1°C

Humidity: 47.1%

Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

This pipette meets or exceeds ISO 8655 tolerances.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal.

Report Prepared/Reviewed by: IG

Date: 7/17/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01381117190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Lambda	1000	381117	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QCS022	7/17/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 990.1
As-Left Volume

#1	990.5
#2	989.9
#3	988.7
#4	990.0
#5	989.5

Mean: 989.7
Std Deviation: 0.7
Inaccuracy: -10.3
Uncertainty: 0.61

Volume Setting: 200
As-Found: 193.5
As-Left Volume

#1	192.5
#2	193.0
#3	193.5
#4	192.7
#5	193.3

Mean: 193.0
Std Deviation: 0.4
Inaccuracy: -7.0
Uncertainty: 0.12

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.1°C
Humidity: 46.2%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrometer	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:
Unit does not meet or exceeds ISO 8655 tolerances at 1000uL.

Comments/Info Concerning this Calibration:
7/2019 End Calibration: As Found = Out of tolerance @ 1000uL.

Report Prepared/Reviewed by: CG

Date: 7/17/2019

Technician: T. Green
Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01942763347190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	200 ul	942763347	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 202.75
As-Left Volume

#1	199.09
#2	198.84
#3	198.36
#4	199.36
#5	198.24

Mean: 198.78
Std Deviation: 0.48
Inaccuracy: -1.22
Uncertainty: 0.120

Volume Setting: 20
As-Found: 22.02
As-Left Volume

#1	21.94
#2	21.76
#3	22.02
#4	22.12
#5	22.25

Mean: 22.02
Std Deviation: 0.19
Inaccuracy: 2.02
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.4°C
Humidity: 50.5%
Pressure: 26.64 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette does not meet ISO 8655 tolerances, As Found.

Comments/Info Concerning this Calibration:

7/19 End of Calibration: As Found Only = Out of tolerance.

Report Prepared/Reviewed by: ATG

Date: 7/17/2019

Technician: T. Green

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B727355853190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-10	B727355853	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 10
As-Found: 9.94
As-Left Volume

#1	10.06
#2	10.07
#3	10.02
#4	9.97
#5	9.95

Mean: 10.01
Std Deviation: 0.05
Inaccuracy: 0.01
Uncertainty: 0.026

Volume Setting: 2
As-Found: 1.95
As-Left Volume

#1	1.96
#2	2.02
#3	1.98
#4	1.97
#5	2.00

Mean: 1.99
Std Deviation: 0.02
Inaccuracy: -0.01
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.1°C
Humidity: 49.2%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: TC

Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01542751972190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 200	542751972	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QC022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 199.36
As-Left Volume

#1	199.56
#2	199.50
#3	199.47
#4	199.59
#5	199.54

Mean: 199.53
Std Deviation: 0.05
Inaccuracy: -0.47
Uncertainty: 0.120

Volume Setting: 50
As-Found: 49.88
As-Left Volume

#1	50.15
#2	50.22
#3	50.25
#4	50.18
#5	50.17

Mean: 50.19
Std Deviation: 0.04
Inaccuracy: 0.19
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.1°C
Humidity: 52.6%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromt	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: TCG

Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
 The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01542731816190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 2-20uL	542731816	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 20.10
As-Left Volume

#1	20.05
#2	19.98
#3	20.11
#4	20.09
#5	20.03

Mean: 20.05
Std Deviation: 0.05
Inaccuracy: 0.05
Uncertainty: 0.092

Volume Setting: 2
As-Found: 1.95
As-Left Volume

#1	1.96
#2	2.02
#3	1.98
#4	2.01
#5	1.97

Mean: 1.99
Std Deviation: 0.03
Inaccuracy: -0.01
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 20.9°C
Humidity: 58.2%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom:	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CB

Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01442741557190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 10-100	442741557	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 100
As-Found: 100.25
As-Left Volume

#1	100.34
#2	100.28
#3	100.22
#4	100.39
#5	100.30

Mean: 100.31
Std Deviation: 0.06
Inaccuracy: 0.31
Uncertainty: 0.087

Volume Setting: 20
As-Found: 19.96
As-Left Volume

#1	20.02
#2	20.08
#3	20.10
#4	20.05
#5	20.02

Mean: 20.05
Std Deviation: 0.04
Inaccuracy: 0.05
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 20.9°C
Humidity: 52.9%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG

Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B815702316190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	L-1000-XLS	B815702316	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/18/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 994.9
As-Left Volume

#1	996.2
#2	995.7
#3	995.9
#4	995.5
#5	996.7

Mean: 996.0
Std Deviation: 0.5
Inaccuracy: -4.0
Uncertainty: 0.61

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Volume Setting: 200
As-Found: 198.8
As-Left Volume

