

POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

New Standard Academy



December 22, 2016

INTRODUCTION

During the month of April, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at New Standard Academy. These fixture replacements were required because testing results indicated that the older fixtures at most schools were imparting lead to the drinking water. After the fixtures were replaced, a more thorough flushing of the plumbing lines was completed to remove any remaining materials from the building's water supply system.

On Saturday, April 16, 2016, the DLARA and the Department of Environmental Quality conducted a post-fixture sampling assessment of the plumbing system at the facility.

For the protection of public health, DLARA started offering the installation of filters in Flint daycares and schools. This work began in July, 2016.

Water Main Description

An internal inspection of the building yielded a six-inch ductile iron main flanged to six-inch galvanized piping.

SAMPLING METHODS

Fixture Sampling

There are 46 drinking water fixtures that were identified at the school. After a minimum six-hour stagnation period, four samples were collected at each of the fixtures identified. Two initial samples were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third sample was collected. Finally, the water was flushed for another two minutes, and the fourth sample was collected. These samples were used to determine the impact of any lead sources in and around each specific fixture and its connecting plumbing.

Deep Plumbing Sampling

A different sampling method is used to determine the impact of any lead sources located deep in the supply plumbing of the building. During this method, ten bottles are collected in a row (consecutively). These bottles are one liter in size, which is larger than those used for the fixture sampling method.

Sampling Notes

- One hundred and eighty-two samples from the 46 fixtures were collected and sent to the lab for analysis.
- Seventy samples from seven specific fixtures were collected to test the deeper part of the plumbing system and sent to the lab for analysis.
- A drinking water bubbler was permanently removed (01DW006).
- During the sampling, the drinking water bubbler in the women's locker room (01DW007) stopped flowing, due to a clog upstream of the fixture. The water flow from the fixture stopped, so samples for F01 and F02 could not be obtained.

SAMPLING RESULTS

Post-Fixture Replacement

April 16, 2016

Of the 252 samples:

- Lead Range: Non-Detected (ND) to 415 parts per billion (ppb)
- Copper Range: ND to 2,090 ppb

* Where the result is non-detected for lead it means that the amount of lead in the water was less than 1 ppb.

* Where the result is non-detected for copper it means that the amount of copper in the water was less than 50 ppb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	01WC001 CAFETERIA SW CORNER	P1	Copper	590
Lead	5	01WC001 CAFETERIA SW CORNER	P2	Copper	270
Lead	ND	01WC001 CAFETERIA SW CORNER	F01	Copper	180
Lead	ND	01WC001 CAFETERIA SW CORNER	F02	Copper	60
Lead	ND	01WC002 CAFETERIA SW CORNER	P1	Copper	590
Lead	2	01WC002 CAFETERIA SW CORNER	P2	Copper	250
Lead	ND	01WC002 CAFETERIA SW CORNER	F01	Copper	70
Lead	ND	01WC002 CAFETERIA SW CORNER	F02	Copper	60
Lead	ND	01WC003 CAFETERIA NE CORNER	P1	Copper	1,510
Lead	4	01WC003 CAFETERIA NE CORNER	P2	Copper	330
Lead	ND	01WC003 CAFETERIA NE CORNER	F01	Copper	160
Lead	ND	01WC003 CAFETERIA NE CORNER	F02	Copper	100
Lead	ND	01WC004 CAFETERIA NE CORNER	P1	Copper	1,390
Lead	ND	01WC004 CAFETERIA NE CORNER	P2	Copper	280
Lead	ND	01WC004 CAFETERIA NE CORNER	F01	Copper	100
Lead	ND	01WC004 CAFETERIA NE CORNER	F02	Copper	90
Lead	19	01DW005 GYM	P1	Copper	90
Lead	ND	01DW005 GYM	P2	Copper	90
Lead	ND	01DW005 GYM	F01	Copper	140
Lead	ND	01DW005 GYM	F02	Copper	ND
Lead	40	01DW007 WOMEN'S LOCKER ROOM	P1	Copper	640
Lead	4	01DW007 WOMEN'S LOCKER ROOM	P2	Copper	320
Lead	17	01DW008 MEN'S LOCKER ROOM	P1	Copper	380
Lead	4	01DW008 MEN'S LOCKER ROOM	P2	Copper	460
Lead	ND	01DW008 MEN'S LOCKER ROOM	F01	Copper	210
Lead	ND	01DW008 MEN'S LOCKER ROOM	F02	Copper	ND
Lead	10	01DW009 TRAINING ROOM	P1	Copper	320
Lead	ND	01DW009 TRAINING ROOM	P2	Copper	320
Lead	ND	01DW009 TRAINING ROOM	F01	Copper	250
Lead	ND	01DW009 TRAINING ROOM	F02	Copper	ND
Lead	2	01CF010 SACRISTY ROOM	P1	Copper	110
Lead	ND	01CF010 SACRISTY ROOM	P2	Copper	220
Lead	ND	01CF010 SACRISTY ROOM	F01	Copper	180
Lead	ND	01CF010 SACRISTY ROOM	F02	Copper	ND
Lead	84	01DW011 ACROSS ROOM B33	P1	Copper	130
Lead	11	01DW011 ACROSS ROOM B33	P2	Copper	130
Lead	2	01DW011 ACROSS ROOM B33	F01	Copper	80
Lead	8	01DW011 ACROSS ROOM B33	F02	Copper	ND
Lead	6	01DW012 ACROSS ROOM B33	P1	Copper	130
Lead	ND	01DW012 ACROSS ROOM B33	P2	Copper	ND
Lead	ND	01DW012 ACROSS ROOM B33	F01	Copper	ND
Lead	ND	01DW012 ACROSS ROOM B33	F02	Copper	ND

