



## 2023 Lead and Copper Rule Sampling Plan

### Sample Pool and Selection

The District of Columbia Water and Sewer Authority (DC Water) will collect samples from at least 100 Tier 1 sites in two semester periods—January to June 2023 and July to December 2023. Sample sites meeting Tier 1 criteria under 40 CFR §141.86(a)(3)(ii) as single family structures that are served by a lead service line based on DC Water’s customer information and service line inventory records.

DC Water maintains a LCR “Sample Pool” of sites listed in Table 1. DC Water also receives requests from our customers to sample their tap water for lead. DC Water will include these customer-requested sites in the LCR sampling program if they meet the Tier 1 criteria: single family structures having a full or partial lead service line based on DC Water’s customer information and service line inventory records; agree to participate in the program; can collect a valid LCR sample; and are not already in the Sample Pool.

DC Water will attempt to send sample bottles to all sites in Table 1 and to the approved customer-requested sites until at least the minimum number of valid compliance samples has been collected. In the event that the number of valid compliance samples is insufficient to meet the LCR monitoring requirements, DC Water will add sites by random selection. The randomly selected sites will have full lead service lines, be a single family structure according to DC Water customer information and service line inventory records, and the customer agrees to participate in the LCR sampling program. DC Water will retain all randomly selected sites that provide samples (homes that do not return samples will not be included in the next semester’s Sample Pool).

DC Water will schedule and distribute samples to Sample Pool sites in the order listed in Table 1. DC Water may sample locations out-of-order if the first sample submitted was rejected (refer to Criteria for Sample Acceptance section) and the customer requests a second sample kit. DC Water may also sample out-of-order if the customer contacts DC Water and requests a different sample date. DC Water will not leave a sample kit under the following conditions:

- Abandoned residence
- Partial lead service line replacement within 60 days of sample kit drop-off;
- Customer requests not to participate;
- Tier 1 status is suspect (e.g. possible condo conversion); or
- Site is undergoing rehabilitation.

DC Water will investigate to determine if the site should remain in the Sample Pool; however, the site will not be sampled until the following compliance period unless requested by the customer.

## Sample Collection

DC Water will collect samples between January and December 2023 (first monitoring period is January to June and the second is July to December). The homeowner will collect first and second draw samples following the instructions in the sample kit and complete the sampling form (or chain of custody; reference Appendix A). The samples will be sent to a certified laboratory, currently the Washington Aqueduct (WA), to analyze the lead, copper, and iron concentrations in the samples using Environmental Protection Agency (EPA) Method 200.8.

## Criteria for Acceptance as a Valid Compliance Sample

DC Water will forward samples to WA using the following criteria:

1. Bottles:
  - First draw sample bottle is full; and
  - First draw sample bottle is identified.
2. Sampling form or bottles must have the following information:
  - Address on bottles match address on sampling form;
  - Site is a single family structure (i.e., answered “No” to having multiple dwelling units);
  - Date and time stagnation started;
  - Date and time sample collected;
  - Stagnation time at least 6 hours;
  - No leaks or water use during stagnation; and
  - If the customer has a water treatment unit installed, they must indicate that the system was bypassed for sampling.
3. DC Water receives samples past the end of the monitoring period (i.e., June 30 or December 31) and has enough valid samples for compliance.
  - DC Water might not have sufficient time to confirm the samples are valid, analyze, and report the data prior to the required reporting date of July 10<sup>th</sup> and January 10<sup>th</sup>. If we choose to reject the samples for LCR analyses, then DC Water will contact the customer and request they collect the samples again for the new monitoring period.

DC Water will attempt to obtain any missing information from incomplete sampling forms by contacting the customer. DC Water will note the customer contact by logging the customer’s name, the date, questions asked, customer’s responses, and the initials of the DC Water staff person. DC Water will transfer the missing information onto the sampling form.

## Sample Invalidation

DC Water will request invalidation from EPA Region III for samples analyzed by WA laboratory based on 40 CFR §141.86(f):

- The laboratory establishes that improper analysis caused erroneous results;
- The sample was taken from a site that did not meet Tier 1 criteria;
- The sample or sample container was damaged during transit; or
- There is substantial reason to suspect that the sample was subject to tampering.

DC Water will also request invalidation of samples analyzed by the WA laboratory if we learn that the sampling protocol was not followed and therefore may have affected the results.

### **Notifying Customers of Results**

In accordance with 40 CFR §141.85(d), DC Water will mail sample results to the homeowner along with lead advisory information within 30 days of receiving sample results from the laboratory. Appendix B contains the template letter used to send residents their results, which includes the required information in accordance with 40 CFR § 141.85(d)(3).