#1	199.5
#2	200.2
#3	200.5
#4	199.1
#5	199.3

Mean: 199.7
Std Deviation: 0.6
Inaccuracy: -0.3
Uncertainty: 0.12

ENVIRONMENT

Temperature: 21°C
Humidity: 49.7%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromer	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: RG

Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B815702576190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-2-XLS	B815702576	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.002	QCS022	7/18/19	7/9/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 2
As-Found: 2.02
As-Left Volume

#1	2.00
#2	1.98
#3	2.02
#4	1.97
#5	2.03

Volume Setting: 0.5
As-Found: 0.46
As-Left Volume

#1	0.49
#2	0.47
#3	0.50
#4	0.48
#5	0.52

Temperature: 21.3°C
Humidity: 53.9%
Pressure: 26.56 in Hg

Mean: 2.00
Std Deviation: 0.03
Inaccuracy: 0.00
Uncertainty: 0.044

Mean: 0.49
Std Deviation: 0.02
Inaccuracy: -0.01
Uncertainty: 0.038

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromer	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG

Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01B815702567190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-20-XLS	B815702567	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.02	QCS022	7/18/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 19.94
As-Left Volume

#1	20.05
#2	20.06
#3	20.00
#4	19.95
#5	19.97

Mean: 20.01
Std Deviation: 0.05
Inaccuracy: 0.01
Uncertainty: 0.092

Volume Setting: 2
As-Found: 1.98
As-Left Volume

#1	2.02
#2	1.97
#3	1.99
#4	2.00
#5	2.02

Mean: 2.00
Std Deviation: 0.02
Inaccuracy: 0.00
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.3°C
Humidity: 56.3%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: RG

Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0110182830190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Biohit	1000	10182830		Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 1000
As-Found: 1005.6
As-Left Volume

#1	1001.8
#2	1002.2
#3	1002.3
#4	1001.5
#5	1002.6

Volume Setting: 200
As-Found: 203.9
As-Left Volume

#1	202.8
#2	203.3
#3	203.0
#4	202.7
#5	203.2

Temperature: 20.9°C
Humidity: 56.1%
Pressure: 26.59 in Hg

Mean: 1,002.1
Std Deviation: 0.4
Inaccuracy: 2.1
Uncertainty: 0.61

Mean: 203.0
Std Deviation: 0.3
Inaccuracy: 3.0
Uncertainty: 0.12

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: CG

Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01542763012190718

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 1000	542763012	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QC022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

ENVIRONMENT

Volume Setting:	As-Found:	As-Left	Volume
1000	1002.0	#1	1001.7
		#2	1000.9
		#3	1001.1
		#4	1002.0
		#5	1001.4
Mean:	1,001.4		
Std Deviation:	0.4		
Inaccuracy:	1.4		
Uncertainty:	0.61		

Volume Setting:	As-Found:	As-Left	Volume
200	202.0	#1	201.1
		#2	200.9
		#3	201.4
		#4	201.7
		#5	200.6
Mean:	201.1		
Std Deviation:	0.4		
Inaccuracy:	1.1		
Uncertainty:	0.12		

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Temperature: 20.9°C
 Humidity: 62.3%
 Pressure: 26.58 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: RG

Date: 7/18/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
 The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01542752080190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 200	542752080	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QC022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 200
As-Found: 198.50
As-Left Volume

#1	199.94
#2	199.85
#3	200.02
#4	200.06
#5	199.91

Mean: 199.96
Std Deviation: 0.08
Inaccuracy: -0.04
Uncertainty: 0.120

Volume Setting: 50
As-Found: 50.11
As-Left Volume

#1	50.04
#2	50.01
#3	49.97
#4	50.03
#5	50.00

Mean: 50.01
Std Deviation: 0.03
Inaccuracy: 0.01
Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.1°C
Humidity: 56.9%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: AG

Date: 7/14/2019

Technician: T. Greene

Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM015427317803190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 2-20uL	5427317803	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 20
As-Found: 20.16
As-Left Volume

#1	19.98
#2	20.05
#3	20.04
#4	20.08
#5	20.02

Mean: 20.03
Std Deviation: 0.04
Inaccuracy: 0.03
Uncertainty: 0.092

Volume Setting: 2
As-Found: 2.15
As-Left Volume

#1	2.01
#2	2.05
#3	2.02
#4	2.00
#5	2.03

Mean: 2.02
Std Deviation: 0.02
Inaccuracy: 0.02
Uncertainty: 0.044

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.2°C
Humidity: 55.7%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromi	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal.