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	3	01DW013 ACROSS ROOM B33	P1	Copper	60
Lead	1	01DW013 ACROSS ROOM B33	P2	Copper	ND
Lead	ND	01DW013 ACROSS ROOM B33	F01	Copper	ND
Lead	ND	01DW013 ACROSS ROOM B33	F02	Copper	ND
Lead	109	02DW014 RIGHT OF GIRL`S RESTROOM	P1	Copper	150
Lead	ND	02DW014 RIGHT OF GIRL`S RESTROOM	P2	Copper	ND
Lead	3	02DW014 RIGHT OF GIRL`S RESTROOM	F01	Copper	140
Lead	ND	02DW014 RIGHT OF GIRL`S RESTROOM	F02	Copper	ND
Lead	415	02DW015 RIGHT OF GIRL`S RESTROOM	P1	Copper	300
Lead	12	02DW015 RIGHT OF GIRL`S RESTROOM	P2	Copper	160
Lead	2	02DW015 RIGHT OF GIRL`S RESTROOM	F01	Copper	ND
Lead	1	02DW015 RIGHT OF GIRL`S RESTROOM	F02	Copper	ND
Lead	24	02DW016 NEXT TO BOY`S RESTROOM	P1	Copper	300
Lead	1	02DW016 NEXT TO BOY`S RESTROOM	P2	Copper	290
Lead	ND	02DW016 NEXT TO BOY`S RESTROOM	F01	Copper	140
Lead	ND	02DW016 NEXT TO BOY`S RESTROOM	F02	Copper	ND
Lead	15	02DW017 NEXT TO BOY`S RESTROOM	P1	Copper	360
Lead	ND	02DW017 NEXT TO BOY`S RESTROOM	P2	Copper	370
Lead	ND	02DW017 NEXT TO BOY`S RESTROOM	F01	Copper	ND
Lead	ND	02DW017 NEXT TO BOY`S RESTROOM	F02	Copper	ND
Lead	338	02DW018 NEXT TO BOY`S RESTROOM	P1	Copper	170
Lead	18	02DW018 NEXT TO BOY`S RESTROOM	P2	Copper	130
Lead	2	02DW018 NEXT TO BOY`S RESTROOM	F01	Copper	ND
Lead	2	02DW018 NEXT TO BOY`S RESTROOM	F02	Copper	ND
Lead	11	02DW019 NEXT TO BOY`S RESTROOM	P1	Copper	330
Lead	ND	02DW019 NEXT TO BOY`S RESTROOM	P2	Copper	260
Lead	ND	02DW019 NEXT TO BOY`S RESTROOM	F01	Copper	ND
Lead	ND	02DW019 NEXT TO BOY`S RESTROOM	F02	Copper	ND
Lead	157	02DW020 NEXT TO WOMEN`S RESTROOM	P1	Copper	280
Lead	5	02DW020 NEXT TO WOMEN`S RESTROOM	P2	Copper	250
Lead	2	02DW020 NEXT TO WOMEN`S RESTROOM	F01	Copper	60
Lead	ND	02DW020 NEXT TO WOMEN`S RESTROOM	F02	Copper	ND
Lead	30	02DW021 NEXT TO WOMEN`S RESTROOM	P1	Copper	270
Lead	ND	02DW021 NEXT TO WOMEN`S RESTROOM	P2	Copper	190
Lead	ND	02DW021 NEXT TO WOMEN`S RESTROOM	F01	Copper	ND
Lead	ND	02DW021 NEXT TO WOMEN`S RESTROOM	F02	Copper	ND
Lead	15	02KC022 D 20 ROOM	P1	Copper	620
Lead	12	02KC022 D 20 ROOM	P2	Copper	330
Lead	1	02KC022 D 20 ROOM	F01	Copper	280
Lead	ND	02KC022 D 20 ROOM	F02	Copper	280
Lead	6	02KC023 D 20 ROOM	P1	Copper	160
Lead	22	02KC023 D 20 ROOM	P2	Copper	380

