DEPARTMENT OF HEALTH & HUMAN SERVICES

Program Support Center

Federal Occupational Health Service
1301 Young Street, Suite 772
Dallas, Texas 75202

DRINKING WATER TESTING FOR LEAD, COPPER AND IRON

CONDUCTED FOR:

GENERAL SERVICES ADMINSTRATION
REGION 7 SAFETY AND ENVIRONMENTAL TEAM
819 TAYLOR STREET
FORT WORTH, TEXAS 76102

PERFORMED AT:

ABILENE POST OFFICE AND COURTHOUSE
341 PINE STREET
ABILENE, TX 79601

GSA BUILDING TX0001

MARCH 10, 2016

CONDUCTED BY:

U.S. PUBLIC HEALTH SERVICE
FEDERAL OCCUPATIONAL HEALTH SERVICES
1301 YOUNG STREET, SUITE 772
DALLAS, TEXAS 75202

REPORT PREPARED:

MARCH 22, 2016

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EXECUTIVE SUMMARY

On March 10, 2016, the U.S. Public Health Service (USPHS), Federal Occupational Health (FOH) conducted drinking water testing of representative sources of drinking water at the Abilene Post Office and Federal Courthouse located at 341 Pine Street in Abilene, Texas. The testing was conducted in response to building occupant/management concerns regarding water quality in the building. The evaluation included sampling and analysis for the EPA primary drinking water constituents of lead, copper and iron. In addition, one sample was collected near the water meter in an effort to determine if the drinking water meets the U.S. Environmental Protection Agency (EPA) National Primary Drinking Water Regulations and Standards for the analytes sampled.

A total of twenty drinking water samples were collected from 21 different sources from the basement and floors 1 through 3, which included representative sink faucets, refrigerators and drinking water fountains. Additionally, one sample was collected from an exterior faucet outlet. Each water source to be tested was flushed for one minute the afternoon before testing was scheduled, except the exterior faucet outlet sample (inaccessible), and labeled at not to be used before the samples were collected the following day. The samples were then collected early the next morning prior to use of the water source by building occupants. All samples were analyzed for the EPA primary drinking water constituents of lead, copper and iron.

Eleven of the twenty-one samples collected exceeded the EPA action level for lead of 15 parts per billion (ppb). Six of these eleven samples also exceeded the EPA action level for copper of 1.3 parts per million (ppm). One additional sample that did not exceed the EPA lead action level exceeded the EPA action level for copper. Finally, ten of these eleven samples exceeded the EPA action level for iron of 0.30 ppm and an additional two samples that did not exceed the EPA lead action level exceeded the EPA action level for iron.

Refer to Table 1 for sample results and Appendix A for the Laboratory Sample Report.

Recommendations:

1. Remove from service all outlets that had elevated lead, copper and/or iron present in the water.

2. A complete flushing of the hot water tank and the building hot water system should be performed.

3. After the flushing of the hot water system, FOH recommends follow up testing of these water outlets be performed. An initial and follow-up protocol should be utilized to determine if the lead, copper and/or iron contaminations are generated from the fixture itself or upstream within the system. This test can also be used to determine if a daily flushing regimen will control lead copper and/or iron contaminations of drinking water at this source.

I. INTRODUCTION

Industrial Hygienist Mr. Joe Loflin representing the U. S. Public Health Service (USPHS) Federal Occupational Health (FOH) Program, performed the water quality testing on March 10, 2016. Ms. Jennifer Zenuch of the General Services Administration (GSA), Region 7 Safety and Environmental Team initiated the request for the performance of this project. The local point of contact for this project was Mr. Aaron Bollinger. The assistant and support received from this representative and all other personnel involved was sincerely appreciated.

To assure the safety of the nation's drinking water, the Environmental Protection Agency (EPA), under authority of the Safe Drinking Water Act (SDWA), has established drinking water standards for contaminants that pose a threat to human health. Public water suppliers are regulated under the SDWA. The General Services Administration requested this testing in response to a number of building occupant/management concerns over water quality in the building. As a result, sampling and analysis for EPA primary drinking water constituent's copper, lead, iron was conducted to determine if the drinking water meets the U.S. Environmental Protection Agency (EPA) National Primary Drinking Water Regulations and Standards for the parameters mentioned above.