DC Water will provide customers with written notification if their copper test results exceed the copper action level.

### **Sample Pool Revisions (Tables 2 and 3)**

Sites will be removed from the Sample Pool under the following conditions:

- Site does not meet Tier 1 criteria (e.g. site is not a single family structure; condo conversion, no lead service line);
- Customer notifies DC Water that they do not want to participate;
- Customer cannot provide a valid sample (e.g. water treatment unit cannot be bypassed); or
- For the last four consecutive sampling events of the site (i.e., sample kit dropped at the site), valid compliance samples were not returned from the site.
- Customer requested to participate in program and did not return valid samples in their first sampling semester.

DC Water will assess the geographic distribution of the sites in the Sample Pool to ensure that they are representative of the residential lead service line distribution in the District. DC Water will select new sites to improve geographic distribution if the sites are not representative of the lead service line distribution.

### **Reporting Format**

The lead and copper monitoring report will be submitted to EPA Region III in electronic format by July 10, 2023 and January 10, 2024, which are 10 days following the end of the LCR monitoring compliance periods. The report format will comply with 40 CFR §141.90. DC Water will report lead results as “0.0000” that have been reported by the WA laboratory as non-detect (<0.0002 mg/L). DC Water will notify EPA Region III within 48 hours of determining that the 90<sup>th</sup> percentile lead or copper action level has been exceeded.

### **Optimal Corrosion Control Treatment Monitoring (OCCT)**

DC Water will monitor for the OCCT Water Quality Parameters (WQP) twice per calendar year at 10 sites as required by 40 CFR §141.87(e)(2)(i). In order to achieve seasonal variability, DC Water will collect samples quarterly at the 10 sites listed in Table 4. One set of 5 sites will be sampled in February and August and a second set of 5 sites will be sampled in May and November. The parameters monitored will be pH, dissolved orthophosphate, nitrite, and free ammonia. DC Water will report the WQP distribution system data by the 10<sup>th</sup> of the month following the end of the quarter (April, July, October, and January), which is 10 days following the end of the OCCT WQP monitoring compliance period. DC Water will also report entry point data collected by the Washington Aqueduct 10 days following the end of the LCR semester monitoring period.

**Table 1. January – June 2023 Sample Pool**

<b>No.</b>	<b>Address</b>	<b>Pipe Material</b>
1	1635 WEBSTER ST NW	Lead
2	1649 HARVARD ST NW	Lead
3	5404 39TH ST NW	Partial Lead
4	3030 44TH ST NW	Partial Lead
5	3301 BROWN St NW	Partial Lead
6	1808 KEARNY ST NE	Partial Lead
7	228 V ST NE	Lead
8	2007 37TH ST NW	Lead
9	1353 JEFFERSON ST NW	Partial Lead
10	728 FARRAGUT ST NW	Lead
11	1706 NEW JERSEY AVE NW	Lead
12	3206 38th St NW	Lead
13	4215 39th St NW	Partial Lead
14	4926 Glenbrook Rd NW	Partial Lead
15	702 9th St SE	Lead
16	1211 Carrollsburg Pl SW	Partial Lead
17	231 K St NE	Partial Lead
18	619 12th St NE	Lead
19	4418 14th St NE	Lead
20	1826 Jackson St NE	Lead
21	3211 Central Ave NE	Lead
22	905 Kent Pl NE	Lead
23	3036 P St NW	Partial Lead
24	10 S St NW	Lead
25	3727 T St NW	Lead
26	1620 Webster St NW	Lead
27	15 Milmarson Pl NW	Partial Lead
28	2923 Cathedral AVE NW	Partial Lead
29	1519 Olive St NE	Lead
30	36 Florida Ave NW	Partial Lead
31	1505 Buchanan St NW	Lead
32	1346 F St NE	Lead
33	3724 CHESAPEAKE ST NW	Partial Lead
34	313 10TH ST SE	Partial Lead
35	1420 INGRAHAM ST NW	Partial Lead
36	1020 INDEPENDENCE AVE SE	Lead
37	5223 KANSAS AVE NW	Partial Lead
38	744 9TH ST SE	Partial Lead
39	4425 14th St NE	Lead
40	2036 17TH ST NW	Lead

