

## 2021 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 2022 and July to December 2022. Sample sites meeting Tier 1 criteria under 40 CFR §141.86(a)(3)(ii) are single family structures with either full or partial lead service lines based on DC Water’s data.

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 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 2022 (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.

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 (Table 2)**

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, 2022 and January 10, 2023, 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 3. 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 2022 Sample Pool**

<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
1	1247 GIRARD ST NE	LEAD
2	1648 ARGONNE PL NW	Lead
3	511 Tennessee Ave NE	LEAD
4	338 14th St SE	Lead
5	3004 Alabama Ave SE	Lead
6	3074 Clinton St NE	Lead
7	2427 North Capitol St NE	Lead
8	921 Emerson St NW	Lead
9	559 23rd PL NE	Lead
10	3743 W ST NW	LEAD
11	1115 C St NE	Lead
12	1806 LAWRENCE ST NE	Lead
13	307 South Carolina Ave SE	LEAD
14	5019 16TH ST NW	LEAD
15	132 11th St SE	LEAD
16	5601 32ND ST NW	LEAD
17	106 V St NE	LEAD
18	617 FERN PL NW	Lead
19	5520 CAROLINA PL NW	LEAD
20	423 Shepherd St NW	Lead
21	1620 Underwood St NW	Lead
22	5242 Colorado Ave NW	Lead
23	1112 BUCHANAN ST NW	Lead
24	15 14th St SE	Lead
25	219 Underwood St NW	Lead
26	114 MADISON ST NW	Lead
27	912 15TH ST SE	Lead
28	2717 O ST NW	Lead
29	2414 Observatory Pl NW	Lead
30	4536 Lowell St NW	Lead
31	1408 DECATUR ST NW	Lead
32	5427 Nevada Ave NW	Lead
33	525 9TH ST SE	Lead
34	1402 MORSE ST NE	Lead
35	305 7th St NE	Lead
36	3567 Holmead Pl NW	Lead

No	Address	Pipe Material
37	408 16th St SE	Lead
38	3420 34th St NW	Lead
39	317 TENNESSEE AVE NE	Lead
40	1049 Quebec Pl NW	Lead
41	633 Columbia Rd NW	Lead
42	5309 14th St NW	Lead
43	3107 Cathedral Ave NW	Lead
44	521 9th St SE	Lead
45	4507 Arkansas Ave NW	Lead
46	5710 13th St NW	Lead
47	4221 4th St NW	Lead
48	3629 Everett St NW	LEAD
49	1627 Newton St NW	Lead
50	813 E St SE	Lead
51	7516 14th St NW	Lead
52	1416 Montague St NW	Lead
53	318 14TH PL NE	Lead
54	311 Varnum St NW	Lead
55	1254 Hamlin St NE	Lead
56	4428 9th St NW	Lead
57	6811 Laurel St NW	Lead
58	5213 Kansas Ave NW	Lead
59	3854 Beecher St NW	Lead
60	3822 Albemarle St NW	Lead
61	1417 Crittenden St NW	Lead
62	610 Roxboro Pl NW	Lead
63	503 Alabama Ave SE	Lead
64	3617 17th St NE	Lead
65	615 Webster St NW	Lead
66	521 5th St NE	Lead
67	6611 1st St NW	Lead
68	4312 14th St NW	Lead
69	607 Lamont St NW	Lead
70	1528 Upshur St NW	Lead
71	419 12th St SE	Lead
72	1625 Webster St NW	Lead
73	4118 Emery Pl NW	Lead
74	2010 Klinge Rd NW	Lead
75	827 9th St NE	Lead

<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
76	3206 5th St SE	Lead
77	1630 NEW JERSEY AVE NW	Lead
78	904 Crittenden St NW	Lead
79	909 L ST NE	Lead
80	2435 33RD ST SE	Lead
81	1519 Olive St NE	Lead
82	228 V ST NE	Lead
83	2007 37TH ST NW	Lead
84	1020 INDEPENDENCE AVE SE	Lead
85	728 FARRAGUT ST NW	Lead
86	1706 NEW JERSEY AVE NW	Lead
87	804 Delafield Pl NW	Lead
88	522 4TH ST SE	Lead
89	3112 PARK PL NW	Lead
90	3114 15th St NE	Lead
91	3206 38th St NW	Lead
92	412 BRANDYWINE ST SE	Lead
93	3309 35TH ST NW	Lead
94	619 12th St NE	Lead
95	450 Newton Pl NW	Lead
96	4418 14th St NE	Lead
97	1826 Jackson St NE	Lead
98	3211 Central Ave NE	Lead
99	905 Kent Pl NE	Lead
100	1346 F St NE	Lead
101	10 S St NW	Lead
102	3727 T St NW	Lead
103	1620 Webster St NW	Lead
104	2913 Brandywine St NW	Lead
105	1505 Buchanan St NW	Lead
106	702 9th St SE	Lead
107	1310 Locust Rd NW	Lead
108	3717 PORTER ST NW	Lead
109	3721 PORTER ST NW	Lead
110	617 C ST NE	Lead
111	1809 Monroe St NE	Lead
112	2032 37TH ST NW	Lead
113	711 32nd St SE	Lead
114	1120 C St NE	Lead