II. BUILDING PROFILE

The Abilene Post Office and Federal Courthouse, GSA Building #TX0001 is located at 341 Pine Street in Abilene, Texas. The US Postal Service maintains the building and occupies the basement and first floors. The US Courts and other federal agencies occupy the second floor of the building. The third floor is currently unoccupied. In addition a large number of the general public occupy the building during office hours. The building is a three-story reinforced concrete structure with a basement. Interior construction within the building includes vinyl and fabric-covered drywall partitions, carpet, ceramic and vinyl floor tile, fixed windows and a suspended ceiling acoustical ceiling tile.

III. METHOD OF SURVEY / ANALYSIS

This assessment was conducted using standard methods and protocols recognized as appropriate for water/sanitary surveys by the Environmental Protection Agency (EPA)–National Drinking Water Standards and the Safe Drinking Water Act; American Water Works Association; National Institute for Occupational Safety and Health (NIOSH); the Occupational Safety and Health Administration (OSHA); and the American Conference of Governmental Industrial Hygienists (ACGIH).

Representative water outlets of concern located in the basement and on floors 1 through 3 were selected for testing. Building occupants reported that the building water heater had recently been replaced. After the replacement of the building water heater, water being dispenced from the hot water outlets in the sinks of the building was noticeably discolored, causing building occupant concerns. As a result, testing of the drinking water, including the water from the hot water outlets, was requested. The following sampling protocol was used during this survey:

Each water-dispensing outlet was flushed for a minimum of 60 seconds the afternoon before sampling was performed. The following morning, the water samples were collected by USPHS/FOH. The water sample was collected immediately after opening the outlet. A one-liter sample was collected for EPA metal analysis (lead, copper and iron). A unique identifier was assigned to each sample.

The water samples collected for analysis were appropriately packaged and sent to the FOH Environmental Laboratory in Chicago, IL for analysis. Once received at the lab, lead analysis was completed in accordance with EPA method 200.9. The copper and iron analysis was completed in accordance with and Standard Methods for the Examination of Water and Wastewater (S/M) 3111B.

IV. DISCUSSION

Drinking Water Quality

The principle law governing drinking water safety in the U.S. is the Safe Drinking Water Act (SDWA). Enacted initially in 1974, the SDWA authorizes the US EPA to establish comprehensive national drinking water regulations to ensure drinking water safety. Drinking water regulations established by the USEPA typically require water utilities to meet specified water quality standards. These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations. Regulations also require that certain monitoring be conducted, that specified treatment be applied, and that the supplier submit reports to document that the regulations are being met. To ensure that water quality regulations are not violated, a water supplier usually must produce water of higher quality than the standard or regulation would demand.

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards. Since these contaminants are not health threatening at the suggested maximum contaminate level (SMCL) and public water systems only need test for them on a voluntary basis. EPA believes that if these contaminants are present in your water at levels above these standards, the contaminants may cause the water to appear cloudy or colored, or to taste or smell bad. This may cause a great number of people to stop using water from their public water system even though the water is actually safe to drink. Secondary standards are set to give public water systems some guidance on removing these chemicals to levels that are below what most people will find to be noticeable.

Lead in Drinking Water

Lead is a metal found in natural deposits as ores containing other elements. It is sometimes used in plumbing materials or in water service lines used to bring water from the main to a building. Lead poses a significant public health threat because it builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. EPA estimates that approximately 20% of human exposure to lead is attributable to lead in drinking water. Lead may occur in drinking water either by contamination of the source water used by the water system, or by corrosion of lead plumbing or fixtures. Corrosion of plumbing is by far the greatest cause for concern. All water is corrosive to metal plumbing materials to some degree. Grounding of electrical systems to plumbing may also exacerbate corrosion. Over time, lead-containing plumbing materials will usually develop a scale that minimizes further corrosion of the pipe.

The Safe Drinking Water Act requires EPA to determine safe levels of chemicals in drinking water that do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals. The MCLG for lead has been set at zero because EPA believes this level of protection would not cause any of the potential health problems associated with lead ingestion. Since lead contamination generally occurs from corrosion of lead pipes or materials containing lead such as lead solder, brass, bronze and other alloys containing lead in contact with the water, it cannot be directly detected or removed by the water system. The amount of lead attributable to corrosion by-products in the water depends on a number of factors, including the amount and age of lead bearing materials susceptible to corrosion, the way they were manufactured, how long the water is in contact with the lead containing surfaces, and how corrosive the water is toward these materials. The corrosivity of water is influenced by a number of factors, including acidity, alkalinity, dissolved solids and hardness. In general, soft acidic waters are more corrosive to lead than hard waters.

