PDC Laboratories, Inc.
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COLUMBIA PUBLIC SCHOOLS
DISTRICT WIDE SUMMARY
LEAD AND COPPER TESTING
JUNE AND JULY OF 2016

INTRODUCTION:

Although the USEPA Lead and Copper Rule (LCR) of 1991(reference: 40 CFR Part 141 Subpart I). may not directly apply to Columbia Public Schools and each of its individual schools or support buildings that are part of the 2016 Water Quality Assessment Reporting; it is a common practice for experts in the field and members of the known industry to use the LCR standard as a "**guideline**" for water assessment studies. The LCR frequently references a "90% criteria" whereas all samples collected in accordance with the LCR should have at least 90% of the lead values, and 90% of the copper values below the action limits of 1,300 ug/l for copper and 15 ug/l for lead. This same criteria has been applied to this study to be consistent with the LCR in part due to its current widespread recognition amongst the general public. This is NOT currently a legal requirement that schools must comply with. Public Water Suppliers however must comply with the USEPA law and the LCR. Columbia Water & Light is the publicly water utility that serves this school.

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TOTAL NUMBER OF FIRST DRAW SAMPLES COLLECTED:	1429
TOTAL NUMBER OF FIRST DRAW SAMPLES BELOW LEAD ACTION LIMIT:	1380
TOTAL NUMBER OF FIRST DRAW SAMPLES ABOVE LEAD ACTION LIMIT:	49
PERCENTAGE OF FIRST DRAW SAMPLES BELOW LEAD ACTION LIMIT:	**96.6%**
PERCENTAGE OF FRIST DRAW SAMPLES ABOVE LEAD ACTION LIMIT:	3.4%
TOTAL NUMBER OF FIRST DRAW SAMPLES BELOW COPPER ACTION LIMIT:	1418
TOTAL NUMBER OF FIRST DRAW SAMPLES ABOVE COPPER ACTION LIMIT:	11
PERCENTAGE OF FIRST DRAW SAMPLES BELOW COPPER ACTION LIMIT:	**99.2%**
PERCENTAGE OF FRIST DRAW SAMPLES ABOVE COPPER ACTION LIMIT:	0.8%

TOTAL NUMBER OF FOLLOW UP/FLUSH SAMPLES COLLECTED:	47
TOTAL NUMBER OF FOLLOW UP/FLUSH SAMPLES BELOW LEAD ACTION LIMIT:	44
TOTAL NUMBEROF FOLLOW UP/FLUSH SAMPLES ABOVE LEAD ACTION LIMIT:	3
TOTAL NUMBER OF FOLLOW UP/FLUSH SAMPLES BELOW COPPER ACTION LIMIT:	47
TOTAL NUMBEROF FOLLOW UP/FLUSH SAMPLES ABOVE COPPER ACTION LIMIT:	0

CONCLUSIONS:

As a whole the district far exceeded the 90% requirement of the lead and copper rule, for both lead and copper testing, as it applies to public water supplies.

Follow up/flush samples indicated 44 out of 47 fixtures that had initial lead or copper over the action limit will be below the action limits after a 30 second flush of the fixture. It should be recommended that these fixtures are flushed for 30 seconds prior to use for consumption.

Three samples that were still above the action limits after 30 seconds of flushing have been posted to not consume water from those fixtures. All three of these are in science lab areas where water should not be used for drinking otherwise, due to general lab safety protocol. Any other lab fixtures where the initial sample and/or the follow-up/flush samples were below the action levels should still not be used for consumption due to the fact they are in lab areas.

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All facilities in the district individually were above the 90% requirement of samples below the copper action limit of 1,300 ug/l..

Three facilities in the district individually were below the 90% requirement of samples below the lead action limit of 15 ug/l. The remainder of the facilities were above the 90% requirement of samples below the action limit for lead of 15 ug/l.