Report Prepared/Reviewed by: AG Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
 2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
 (503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
 Serv.
 2679 Palmer Street
 Missoula, MT 59808

Report Number: MTFM01B815702398000718

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-200-XLS	B815702398	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/18/00	7/9/18	7/1901

CALIBRATION DATA

ENVIRONMENT

Volume Setting: 200	Volume Setting: 100	Volume Setting: 20
As-Found: 169.23	As-Found: N/A	As-Found: 18.36
As-Left Volume	As-Left Volume	As-Left Volume
#1 200.04	#1 100.07	#1 20.52
#2 200.08	#2 99.98	#2 20.60
#3 200.17	#3 99.92	#3 20.63
#4 200.22	#4 100.02	#4 20.63
#5 200.10	#5 100.03	#5 20.50
#6 200.09	#6 99.97	#6 20.50
#7 200.19	#7 100.06	#7 20.59
#8 200.07	#8 100.10	#8 20.54
#9 200.18	#9 99.96	#9 20.56
#10 200.06	#10 99.94	#10 20.55
Mean: 200.12	Mean: 100.01	Mean: 20.56
Std Deviation: 0.06	Std Deviation: 0.06	Std Deviation: 0.05
Inaccuracy: 0.12	Inaccuracy: 0.01	Inaccuracy: 0.56
Uncertainty: 0.120	Uncertainty: 0.087	Uncertainty: 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Temperature: 21.1°C	
Humidity: 48.3%	
Pressure: 26.57 in Hg	
channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other (Lip Seal & Lubricant)

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision,

Comments/info Concerning this Calibration:

7/19 As Found = Out of tolerance. As Left = Pass, clean, svcs, adj cal

Report Prepared/Reviewed by: CIG

Date: 7/18/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM01129221190717

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Pipettor	Ovation	100-1000	129221	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/17/19	7/9/18	7/2020

CALIBRATION DATA

Volume Setting: 1000
As-Found: 1004.4
As-Left Volume

#1	1003.6
#2	1004.2
#3	1004.1
#4	1003.7
#5	1004.0

Mean: 1,003.9
Std Deviation: 0.3
Inaccuracy: 3.9
Uncertainty: 0.61

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Volume Setting: 200
As-Found: 198.8
As-Left Volume

#1	199.2
#2	199.0
#3	198.9
#4	199.8
#5	199.7

Mean: 199.3
Std Deviation: 0.4
Inaccuracy: -0.7
Uncertainty: 0.12

ENVIRONMENT

Temperature: 21.4°C
Humidity: 45.3%
Pressure: 26.66 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: ACB

Date: 7/17/2019

Technician: T. Greene

Signature: [Signature]

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of/Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0101K08757190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Dispenser	Brand	Dis. III 5ml	01K08757	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	100	QCS022	7/18/19	7/10/18	7/2020

CALIBRATION DATA

Volume Setting: 5000
As-Found: 5020.3
As-Left Volume

#1	5015.6
#2	5013.9
#3	5017.6
#4	5014.9
#5	5016.1

Volume Setting: 2000
As-Found: 2015.0
As-Left Volume

#1	2010.3
#2	2012.4
#3	2011.9
#4	2013.7
#5	2014.3

Mean: 5,015.6
Std Deviation: 1.4
Inaccuracy: 15.6
Uncertainty: 2.40

Mean: 2,012.5
Std Deviation: 1.6
Inaccuracy: 12.5
Uncertainty: 1.50

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

ENVIRONMENT

Temperature: 21.5°C
Humidity: 44.8%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:
 Unit meets or exceeds ISO 8655 tolerances.

Comments/Info Concerning this Calibration:
 7/19: As Found = Pass. As Left = Pass, cleaned.

Report Prepared/Reviewed by: IG **Date:** 7/18/19

Technician: T. Greene
Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.
 The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



QUALITY CONTROL SERVICES

LABORATORY EQUIPMENT • SALES • SERVICE • CALIBRATION • REPAIRS
2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293
(503) 236-2712 • FAX (503) 235-2535 • www.qc-services.com



Montana, State of / Missoula-Forensic
Serv.
2679 Palmer Street
Missoula, MT 59808

Report Number: MTFM0109A7220190718

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Dispenser	Brand	Dis.10ml	09A7220	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.05	QC022	7/18/19	8/10/18	7/2020

CALIBRATION DATA

Volume Setting: 5000
As-Found: 4998.3
As-Left Volume

#1	4994.7
#2	4995.6
#3	4996.9
#4	4997.4
#5	4997.7

Mean: 4,996.5
Std Deviation: 1.3
Inaccuracy: -3.5
Uncertainty: 2.40

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Volume Setting: 2000
As-Found: 1998.9
As-Left Volume

#1	2000.5
#2	1999.4
#3	1998.6
#4	2001.1
#5	1999.0

Mean: 1,999.7
Std Deviation: 1.0
Inaccuracy: -0.3
Uncertainty: 1.50

ENVIRONMENT

Temperature: 21.5°C
Humidity: 47.3%
Pressure: 26.57 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
7	n/a
8	n/a
9	n/a
10	n/a
11	n/a
12	n/a

Parts Replaced: Seal O-Ring Piston Button Shaft T-Ring Spring Coupling
 Other

CALIBRATION STANDARDS

ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygromet	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Unit meets or exceeds ISO 8655 tolerances. Customer checkpoints.