Because the water authority cannot easily directly detect or remove lead in the water distribution system, the EPA is requiring water authorities to control the corrosiveness of their water if the level of lead at building taps exceeds an Action Level. The Action Level for lead has been set at 15 parts per billion (ppb) because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to control this contaminant should it occur in drinking water at their customers taps.

Copper in Drinking Water

Copper is regarded as a nutritionally essential element in low doses since it is required in many enzymatic reactions in humans. However, in high doses, copper is harmful to human health because it can cause acute gastrointestinal disturbances as well as chronic adverse health effects. Copper is a much less toxic substance than lead. The EPA hasn't banned the use of copper in plumbing systems, as they have with lead.

Because copper is less harmful than lead and less likely to reach toxic levels. Copper poisoning is usually an acute condition, not a cumulative one as with lead. That is, the health effects of copper exposure tend to show up right away, rather than slowly building up over time. Because of the immediate and obvious health effects of copper, long-term exposure (and permanent damage) is usually avoided. Copper in drinking water is regulated by the Environmental Protection Agency (EPA) under the authority of the Safe Drinking Water Act of 1974 (amended 1986). The EPA's Lead and Copper Rule (June 7, 1991) requires corrective measures (interim or permanent) if the copper action level of 1.3 parts per million (ppm) is exceeded.

Iron in Drinking Water

Iron is regarded as a nutritionally essential element in low doses since it is required in many enzymatic reactions in humans. Because iron is less harmful than lead and less likely to reach toxic levels, iron poisoning is usually an acute condition, not a cumulative one as with lead. That is, the health effects of iron exposure tend to show up right away, rather than slowly building up over time. Because of the immediate and obvious health effects of iron, long-term exposure (and permanent damage) is usually avoided.

Due to its very low risk to human health in drinking water, iron has been placed under the National Secondary Drinking Water Regulations which set non-mandatory water quality standards for 15 contaminants. The EPA recommended Secondary Maximum Contaminant Level (SMCL) for iron is 0.3 ppm. The EPA does not enforce the SMCLs, which are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor.

VII. FINDINGS AND CONCLUSIONS

A total of twenty drinking water samples were collected from 20 different sources from the building which included representative sink faucets, refrigerators and drinking water fountains. Additionally, one sample was collected from an exterior water faucet outlet. This exterior faucet was not flushed for one minute the afternoon before testing as it was not accessible.

Results of the testing of the hot water outlets indicated levels of lead, copper and iron above the EPA Action Level in all samples. The replacement of the water heater in the building appears to have had an effect on the water dispensed from the hot water outlets in the building.

Refer to Table 1 below for sample results and Appendix A for the Laboratory Sample Report.

TABLE 1
Lead, Copper and Iron Results
Abilene Post Office and Federal Courthouse
March 10, 2016

Sample #	Location	Lead (ppb)	Copper (ppm)	Iron (ppm)
001-01W	2nd Floor, Drinking Fountain	18.7	0.005	<0.100
001-02W	2nd Floor Handicap Restroom Sink Hot/Cold Outlet	59.9	1.84	3.29
001-03W	2nd Floor Women's Restroom Sink Hot Outlet	75.5	1.95	3.94
001-04W	2nd Floor Women's Restroom Big Sink Hot Outlet	135	1.82	3.18
001-05W	2nd Floor Clerk Office Restroom Sink Hot Outlet	3.97	1.21	0.82
001-06W	2nd Floor Clerk Office Restroom Sink Cold Outlet	5.57	0.044	<0.100
001-07W	2nd Floor Probation Rm 2324 Men's RR Left Sink Hot Outlet	33.0	1.72	2.09
001-08W	2nd Floor Rm 2313 Judge's Office Kitchen Sink Hot Outlet	<1.00	12.3	16.9
001-09W	2nd Floor Room 2313 Judge's Office Refrigerator Outlet	<1.00	<0.020	<0.100
001-10W	3rd Floor, Jury Room Drinking Fountain	94.6	0.387	2.07
001-11W	3rd Floor, Jury Room Restroom Right Sink Hot Outlet	74.0	1.28	2.67
001-12W	1st Floor Post Office Work Room Center Water Fountain	1.05	0.346	<0.100
001-13W	1st Floor Post Office File Room Sink Cold Outlet	8.64	0.068	<0.100
001-14W	1st Floor PO Women's RR By File Room Sink Hot Outlet	408	3.77	2.65
001-15W	1st Floor Post Office Area Water Fountain	12.4	0.657	<0.100
001-16W	1st Floor PO Room 1005 Restroom Hot Outlet	74.2	1.90	3.69
001-17W	Basement Break Room Water Fountain	8.11	0.833	<0.100
001-18W	Basement Break Room Sink Outlet	8.89	0.472	<0.100
001-19W	Basement Men's Restroom Right Sink Hot Outlet	31.9	1.04	0.98
001-20W	Basement Women's Restroom Left Sink Cold Outlet	11.5	0.043	<0.100
001-21W	Outside Water Faucet	39.0	0.637	0.66