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	02KC023 D 20 ROOM	F01	Copper	310
Lead	ND	02KC023 D 20 ROOM	F02	Copper	260
Lead	5	02KC024 D 20 ROOM	P1	Copper	330
Lead	2	02KC024 D 20 ROOM	P2	Copper	360
Lead	ND	02KC024 D 20 ROOM	F01	Copper	280
Lead	ND	02KC024 D 20 ROOM	F02	Copper	180
Lead	9	02KC025 D 20 ROOM	P1	Copper	130
Lead	68	02KC025 D 20 ROOM	P2	Copper	310
Lead	3	02KC025 D 20 ROOM	F01	Copper	250
Lead	1	02KC025 D 20 ROOM	F02	Copper	90
Lead	5	02KC026 D 21 ROOM	P1	Copper	380
Lead	14	02KC026 D 21 ROOM	P2	Copper	170
Lead	ND	02KC026 D 21 ROOM	F01	Copper	90
Lead	2	02KC026 D 21 ROOM	F02	Copper	70
Lead	2	02KC027 D 21 ROOM	P1	Copper	130
Lead	8	02KC027 D 21 ROOM	P2	Copper	320
Lead	ND	02KC027 D 21 ROOM	F01	Copper	340
Lead	ND	02KC027 D 21 ROOM	F02	Copper	70
Lead	3	01KC028	P1	Copper	110
Lead	8	01KC028	P2	Copper	230
Lead	ND	01KC028	F01	Copper	160
Lead	ND	01KC028	F02	Copper	80
Lead	27	01DW029 NEXT TO CUSTODIAN	P1	Copper	250
Lead	8	01DW029 NEXT TO CUSTODIAN	P2	Copper	190
Lead	2	01DW029 NEXT TO CUSTODIAN	F01	Copper	ND
Lead	ND	01DW029 NEXT TO CUSTODIAN	F02	Copper	ND
Lead	54	01DW030 NEXT TO CUSTODIAN	P1	Copper	660
Lead	13	01DW030 NEXT TO CUSTODIAN	P2	Copper	290
Lead	1	01DW030 NEXT TO CUSTODIAN	F01	Copper	ND
Lead	ND	01DW030 NEXT TO CUSTODIAN	F02	Copper	ND
Lead	18	01DW031 NEXT TO CUSTODIAN	P1	Copper	320
Lead	24	01DW031 NEXT TO CUSTODIAN	P2	Copper	80
Lead	13	01DW031 NEXT TO CUSTODIAN	F01	Copper	ND
Lead	ND	01DW031 NEXT TO CUSTODIAN	F02	Copper	ND
Lead	2	01KC032 ROOM 140 B1	P1	Copper	90
Lead	5	01KC032 ROOM 140 B1	P2	Copper	110
Lead	ND	01KC032 ROOM 140 B1	F01	Copper	160
Lead	ND	01KC032 ROOM 140 B1	F02	Copper	ND
Lead	5	01KC033 ROOM 140 B1	P1	Copper	60
Lead	3	01KC033 ROOM 140 B1	P2	Copper	130
Lead	ND	01KC033 ROOM 140 B1	F01	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	F02	Copper	ND

