Toxicolgy GROUP PIPETTE CALIBRATION CHECK SPREADSHEET

Analyst:		Balance:	
Temp.°C		Thermometer:	
		Date:	
Water Density (in g/mL)			

Corrective Action Required for Failing Pipets

See Corrective Action Tab for Resolution

INSTRUCTIONS:
Enter the water temperature to the **nearest 0.5 deg.** and the weight of the 5 replicates of water dispensed by the pipette. The density is automatically entered upon entering the temperature.

Adjustable Pipettes; If one of the bracketed weights exceeds tolerance, all weight for that pipette will need corrective action.

Pipet ID #	Pipet Location	Vol. in uL	Measurement 1		Measurement 2		Measurement 3		Measurement 4		Measurement 5		Mean Vol. (uL)	RSD of Vol. (uL)	% Difference	% Difference PASS/FAIL	% RSD PASS/FAIL
			Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)					
Fixed volume Pipette [100uL - 2500uL]																	
Adjustable volume Pipette [10uL - 100uL]																	
Adjustable volume Pipette [100uL - 1000uL]																	
Adjustable volume Pipette [1000uL - 10000uL]																	
Adjustable volume Bottle Top Pipetter [1000uL - 100,000uL] - Checked Quarterly																	

% Difference for Fixed volume Pipette

100uL - 2500uL	0.60%

% RSD for Fixed volume Pipette

100uL - 2500uL	5.00%

% Difference for Adjustable volume Pipette

10uL - 100uL	
10	3.00%
50	1.00%
100	0.80%

% RSD for Adjustable volume Pipette

10uL - 100uL	
10	20.00%
50	10.00%
100	5.00%

% Difference for Adjustable volume Pipette

100uL - 1000uL	
100	3.00%
500	1.00%
1000	0.60%

% RSD for Adjustable volume Pipette

100uL - 1000uL	
100	20.00%
500	10.00%
1000	5.00%

% Difference for Adjustable volume Pipette

1000uL - 10000uL	
1000	3.00%
2000	3.00%
5000	1.00%
10000	0.60%

% RSD for Adjustable volume Pipette

1000uL - 10000uL	
1000	20.00%
2000	20.00%
5000	10.00%
10000	5.00%

% Difference for Bottle Top Pipetter

1mL -100mL	10.00%

% RSD for Bottle Top Pipetter

1mL -100mL	5.00%

METALS GROUP PIPETTE CALIBRATION CHECK SPREADSHEET

Analyst:	0	Balance:	0
Temp.°C	0	Thermometer:	0
		Date:	1/0/1900
Water Density (in g/mL)			

Pipet ID #	Pipet Location	Vol. in uL	Measurement 1		Measurement 2		Measurement 3		Measurement 4		Measurement 5		Mean Vol. (uL)	RSD of Vol. (uL)	% Difference
			Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)	Weight (g)	Vol. (uL)			
Fixed volume Pipette [100uL - 2500uL]															
Adjustable volume Pipette [10uL - 100uL]															
Adjustable volume Pipette [100uL - 1000uL]															
Adjustable volume Pipette [1000uL - 10000uL]															
Adjustable volume Bottle Top Pipetter [1000uL - 100,000uL] - Checked Quarterly															

Metals Group
Pipette Calibration Check

% DIFFERENCE Calc	
3.00%	
0.00%	PASS
3.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

1.00%	
0.00%	PASS
1.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

0.80%	
0.00%	PASS
0.81%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

0.60%	
0.00%	PASS
0.61%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

10.00%	
0.00%	PASS
10.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

Temp	Density
15.0	0.999099
15.5	0.999023
16.0	0.998943
16.5	0.998860
17.0	0.998774
17.5	0.998686
18.0	0.998595
18.5	0.998501
19.0	0.998405
19.5	0.998305
20.0	0.998203
20.5	0.998099
21.0	0.997992
21.5	0.997882
22.0	0.997770
22.5	0.997655
23.0	0.997538
23.5	0.997418
24.0	0.997296
24.5	0.997171
25.0	0.997044
25.5	0.996914
26.0	0.996783
26.5	0.996649
27.0	0.996512
27.5	0.996373
28.0	0.996232
28.5	0.996089
29.0	0.995944
29.5	0.995796
30.0	0.995646

% RSD Calc.	
20.00%	**Low**
0.00%	PASS
20.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

10.00%	**Mid**
0.00%	PASS
10.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

5.00%	**High**
0.00%	PASS
5.01%	FAIL
100.00%	FAIL
100.00%	N/A
100.00%	FAIL

FAIL	Pipette cannot be adjusted; removed from service.
PASS	Pipette adjusted and placed back into service.
BLANK	

Name
Acosta_M
Ayres_J
Dowdell_C
Healy_E
Palmer_R
Petterson_C
Reddy_V
Thompson_M
Topolski_B