*Indicates sample exceeded the EPA Action Level

Parameter	EPA Action Level/ MCLG
Lead	15 parts per billion (ppb)
Copper	1.3 parts per million (ppm)
Iron	0.3 parts per million (ppm)

VI. RECOMMENDATIONS

1. Remove from service all outlets that had elevated lead, copper and/or iron present in the water.

2. A complete flushing of the hot water tank and the building hot water system should be performed.

3. After the flushing of the hot water system, FOH recommends follow up testing of these water outlets be performed. An initial and follow-up protocol should be utilized to determine if the lead, copper and/or iron contaminations are generated from the fixture itself or upstream within the system. This test can also be used to determine if a daily flushing regimen will control lead copper and/or iron contaminations of drinking water at this source.

ATTACHMENT A

LABORATORY ANALYTICAL REPORT

FOH ENVIRONMENTAL LABORATORY

536 S. CLARK STREET CHICAGO, IL 60605 PHONE: (312) 886-0413 FAX: (312) 886-0434

ANALYTICAL REPORT

Submitted To: USPHS/Federal Occupational Health
1301 Young Street, Suite 772
Dallas, TX 75202

Attention: Mr. Jamie Bryant, CIH

Submitted By: Ms. Michelle C. Stemmons

Reference Data: Lead, Copper and Iron

Sampling Site:	GSA: Abilene, TX
Sample Type:	Water
Method Reference:	EPA 200.9 and S/M 3111B, respectively
Project ID:	Project 13655
DFOH Lab Nos.:	TM-16-92055 through TM-16-92075
Date Received:	03/11/16
Data Analyzed:	03/14/16
Date Issued:	03/15/16

The water samples were preserved with concentrated nitric acid. The lead analysis was performed using Perkin Elmer 600 Aanalyst Furnace spectrophotometer (GFAAS). The copper and iron analysis were performed using a Perkin Elmer Aanalyst 200 Flame atomic absorption spectrometer (AAS).

S/M indicates that the method is from *Standard Methods for the Examination of Water and Wastewater*.

General Lab Comments:
All quality control criteria have been met.
* All samples received in condition acceptable for analysis unless otherwise noted.
Sample results have not been corrected for contamination based on the field blank or other analytical blank unless otherwise noted.

Analytical results are given in the enclosed table. If you have any questions about these results, feel free to phone the Laboratory at (312) 886-0413.

Ms. Edna A. Bautista
Analyst

Ms. Michelle C. Stemmons
Laboratory Director

FOH ENVIRONMENTAL LABORATORY

536 S. CLARK STREET CHICAGO, IL 60605 PHONE: (312) 886-0413 FAX: (312) 886-0434

LEAD, COPPER and IRON in WATER RESULTS

SAMPLE NUMBER*	LABORATORY NUMBER	LEAD CONCENTRATION (ppb)	COPPER CONCENTRATION (ppm)	IRON CONCENTRATION (ppm)
001-01W	TM-16-92055	**18.7****	0.500	<0.100
001-02W	TM-16-92056	**59.9****	**1.84****	**3.29****
001-03W	TM-16-92057	**75.5****	**1.95****	**3.94****
001-04W	TM-16-92058	**135****	**1.82****	**3.18****
001-05W	TM-16-92059	3.97	1.21	**0.82****
001-06W	TM-16-92060	5.67	0.044	<0.100
001-07W	TM-16-92061	**33.0****	**1.72****	**2.09****
001-08W	TM-16-92062	<1.00	**12.3****	**16.9****
001-09W	TM-16-92063	<1.00	<0.020	<0.100
001-10W	TM-16-92064	**94.6****	0.387	**2.07****
001-11W	TM-16-92065	**74.0****	1.28	**2.67****
001-12W	TM-16-92066	1.05	0.346	<0.100
001-13W	TM-16-92067	8.64	0.068	<0.100
001-14W	TM-16-92068	**408****	**3.77****	**2.65****
001-15W	TM-16-92069	12.4	0.657	<0.100
001-16W	TM-16-92070	**74.2****	**1.90****	**3.69****
001-17W	TM-16-92071	8.11	0.833	<0.100
001-18W	TM-16-92072	8.89	0.472	<0.100
001-19W	TM-16-92073	**31.9****	1.04	**0.98****
001-20W	TM-16-92074	11.5	0.043	<0.100
001-21W	TM-16-92075	**39.0****	0.637	**0.66****

*All samples received in condition acceptable for analysis.