Comments/Info Concerning this Calibration:

7/19: As Found = Pass. As Left = Pass, cleaned. Customer test point:

Report Prepared/Reviewed by: CG Date: 7/18/2019

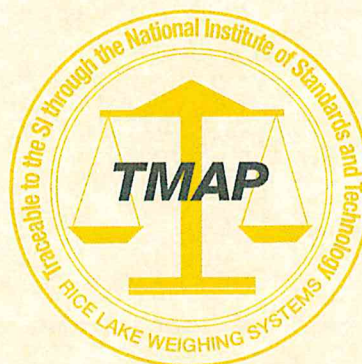
Technician: T. Greene
Signature: T. Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Traceable Certificate Number: 2912505 Amended
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: MSCL
Client: MONTANA STATE CRIME LAB
 2679 PALMER ST
 MISSOULA, MT 59808



Date Received: 28 May 2019
Date Calibrated: 31 May 2019
Recall Date: 31 May 2021
Temperature Range: 20.92 °C
Pressure Range: 725.15 mmHg
Relative Humidity Range: 51 %
Air Density Range: 1.1401 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 03
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: Acceptable for Calibration
Description of Weights: 10 mg Leaf Weight, ASTM Class 1, S/N 86G9 (Changed Recall to 2 year, 14 Feb 2020)

Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
10 mg	86G9	10.0044	0.0044	Y	10.0044	0.0044	Y	0.0012	2	0.010	503Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:
Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 14 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.



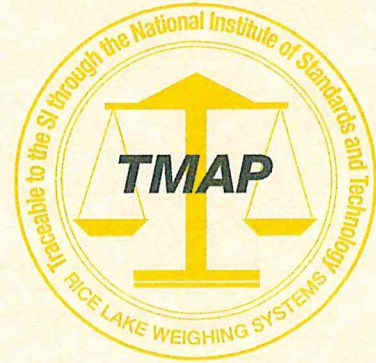
Traceable Certificate Number: 2888460 Amended
Contractor: MONTANA DEPARTMENT OF JUSTICE
 FORENSIC SCIENCE DIVISION
 2679 PALMER ST
 MISSOULA, MT 59808

Purchase Order Number: CC
Client: MONTANA STATE CRIME LAB
 2679 PALMER ST
 MISSOULA, MT 59808

Date Received: 08 Apr 2019
Date Calibrated: 01 May 2019 to 02 May 2019
Recall Date: 01 May 2021
Temperature Range: 21.07 °C to 21.19 °C
Pressure Range: 731.81 mmHg to 734.43 mmHg
Relative Humidity Range: 46 % to 52 %
Air Density Range: 1.1503 mg/cm³ to 1.1544 mg/cm³
NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 05, 17
Procedure: Inter-comparison Method (WI05-0095 Rev. C)
Condition of Weights: Acceptable for Calibration
Description of Weights: 100 mg to 1 kg Polished Weights, ASTM Class 1 (Updated recall to 2 year interval, 18 Feb 2020)



Nominal Value	ID or S/N	As Found			As Left			Unc. (mg)	k	MPE* (mg)	Balance Used	Standard Set Used	Assumed Density (g/cm ³)
		Conv. Mass	Conv. Mass Corr (mg)	MPE Pass	Conv. Mass	Conv. Mass Corr (mg)	MPE Pass						
100 mg	83J7	100.0025	0.0025	Y	100.0025	0.0025	Y	0.0018	2	0.010	650Q	L595Q	7.95
1 g	83J8	1.0000207	0.0207	Y	1.0000207	0.0207	Y	0.0022	2	0.034	650Q	L595Q	7.95
10 g	83J9	9.999999	-0.001	Y	9.999999	-0.001	Y	0.010	2	0.050	1470Q	L595Q	7.95
100 g	83JA	100.000135	0.135	Y	100.000135	0.135	Y	0.026	2	0.25	1470Q	L595Q	7.95
1 kg	83JB	1.00000043	0.43	Y	1.00000043	0.43	Y	0.11	2	2.5	699Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By: Rice Lake Weighing Systems
 230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19
 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com
 Definitions: <http://certs.ricelake.com/certs/DefinitionsV2.docx>

Dated 18 Feb 2020

Dan Demers
 Dan Demers, Metrologist



The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems' Metrology Laboratory.