Individual Facilities and a brief summary are listed below:

ELEMENTARY SCHOOLS

Alpha Hart Lewis Elementary:
One sample exceeded the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Benton Elementary:
All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Beulah Ralph Elementary:
Two samples exceeded the copper action limit.
All samples were below the lead action limit
This facility met over 90% above the action limit for both lead and copper.

Blue Ridge Elementary:
All samples were below the action limits for both lead and copper.

Cedar Ridge Elementary:
All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Derby Ridge Elementary:
All samples were below the action limits for both lead and copper.

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Elliot Battle Elementary:

One sample exceeded the copper action limit.
All samples were below the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Fairview Elementary:

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Grant Elementary:

All samples were below the action limits for both lead and copper.

Lee Elementary:

All samples were below the action limits for both lead and copper.

Midway Heights Elementary:

All samples were below the action limits for both lead and copper.

Mill Creek Elementary:

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

New Haven Elementary:

All samples were below the action limits for both lead and copper.

Parkade Elementary:

All samples were below the action limits for both lead and copper.

Paxton Keeley Elementary:

One sample exceeded the copper action limit.
All samples were below the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

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Ridgeway Elementary:
All samples were below the action limits for both lead and copper.

Rock Bridge Elementary:
All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Russell Blvd Elementary:
All samples were below the action limits for both lead and copper.

Shepard Blvd Elementary:
All samples were below the copper action limit.
Two samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Two Mile Prairie Elementary:
All samples were below the action limits for both lead and copper.

West Blvd Elementary:
All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

MIDDLE SCHOOLS

Gentry Middle School:
All samples were below the copper action limit.
Two samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Jefferson Middle School:
Two samples exceeded the copper action limit.
Three samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

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Lange Middle School:
All samples were below the action limits for both lead and copper.

Oakland Middle School:
All samples were below the copper action limit.
Four samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
One follow-up/flush sample(s) was above the action limit for lead.

Smithton Middle School:
All samples were below the copper action limit.
Two samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

West Middle School:
All samples were below the copper action limit.
Three samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Two follow-up/flush sample(s) were above the action limit for lead.

HIGH SCHOOLS

Battle High School:
One sample exceeded the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Douglass High School
All samples were below the copper action limit.
Two samples exceeded the lead action limit.
This facility did not meet 90% below the lead action limit.

Hickman High School:
Two samples exceeded the copper action limit.
Twelve samples exceeded the lead action limit.
This facility did not meet 90% below the lead action limit.
Follow-up/flush sample(s) were all below the action limits.

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Rock Bridge High School:

One sample exceeded the copper action limit.
Six samples exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

OTHER FACILITIES

Aslin Building:

All samples were below the action limits for both lead and copper.

C.O.R.E.

All samples were below the action limits for both lead and copper.

Columbia Area Career Center:

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Early Childhood – Discovery:

All samples were below the action limits for both lead and copper.

Early Childhood - WACO:

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

Facilities & Construction Services:

All samples were below the action limits for both lead and copper.

Field School

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility met over 90% above the action limit for both lead and copper.
Follow-up/flush sample(s) were all below the action limits.

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Transportation (Bus Barn) :

All samples were below the copper action limit.
One sample exceeded the lead action limit.
This facility did not meet 90% below the lead action limit.
Follow-up/flush sample(s) were all below the action limits.

All of the district facilities have a more detailed summary for their facility. The detailed summaries include the facility name, number of samples collected, percentages of samples below the action limits, numbers of samples above the action limits, and conclusions/comments for that facility. A follow up/flush summary is also provided for each facility where follow up/flush samples were collected. This summary includes the facility name, the specific sample locations, the results for lead and copper for each sample point, a YES/NO evaluation as to whether the follow up/flush sample passed the action limit, and additional conclusion/comments for that facility.

Additionally, tabulated laboratory reports are included that show the specific sample points and results for every sample collected.

PREPARED BY:

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August 5, 2016