**** Indicates that the samples are at or above the Action Level as established by the Environmental Protection Agency (EPA).**

ANALYTE	STANDARD	METHOD DETECTION LIMIT (MDL)	REPORTING LIMIT (RL)	METHOD
Lead	15 ppb	0.50 ppb	1.00 ppb	EPA 200.9
Copper	1.3 ppm	0.010 ppm	0.020 ppm	S/M 3111B
Iron	0.3 ppm	0.04 ppm	0.10 ppm	S/M 3111B

Ms. Edna A. Bautista
Analyst

US PUBLIC HEALTH SERVICE, FEDERAL OCCUPATIONAL HEALTH CHAIN-OF-CUSTODY / FIELD DATA SHEET

Environmental Laboratory
536 S. Clark Street South, Suite 714
Chicago, IL 60605-1521
Tel: (312)-886-0413 Fax: (312)-886-0434
Attn: Michelle Stemmons

Contact Information
Name: Jamie Bryant
Address: 1301 Young St. Suite 772
Dallas, Tx 75202
Phone/Fax: 214/767-3577 214-767-0002
Email: jamie.bryant@foh.hhs.gov

PROJECT REFERENCE

Agreement No.:	A 191000
Statement of Work No.:	S 197203
Project No:	P 197204
Agency Proj. Manager	GSA
Location (City, State):	U.S. Post Office/Courthouse 341 Pine St Abilene, Tx

For Lab Use Only
Project /Report #: 13655
Due Date: 3/17/16
Samples Received Chilled? YES NO (circle one)
Conditions on Receipt with Name & Date 1 of 2
Rev. 07/2010

Water Sample Code
Container Types: P-Plastic, G-Glass, V-VOC
Preservatives: A-None, B-H_2SO_4, C-HNO_3, D-NaOH

Turn Around Time
STD- Standard
3D- Three Day Rush@
WH Weekend/Holiday*

Analysis Requested: LEAD, COPPER, IRON

Sample ID #	Type[1]	Media[2]	Collected Date	Collected Time	Sample Location / Description	Air Flow (LPM)	Air Time (Min.)	Air Volume (Liters)	Wipe Area (ft²)	Water Volume (Liters)	Water Code[3]	Turn Around Time[4]	Lab ID #	LEAD	COPPER	IRON
001-01W	2	n/a	3/10/16	7:30	2nd Floor / Drinking fountain					1	P	STD	TM-16-92055	X	X	X
001-02W	2	n/a	3/10/16	7:32	2nd Floor handicap RR sink HOT/COLD					1	P	STD	92056	X	X	X
001-03W	2	n/a	3/10/16	7:33	2nd Floor Womens RR Hot water					1	P	STD	92057	X	X	X
001-04W	2	n/a	3/10/16	7:34	2nd Floor Womens RR Big sink HOT water					1	P	STD	92058	X	X	X
001-05W	2	n/a	3/10/16	7:40	2nd Floor Clerk office RR HOT					1	P	STD	92059	X	X	X
001-06W	2	n/a	3/10/16	7:42	2nd Floor Clerk office RR COLD					1	P	STD	92060	X	X	X
001-07W	2	n/a	3/10/16	7:44	2nd Floor 2324 Mens RR (L) sink HOT					1	P	STD	92061	X	X	X
001-08W	2	n/a	3/10/16	7:47	2nd Floor 2313 Judges office Kitchen sink HOT					1	P	STD	92062	X	X	X
001-09W	2	n/a	3/10/16	7:50	2nd Floor 2313 Kitchen disp. Water refrigerator					1	P	STD	92063	X	X	X
001-10W	2	n/a	3/10/16	7:55	3rd Floor Jury room water fountain					1	P	STD	92064	X	X	X
001-11W	2	n/a	3/10/16	7:59	3rd Floor Jury rm RR HOT water (R) sink					1	P	STD	92065	X	X	X
001-12W	2	n/a	3/10/16	8:07	1st Post Office water fountain work room					1	P	STD	92066	X	X	X
001-13W	2	n/a	3/10/16	8:10	1st P.O. file room sink COLD					1	P	STD	92067	X	X	X