<b>No.</b>	<b>Address</b>	<b>Pipe Material</b>
41	4233 JENIFER ST NW	Partial Lead
42	414 DOUGLAS ST NE	Partial Lead
43	5600 NEBRASKA AVE NW	Lead
44	423 GALLATIN ST NW	Lead
45	1332 Ritchie PI NE	Partial Lead
46	3822 Albemarle St NW	Lead
47	3420 34th St NW	Lead
48	559 23rd PL NE	Lead
49	3629 Everett St NW	LEAD
50	132 11th St SE	LEAD
51	5019 16TH ST NW	LEAD
52	307 South Carolina Ave SE	LEAD
53	523 12th st NE	Partial Lead
54	1247 GIRARD ST NE	LEAD
55	3743 W ST NW	LEAD
56	5520 CAROLINA PL NW	LEAD
57	338 14th St SE	Lead
58	511 Tennessee Ave NE	LEAD
59	1354 D St SE	Partial Lead
60	2717 11th St NW	Partial Lead
61	3074 Clinton St NE	Lead
62	1648 ARGONNE PL NW	Lead
63	2717 O ST NW	Lead
64	4536 Lowell St NW	Lead
65	1115 C St NE	Lead
66	408 16th St SE	Lead
67	3567 Holmead PI NW	Lead
68	305 7th St NE	Lead
69	525 9TH ST SE	Lead
70	5427 Nevada Ave NW	Lead
71	1408 DECATUR ST NW	Lead
72	423 Shepherd St NW	Lead
73	2414 Observatory PI NW	Lead
74	317 TENNESSEE AVE NE	Lead
75	912 15TH ST SE	Lead
76	114 MADISON ST NW	Lead
77	219 Underwood St NW	Lead
78	15 14th St SE	Lead
79	5700 SHERIER PL NW	Partial Lead
80	3114 15th St NE	Lead
81	1620 Underwood St NW	Lead
82	617 FERN PL NW	Lead
83	3112 PARK PL NW	Lead

<b>No.</b>	<b>Address</b>	<b>Pipe Material</b>
84	3721 PORTER ST NW	Lead
85	1120 C St NE	Lead
86	18 Milmarson Pl NW	Lead
87	419 12th St SE	Lead
88	4312 14th St NW	Lead
89	521 5th St NE	Lead
90	615 Webster St NW	Lead
91	3617 17th St NE	Lead
92	1417 Crittenden St NW	Lead
93	120 Kentucky Ave SE	Lead
94	519 Rittenhouse St NW	Lead
95	2326 20th St NW	Lead
96	5010 Klinge St NW	Lead
97	1310 Locust Rd NW	Lead
98	6611 1st St NW	Lead
99	813 E St SE	Lead
100	3206 5th St SE	Lead
101	827 9th St NE	Lead
102	2010 Klinge Rd NW	Lead
103	5242 Colorado Ave NW	Lead
104	6811 Laurel St NW	Lead
105	4428 9th St NW	Lead
106	1254 Hamlin St NE	Lead
107	311 Varnum St NW	Lead
108	318 14TH PL NE	Lead
109	1416 Montague St NW	Lead
110	7516 14th St NW	Lead
111	1627 Newton St NW	Lead
112	4221 4th St NW	Lead
113	4507 Arkansas Ave NW	Lead
114	521 9th St SE	Lead
115	3107 Cathedral Ave NW	Lead
116	5309 14th St NW	Lead
117	1621 C St SE	Lead
118	1411 Delafield Pl NW	Lead
119	3608 17th St NE	Lead
120	1225 C St SE	Lead
121	811 L St NE	Lead
122	48 Channing St NW	Lead
123	1123 Michigan Ave NE	Lead
124	105 14th St NE	Lead
125	22 Bates St NW	Lead
126	904 Delafield Pl NW	Lead

<b>No.</b>	<b>Address</b>	<b>Pipe Material</b>
127	3126 38th St NW	Lead
128	517 5th St NE	Lead
129	1148 Abbey Pl NE	Lead
130	3511 IDAHO AVE NW	Lead
131	4710 8th St NW	Lead
132	232 33rd St NE	Lead
133	2416 I St NW	Lead
134	5603 14th St NW	lead
135	1413 West Virginia Ave NE	lead
136	424 Farragut St NW	Lead
137	1721 Webster St NW	Lead

**Table 2. Sites Added From the Previous Sample Pool (2022 July – December)**

<b>No</b>	<b>Address</b>
1	1148 Abbey Pl NE
2	3511 IDAHO AVE NW
3	4710 8th St NW
4	232 33rd St NE
5	2416 I St NW
6	5603 14th St NW
7	1413 West Virginia Ave NE
8	424 Farragut St NW
9	3106 Cathedral Ave NW
10	5121 Cathedral Ave NW
11	904 Delafield Pl NW
12	3126 38th St NW
13	517 5th St NE
14	18 Milmarson Pl NW
15	1721 Webster St NW

Notes for Table 2:

<sup>1</sup> Sites are added when a customer contacts DC Water to request a lead test, and agree to participate in the Lead and Copper Monitoring Program. DC Water confirms that the address met Tier 1 criteria under 40 CFR 141.86(a)(3)(ii) as single family structure with a full lead service line based on DC Water’s customer information and service line inventory records. The site is not retained if the customer does not provide valid samples.