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	12	01KC034 ROOM 141	P1	Copper	190
Lead	8	01KC034 ROOM 141	P2	Copper	210
Lead	1	01KC034 ROOM 141	F01	Copper	280
Lead	ND	01KC034 ROOM 141	F02	Copper	170
Lead	22	01DW035 HALL LEFT OF OFFICE	P1	Copper	570
Lead	13	01DW035 HALL LEFT OF OFFICE	P2	Copper	290
Lead	2	01DW035 HALL LEFT OF OFFICE	F01	Copper	170
Lead	ND	01DW035 HALL LEFT OF OFFICE	F02	Copper	70
Lead	375	01DW036 HALL LEFT OF OFFICE	P1	Copper	960
Lead	109	01DW036 HALL LEFT OF OFFICE	P2	Copper	660
Lead	5	01DW036 HALL LEFT OF OFFICE	F01	Copper	140
Lead	1	01DW036 HALL LEFT OF OFFICE	F02	Copper	ND
Lead	6	01DW037 HALL LEFT OF OFFICE	P1	Copper	120
Lead	2	01DW037 HALL LEFT OF OFFICE	P2	Copper	90
Lead	ND	01DW037 HALL LEFT OF OFFICE	F01	Copper	80
Lead	ND	01DW037 HALL LEFT OF OFFICE	F02	Copper	ND
Lead	12	01DW038 HALL LEFT OF OFFICE	P1	Copper	130
Lead	ND	01DW038 HALL LEFT OF OFFICE	P2	Copper	ND
Lead	ND	01DW038 HALL LEFT OF OFFICE	F01	Copper	ND
Lead	ND	01DW038 HALL LEFT OF OFFICE	F02	Copper	ND
Lead	3	01KC039 STUDENT SUPPORT ROOM	P1	Copper	120
Lead	2	01KC039 STUDENT SUPPORT ROOM	P2	Copper	160
Lead	ND	01KC039 STUDENT SUPPORT ROOM	F01	Copper	90
Lead	ND	01KC039 STUDENT SUPPORT ROOM	F02	Copper	ND
Lead	3	01KC040 ROOM 104	P1	Copper	80
Lead	5	01KC040 ROOM 104	P2	Copper	210
Lead	ND	01KC040 ROOM 104	F01	Copper	ND
Lead	ND	01KC040 ROOM 104	F02	Copper	ND
Lead	2	01KC041 ROOM 111	P1	Copper	120
Lead	ND	01KC041 ROOM 111	P2	Copper	80
Lead	ND	01KC041 ROOM 111	F01	Copper	90
Lead	ND	01KC041 ROOM 111	F02	Copper	ND
Lead	ND	01CF042 ROOM 110	P1	Copper	160
Lead	ND	01CF042 ROOM 110	P2	Copper	190
Lead	ND	01CF042 ROOM 110	F01	Copper	200
Lead	ND	01CF042 ROOM 110	F02	Copper	280
Lead	48	02DW043 NEXT TO GIRL'S RESTROOM	P1	Copper	260
Lead	2	02DW043 NEXT TO GIRL'S RESTROOM	P2	Copper	180
Lead	ND	02DW043 NEXT TO GIRL'S RESTROOM	F01	Copper	50
Lead	ND	02DW043 NEXT TO GIRL'S RESTROOM	F02	Copper	ND
Lead	196	02DW044 NEXT TO GIRL'S RESTROOM	P1	Copper	250
Lead	16	02DW044 NEXT TO GIRL'S RESTROOM	P2	Copper	100

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	3	02DW044 NEXT TO GIRL'S RESTROOM	F01	Copper	ND
Lead	1	02DW044 NEXT TO GIRL'S RESTROOM	F02	Copper	ND
Lead	11	02DW045 NEXT TO BOY'S RESTROOM	P1	Copper	1,240
Lead	4	02DW045 NEXT TO BOY'S RESTROOM	P2	Copper	2,090
Lead	1	02DW045 NEXT TO BOY'S RESTROOM	F01	Copper	330
Lead	5	02DW045 NEXT TO BOY'S RESTROOM	F02	Copper	130
Lead	13	02DW046 NEXT TO BOY'S RESTROOM	P1	Copper	250
Lead	ND	02DW046 NEXT TO BOY'S RESTROOM	P2	Copper	140
Lead	ND	02DW046 NEXT TO BOY'S RESTROOM	F01	Copper	60
Lead	ND	02DW046 NEXT TO BOY'S RESTROOM	F02	Copper	ND
Lead	1	02KC047 ROOM 206	P1	Copper	ND
Lead	ND	02KC047 ROOM 206	P2	Copper	130
Lead	ND	02KC047 ROOM 206	F01	Copper	ND
Lead	ND	02KC047 ROOM 206	F02	Copper	ND
Lead	ND	01WC002 CAFETERIA SW CORNER	CA1	Copper	290
Lead	1	01WC002 CAFETERIA SW CORNER	CA2	Copper	170
Lead	ND	01WC002 CAFETERIA SW CORNER	CA3	Copper	100
Lead	ND	01WC002 CAFETERIA SW CORNER	CA4	Copper	60
Lead	ND	01WC002 CAFETERIA SW CORNER	CA5	Copper	60
Lead	ND	01WC002 CAFETERIA SW CORNER	CA6	Copper	50
Lead	ND	01WC002 CAFETERIA SW CORNER	CA7	Copper	60
Lead	ND	01WC002 CAFETERIA SW CORNER	CA8	Copper	70
Lead	ND	01WC002 CAFETERIA SW CORNER	CA9	Copper	60
Lead	ND	01WC002 CAFETERIA SW CORNER	CA10	Copper	50
Lead	ND	01CF010 SACRISTY ROOM	CB1	Copper	150
Lead	ND	01CF010 SACRISTY ROOM	CB2	Copper	160
Lead	ND	01CF010 SACRISTY ROOM	CB3	Copper	80
Lead	ND	01CF010 SACRISTY ROOM	CB4	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB5	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB6	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB7	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB8	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB9	Copper	ND
Lead	ND	01CF010 SACRISTY ROOM	CB10	Copper	ND
Lead	2	02KC022 D 20 ROOM	CC1	Copper	330
Lead	ND	02KC022 D 20 ROOM	CC2	Copper	230
Lead	ND	02KC022 D 20 ROOM	CC3	Copper	190
Lead	ND	02KC022 D 20 ROOM	CC4	Copper	230
Lead	ND	02KC022 D 20 ROOM	CC5	Copper	190
Lead	ND	02KC022 D 20 ROOM	CC6	Copper	150
Lead	ND	02KC022 D 20 ROOM	CC7	Copper	140
Lead	ND	02KC022 D 20 ROOM	CC8	Copper	140