Sample Type Codes[1]: 1-Air 2-Water 3-Paint 4-Soil 5-Dust 6-Bulk 7-Wipe 8 - Other

Sample Media Codes[2]: 1-Charcoal 2-Matched Weight, 0.8um 3-PVC filter 4-M CE 0.8 um , 37 mm 5 -Ghost Wipes™ 6. Passive badge 7. Other

Relinquished By	Date & Time	Received By	Date & Time
[signature]	3/10/16 10:00AM	[signature]	3/11/16

COMMENTS:

* Applied to organic and inorganic analysis in cases of an emergency only. @ Applied to inorganic and organic samples, SD: Applied to organic and inorganic samples 7-10 business days.

US PUBLIC HEALTH SERVICE, FEDERAL OCCUPATIONAL HEALTH CHAIN-OF-CUSTODY / FIELD DATA SHEET

Environmental Laboratory
536 S. Clark Street South, Suite 714
Chicago, IL 60605-1521
Tel: (312)-886-0413 Fax: (312)-886-0434
Attn: Michelle Stemmons

Project Reference

Agreement No.:	A 191000
Statement of Work No.:	S 197203
Project No:	P 197204
Agency	GSA
Proj. Manager	
Location (City, State):	US Post Office/Courthouse 341 Pine St. Abilene, Tx

For Lab Use Only
Project /Report #: 13655
Due Date: 3/17/16
Samples Received Chilled? YES NO (circle one)
Conditions on Receipt with Name & Date
2 of 2
Rev. 07/2010

Contact Information
Name: Jamie Bryant
Address: 1301 Young St. Suite 772
Dallas, Tx 75202
Phone/Fax: 214.767.3577 / 214.767.0002
Email: jamie.bryant@foh.hhs.gov

Water Analysis Only
Container Types: P-Plastic, G-Glass, V-VOC
Preservatives: A-None, B-H_2SO_4, C-HNO_3, D-NaOH

Turnaround Time Only
STD- Standard
3D- Three Day Rush@
WH Weekend/Holiday*

Analyte Requested

Sample ID #	Type[1]	Media[2]	Collected Date	Collected Time	Sample Location / Description	Air Flow (LPM)	Air Time (Min.)	Air Volume (Liters)	Wipe Area (ft²)	Water Volume (Liters)	Water Code[3]	Turn Around Time[4]	Lab ID #	LEAD	COPPER	IRON			
001-14W	2	n/a	3/10/16	8:11	1st P.O. Womens RR off HOT flerm					1	P	STD	TM-16-92068	X	X	X			
001-15W	2	n/a	3/10/16	8:12	1st P.O. water fountain office area					1	P	STD	92069	X	X	X			
001-16W	2	n/a	3/10/16	8:14	1st RM1005 RR HOT water					1	P	STD	92070	X	X	X			
001-17W	2	n/a	3/10/16	8:15	Basement P.O. break room water fountain					1	P	STD	92071	X	X	X			
001-18W	2	n/a	3/10/16	8:17	Bmt P.O. Break room SINK					1	P	STD	92072	X	X	X			
001-19W	2	n/a	3/10/16	8:20	Bmt Mens RR 1st sink HOT					1	P	STD	92073	X	X	X			
001-20W	2	n/a	3/10/16	8:22	Bmt Womens RR L sink COLD					1	P	STD	92074	X	X	X			
001-021W	2	n/a	3/10/16	8:35	Outside water faucet					1	P	STD	92075	X	X	X			
										1	P								
										1	P								
										1	P								

Sample Type Codes[1]
1-Air 2-Water 3-Paint 4-Soil 5-Dust
6-Bulk 7-Wipe 8 - Other

Sample Media Codes
1-Charcoal 2-Matched Weight, 0.8um
3-PVC filter 4-M CE 0.8 um , 37 mm
5 -Ghost Wipes™ 6. Passive badge
7. Other

Relinquished By	Date & Time	Received By	Date & Time
[signature]	3/10/16 10:00AM	Karen Hodge	3/11/16

COMMENTS:

* Applied to organic and inorganic analysis in cases of an emergency only. @ Applied to inorganic and organic samples, SD: Applied to organic and inorganic samples 7-10 business days.