<sup>2</sup>All addresses were added during the July – December 2022 monitoring period, except 1721 Webster St NW, which was added in January 2023.



**Table 3. Sites Removed From the Previous Sample Pool (2022 July – December)**

No	Address	Reason for Removal from LCR Monitoring Program
1	104 7th ST NE	Copper and galvanized iron service line replaced on July 7, 2022
2	1049 Quebec PI NW	Declined to continue participation in program
3	1112 BUCHANAN ST NW	Full lead service line replacement on Sept 8, 2022
4	114 4th St NE	Full lead service line replacement on Dec 21, 2022
5	1453 S St NW	Customer did not return samples <sup>2</sup>
6	1528 Upshur St NW	Full lead service line replacement on Aug 22, 2022
7	1625 Webster St NW	Customer did not return samples <sup>2</sup>
8	1820 6th St NW	multi-family residence
9	2111 2nd St NW	Excavation on Aug 16, 2022 revealed copper pipe
10	2435 33RD ST SE	Full lead service line replacement on Nov 22, 2022
11	2913 Brandywine St NW	Full lead service line replacement on Oct 18, 2022
12	3004 Alabama Ave SE	Full lead service line replacement on Oct 20, 2022
13	3106 Cathedral Ave NW	Added in Jul-Dec 2022 sampling period but did not return valid samples <sup>1</sup>
14	3205 38TH ST NW	Customer did not return samples <sup>2</sup>
15	3309 35TH ST NW	Customer did not return samples <sup>2</sup>
16	3416 9th St NE	Declined to continue participation in program
17	3907 13th St NW	Full lead service line replacement on May 3, 2022
18	4118 Emery PI NW	Declined to continue participation in program
19	412 BRANDYWINE ST SE	Full lead service line replacement on Ju1 25, 2022
20	450 Newton PI NW	Full lead service line replacement on Jun 17, 2022
21	4818 8th ST NW	Full lead service line replacement on Sept 30, 2022
22	503 Alabama Ave SE	Full lead service line replacement on June 2, 2022
23	5121 Cathedral Ave NW	Full lead service line replacement on Dec 12, 2022
24	607 Lamont St NW	Full lead service line replacement on Aug 31, 2022
25	633 Columbia Rd NW	Excavation on Oct 21, 2022 revealed copper pipe
26	804 Delafield PI NW	Full lead service line replacement on Aug 18, 2022
27	904 Crittenden St NW	Full lead service line replacement on July 28, 2022

Notes for Table 3:

<sup>1</sup> Sites are added when a customer contacts DC Water to request a lead test, and agree to participate in the Lead and Copper Monitoring Program. DC Water confirms that the address met Tier 1 criteria under 40 CFR 141.86(a)(3)(ii) as single family structures that are served by a lead service line based on DC Water's customer information and service line inventory records. The site is not retained if the customer does not provide valid samples.

<sup>2</sup>Customers that do not return valid samples for four consecutive LCR sampling events are removed from the Sample Pool.

**Table 4**  
**Sample Sites for OCCT**

	<b>Site ID</b>	<b>Location</b>	<b>Sample Month</b>
1	2H-3 BKJV	Truesdale Elementary School, 800 Ingraham St NW	Feb, Aug
2	3H-3 BKJV	St. Johns High School @ 27th & Military	Feb, Aug
3	A1H-5	BP Gas Station, 5207 Nannie Helen Burroughs Ave NE	Feb, Aug
4	1H-14	FH # 12, 2225 5 <sup>th</sup> St NE	Feb, Aug
5	4H-9	FH #20, 4300 Wisconsin Ave NW	Feb, Aug
6	A3H-6	Lee's Mini Market, 3853 Alabama Ave SE	May, Nov
7	L-4	Harbor Police Station, 550 water St SW	May, Nov
8	A2-H8	My 3 Sons Barber Shop, 3125 MLK Ave SE	May, Nov
9	L-27	Starbucks, 325 7 <sup>th</sup> St NW	May, Nov
10	3H-17	Home Care Medical Supplies, 5002 1 <sup>st</sup> St NW	May, Nov