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	02KC022 D 20 ROOM	CC9	Copper	160
Lead	ND	02KC022 D 20 ROOM	CC10	Copper	140
Lead	4	02KC026 D 21 ROOM	CD1	Copper	260
Lead	ND	02KC026 D 21 ROOM	CD2	Copper	300
Lead	ND	02KC026 D 21 ROOM	CD3	Copper	220
Lead	ND	02KC026 D 21 ROOM	CD4	Copper	170
Lead	ND	02KC026 D 21 ROOM	CD5	Copper	160
Lead	ND	02KC026 D 21 ROOM	CD6	Copper	140
Lead	ND	02KC026 D 21 ROOM	CD7	Copper	110
Lead	ND	02KC026 D 21 ROOM	CD8	Copper	90
Lead	ND	02KC026 D 21 ROOM	CD9	Copper	80
Lead	ND	02KC026 D 21 ROOM	CD10	Copper	70
Lead	4	01KC033 ROOM 140 B1	CE1	Copper	70
Lead	ND	01KC033 ROOM 140 B1	CE2	Copper	90
Lead	ND	01KC033 ROOM 140 B1	CE3	Copper	80
Lead	ND	01KC033 ROOM 140 B1	CE4	Copper	70
Lead	ND	01KC033 ROOM 140 B1	CE5	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	CE6	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	CE7	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	CE8	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	CE9	Copper	ND
Lead	ND	01KC033 ROOM 140 B1	CE10	Copper	ND
Lead	ND	01KC040 ROOM 104	CF1	Copper	110
Lead	ND	01KC040 ROOM 104	CF2	Copper	80
Lead	ND	01KC040 ROOM 104	CF3	Copper	ND
Lead	ND	01KC040 ROOM 104	CF4	Copper	ND
Lead	ND	01KC040 ROOM 104	CF5	Copper	ND
Lead	ND	01KC040 ROOM 104	CF6	Copper	ND
Lead	ND	01KC040 ROOM 104	CF7	Copper	ND
Lead	ND	01KC040 ROOM 104	CF8	Copper	ND
Lead	ND	01KC040 ROOM 104	CF9	Copper	ND
Lead	ND	01KC040 ROOM 104	CF10	Copper	ND
Lead	ND	02KC047 ROOM 206	CG1	Copper	60
Lead	ND	02KC047 ROOM 206	CG2	Copper	ND
Lead	ND	02KC047 ROOM 206	CG3	Copper	ND
Lead	ND	02KC047 ROOM 206	CG4	Copper	ND
Lead	ND	02KC047 ROOM 206	CG5	Copper	ND
Lead	ND	02KC047 ROOM 206	CG6	Copper	ND
Lead	ND	02KC047 ROOM 206	CG7	Copper	ND
Lead	ND	02KC047 ROOM 206	CG8	Copper	ND
Lead	ND	02KC047 ROOM 206	CG9	Copper	ND
Lead	ND	02KC047 ROOM 206	CG10	Copper	ND

Non-detected (ND) means; for lead the amount in water is less than 1 pbb and for copper the amount in water is less than 50 pbb.