



TESTMARK Laboratories Ltd.

Committed to Quality and Service

CERTIFICATE OF ANALYSIS

| | | | |
|----------------------|--|---------------------|-----------------|
| Client: | Steve McCulloch | Work Order Number: | 375563 |
| Company: | RDSB - Espanola H.S. - AB ELLIS PS | PO #: | |
| Address: | 147 Spruce Street Espanola, ON, P5E 1R7 | Regulation: | O.Reg. 243/07 |
| Phone/Fax: | (705) 674-3171 / (705) 761-2442 | Project #: | |
| Email: | mcculls@rainbowschools.ca | DWS #: | 500039053 |
| | | Sampled By: | Steve McCulloch |
| Date Order Received: | 6/20/2019 | Analysis Started: | 6/26/2019 |
| Arrival Temperature: | 13 °C | Analysis Completed: | 6/27/2019 |

WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

| Sample Description | Lab ID | Matrix | Type | Comments | Date Collected | Time Collected |
|--------------------|---------|--------|----------|----------|----------------|----------------|
| 73 STANDING (S) | 1449951 | Water | Plumbing | | 6/20/2019 | 5:00 AM |
| 73 FLUSHED (F) | 1449952 | Water | Plumbing | | 6/20/2019 | 5:35 AM |
| 75 S | 1449953 | Water | Plumbing | | 6/20/2019 | 5:05 AM |
| 75 F | 1449954 | Water | Plumbing | | 6/20/2019 | 5:40 AM |
| 78 S | 1449955 | Water | Plumbing | | 6/20/2019 | 5:10 AM |
| 78 F | 1449956 | Water | Plumbing | | 6/20/2019 | 5:45 AM |
| 69B S | 1449957 | Water | Plumbing | | 6/20/2019 | 5:15 AM |
| 69B F | 1449958 | Water | Plumbing | | 6/20/2019 | 5:50 AM |
| 162B STANDING (S) | 1449959 | Water | Plumbing | | 6/20/2019 | 5:20 AM |
| 162B FLUSHED (F) | 1449960 | Water | Plumbing | | 6/20/2019 | 5:55 AM |
| 169 S | 1449961 | Water | Plumbing | | 6/20/2019 | 5:25 AM |
| 169 F | 1449962 | Water | Plumbing | | 6/20/2019 | 6:00 AM |
| 131B S | 1449963 | Water | Plumbing | | 6/20/2019 | 5:30 AM |
| 131B F | 1449964 | Water | Plumbing | | 6/20/2019 | 6:05 AM |
| 228B S | 1449965 | Water | Plumbing | | 6/20/2019 | 5:36 AM |
| 228B F | 1449966 | Water | Plumbing | | 6/20/2019 | 6:10 AM |



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|--------------------|---------|--------|----------|----------|----------------|----------------|
| D STANDING (S) | 1449967 | Water | Plumbing | | 6/20/2019 | 6:24 AM |
| D FLUSHED (F) | 1449968 | Water | Plumbing | | 6/20/2019 | 6:59 AM |
| A123H S | 1449969 | Water | Plumbing | | 6/20/2019 | 6:23 AM |
| A123H F | 1449970 | Water | Plumbing | | 6/20/2019 | 6:58 AM |
| C119C S | 1449971 | Water | Plumbing | | 6/20/2019 | 6:17 AM |
| C119C F | 1449972 | Water | Plumbing | | 6/20/2019 | 6:52 AM |
| C119D S | 1449973 | Water | Plumbing | | 6/20/2019 | 6:17 AM |
| C119D F | 1449974 | Water | Plumbing | | 6/20/2019 | 6:52 AM |
| C119E STANDING (S) | 1449975 | Water | Plumbing | | 6/20/2019 | 6:16 AM |
| C119E FLUSHED (F) | 1449976 | Water | Plumbing | | 6/20/2019 | 6:51 AM |
| C119F S | 1449977 | Water | Plumbing | | 6/20/2019 | 6:16 AM |
| C119F F | 1449978 | Water | Plumbing | | 6/20/2019 | 6:51 AM |
| C119G S | 1449979 | Water | Plumbing | | 6/20/2019 | 6:15 AM |
| C119G F | 1449980 | Water | Plumbing | | 6/20/2019 | 6:50 AM |
| D55A S | 1449981 | Water | Plumbing | | 6/20/2019 | 6:05 AM |
| D55A F | 1449982 | Water | Plumbing | | 6/20/2019 | 6:40 AM |
| 97A STANDING | 1449983 | Water | Plumbing | | 6/20/2019 | 6:02 AM |
| 97A FLUSHED | 1449984 | Water | Plumbing | | 6/20/2019 | 6:37 AM |

METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

| Method | Lab | Description | Reference |
|------------------------|--------|--|---------------------------|
| ICPMS Reg. Water (A13) | Garson | Determination of Metals in Water by ICP/MS | Modified from SW846-6020A |



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This report has been approved by:

Mark Charbonneau, Ph.D.
Laboratory Director



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WORK ORDER RESULTS

| Sample Description | 73 STANDING (S) | | 73 FLUSHED (F) | | 75 S | | 75 F | | Units | Criteria: O.Reg. 243/07 |
|--------------------|-------------------|-----|------------------|-----|----------------|-----|---------|-----|-------|-------------------------|
| Lab ID | 1449951 | | 1449952 | | 1449953 | | 1449954 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | | |
| Lead | <0.1 | 0.1 | 0.1 | 0.1 | <0.1 | 0.1 | <0.1 | 0.1 | ug/L | 10 |
| Sample Description | 78 S | | 78 F | | 69B S | | 69B F | | Units | Criteria: O.Reg. 243/07 |
| Lab ID | 1449955 | | 1449956 | | 1449957 | | 1449958 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | | |
| Lead | <0.1 | 0.1 | <0.1 | 0.1 | <0.1 | 0.1 | <0.1 | 0.1 | ug/L | 10 |
| Sample Description | 162B STANDING (S) | | 162B FLUSHED (F) | | 169 S | | 169 F | | Units | Criteria: O.Reg. 243/07 |
| Lab ID | 1449959 | | 1449960 | | 1449961 | | 1449962 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | | |
| Lead | 0.7 | 0.1 | 0.7 | 0.1 | 0.9 | 0.1 | 0.8 | 0.1 | ug/L | 10 |
| Sample Description | 131B S | | 131B F | | 228B S | | 228B F | | Units | Criteria: O.Reg. 243/07 |
| Lab ID | 1449963 | | 1449964 | | 1449965 | | 1449966 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | | |
| Lead | 0.2 | 0.1 | 0.1 | 0.1 | <0.1 [<0.1] | 0.1 | <0.1 | 0.1 | ug/L | 10 |
| Sample Description | D STANDING (S) | | D FLUSHED (F) | | A123H S | | A123H F | | Units | Criteria: O.Reg. 243/07 |
| Lab ID | 1449967 | | 1449968 | | 1449969 | | 1449970 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | | |
| Lead | 0.2 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | ug/L | 10 |



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| Sample Description | C119C S | | C119C F | | C119D S | | C119D F | | | |
|--------------------|---------|-----|---------|-----|---------|-----|---------|-----|-------|-------------------------|
| Lab ID | 1449971 | | 1449972 | | 1449973 | | 1449974 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | Units | Criteria: O.Reg. 243/07 |
| Lead | 0.8 | 0.1 | 1.3 | 0.1 | 0.4 | 0.1 | 0.4 | 0.1 | ug/L | 10 |

| Sample Description | C119E STANDING (S) | | C119E FLUSHED (F) | | C119F S | | C119F F | | | |
|--------------------|--------------------|-----|-------------------|-----|---------|-----|---------|-----|-------|-------------------------|
| Lab ID | 1449975 | | 1449976 | | 1449977 | | 1449978 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | Units | Criteria: O.Reg. 243/07 |
| Lead | 0.6 | 0.1 | 0.6 | 0.1 | 0.6 | 0.1 | 0.5 | 0.1 | ug/L | 10 |

| Sample Description | C119G S | | C119G F | | D55A S | | D55A F | | | |
|--------------------|---------|-----|---------|-----|---------|-----|---------|-----|-------|-------------------------|
| Lab ID | 1449979 | | 1449980 | | 1449981 | | 1449982 | | | |
| Metals | Result | MDL | Result | MDL | Result | MDL | Result | MDL | Units | Criteria: O.Reg. 243/07 |
| Lead | 0.8 | 0.1 | 0.4 | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | ug/L | 10 |

| Sample Description | 97A STANDING | | 97A FLUSHED | | | |
|--------------------|--------------|-----|-------------|-----|-------|-------------------------|
| Lab ID | 1449983 | | 1449984 | | | |
| Metals | Result | MDL | Result | MDL | Units | Criteria: O.Reg. 243/07 |
| Lead | 0.2 | 0.1 | 0.4 | 0.1 | ug/L | 10 |



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LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

[]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Quality Control: All associated Quality Control data is available on request.

LCL: Lower Control Limit.

UCL: Upper Control Limit.

QAQCID: This is a unique reference to the quality control data set used to generate the reported value. Contact our lab for this information, as it is traceable through our LIMS.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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QUALITY CONTROL DATA

THIS SECTION REPORTS QC RESULTS ASSOCIATED WITH THE TEST BATCH; THESE ARE NOT YOUR SAMPLE RESULTS.
QAQC details include only values where sufficient sample data allowed measurement.

Metals

Method Blank: LRB-6 (Blank- µg/L) (6)

| Parameter | MDL | Units | LCL | Result | UCL | QAQCID |
|-----------|-----|-------|-----|--------|-----|-----------------|
| Lead | 1 | ug/L | 0 | <1 | 1 | 20190627.A13.1B |
| Lead | 1 | ug/L | 0 | <1 | 1 | 20190627.A13.1C |

Positive Control: LFB-7 (N 100 µg/L) (7)

| Parameter | MDL | Units | LCL | Result | UCL | QAQCID |
|-----------|-----|-------|-----|--------|-----|-----------------|
| Lead | N/A | % | 80 | 95 | 120 | 20190627.A13.1B |
| Lead | N/A | % | 80 | 97 | 120 | 20190627.A13.1C |

Reference Sample: CRM-12 (EP-L-3) (12)

| Parameter | MDL | Units | LCL | Result | UCL | QAQCID |
|-----------|-----|-------|------|--------|------|-----------------|
| Lead | 1 | ug/L | 3.65 | 4.09 | 4.35 | 20190627.A13.1B |
| Lead | 1 | ug/L | 3.65 | 4.09 | 4.35 | 20190627.A13.1C |

Sample Spike: LFMS-9 (N 100 µg/L) (9)

| Parameter | MDL | Units | LCL | Result | UCL | QAQCID |
|-----------|-----|-------|-----|--------|-----|-----------------|
| Lead | N/A | % Rec | 70 | 100.3 | 130 | 20190627.A13.1C |
| Lead | N/A | % Rec | 70 | 101.7 | 130 | 20190627.A13.1B |

THIS INDEX SHOWS HOW YOUR SAMPLES ARE ASSOCIATED TO THE CONTROLS INCLUDED IN THE IDENTIFIED BATCHES.

| Sample Description | Lab ID | Method | QAQCID | Prep QAQCID |
|--------------------|---------|------------------------|-----------------|---------------|
| 131B F | 1449964 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 131B S | 1449963 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 162B FLUSHED (F) | 1449960 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 162B STANDING (S) | 1449959 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 169 F | 1449962 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 169 S | 1449961 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 228B F | 1449966 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |



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| | | | | |
|--------------------|----------|------------------------|-----------------|---------------|
| 228B S | 1449965 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| 228B S | 1449965r | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| 69B F | 1449958 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 69B S | 1449957 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 73 FLUSHED (F) | 1449952 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 73 STANDING (S) | 1449951 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 75 F | 1449954 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 75 S | 1449953 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 78 F | 1449956 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 78 S | 1449955 | ICPMS Reg. Water (A13) | 20190627.A13.1C | 20190626.A52U |
| 97A FLUSHED | 1449984 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| 97A STANDING | 1449983 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| A123H F | 1449970 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| A123H S | 1449969 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119C F | 1449972 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119C S | 1449971 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119D F | 1449974 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119D S | 1449973 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119E FLUSHED (F) | 1449976 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119E STANDING (S) | 1449975 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119F F | 1449978 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119F S | 1449977 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119G F | 1449980 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| C119G S | 1449979 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| D FLUSHED (F) | 1449968 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| D STANDING (S) | 1449967 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| D55A F | 1449982 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |
| D55A S | 1449981 | ICPMS Reg. Water (A13) | 20190627.A13.1B | 20190626.A52V |