<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
115	104 7th ST NE	Lead
116	120 Kentucky Ave SE	Lead
117	2111 2nd St NW	Lead
118	519 Rittenhouse St NW	Lead
119	2326 20th St NW	Lead
120	5010 Klinge St NW	Lead
121	4425 14th St NE	Lead
122	3916 KANSAS AVE NW	Lead
123	423 GALLATIN ST NW	Lead
124	821 E ST SE	Lead
125	1012 DOUGLAS ST NE	Lead
126	3205 38TH ST NW	Lead
127	2036 17TH ST NW	Lead
128	1635 WEBSTER ST NW	Lead
129	4011 13TH ST NW	Lead
130	1649 HARVARD ST NW	Lead
131	4014 Grant St NE	Lead
132	5600 NEBRASKA AVE NW	Lead
133	1420 INGRAHAM ST NW	Partial Lead
134	3724 CHESAPEAKE ST NW	Partial Lead
135	4233 JENIFER ST NW	Partial Lead
136	5223 KANSAS AVE NW	Partial Lead
137	313 10TH ST SE	Partial Lead
138	414 DOUGLAS ST NE	Partial Lead
139	744 9TH ST SE	Partial Lead
140	36 Florida Ave NW	Partial Lead
141	523 12th st NE	Partial Lead
142	5337 BROAD BRANCH RD NW	Partial Lead
143	5700 SHERIER PL NW	Partial Lead
144	6213 7TH ST NW	Partial Lead
145	4818 8th ST NW	Partial Lead
146	5404 39TH ST NW	Partial Lead
147	3030 44TH ST NW	Partial Lead
148	3301 BROWN St NW	Partial Lead
149	1808 KEARNY ST NE	Partial Lead
150	2717 11th St NW	Partial Lead
151	4926 Glenbrook Rd NW	Partial Lead
152	1353 JEFFERSON ST NW	Partial Lead
153	2923 Cathedral AVE NW	Partial Lead



<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
154	3907 13th St NW	Partial Lead
155	4215 39th St NW	Partial Lead
156	1211 Carrollsburg Pl SW	Partial Lead
157	231 K St NE	Partial Lead
158	1332 Ritchie Pl NE	Partial Lead
159	3416 9th St NE	Partial Lead
160	3036 P St NW	Partial Lead
161	1453 S St NW	Partial Lead
162	15 Milmarson Pl NW	Partial Lead
163	1354 D St SE	Partial Lead

**Table 2. Sites Added and Removed  
From the Previous Sample Pool (2021 July – December)**

<b>Address</b>	<b>Change and Description</b>
1049 Quebec Pl NW	Added Jul-Dec 2021
1254 Hamlin St NE	Added Jul-Dec 2021
1416 Montague St NW	Added Jul-Dec 2021
1627 Newton St NW	Added Jul-Dec 2021
1809 Monroe St NE	Added Jul-Dec 2021
1858 Park Rd NW	Removed; customer reported full LSR in past but could not provide documentation, did not change inventory of pipe material
2010 Klinge Rd NW	Added Jul-Dec 2021
205 Peabody St NW	Added Jul-Dec 2021; did not return samples so not retained in the Sample Pool
2325 WYOMING AVE NW	Removed; full LSR 11/22/2021
2411 OBSERVATORY PL NW	Added Jul-Dec 2021; full LSR 12/23/2021 - removed
3107 Cathedral Ave NW	Added Jul-Dec 2021
311 Varnum St NW	Added Jul-Dec 2021
316 12th St NE	Added Jul-Dec 2021; full LSR 12/18/2021 - removed
318 14TH PL NE	Added Jul-Dec 2021
324 Douglas St NE	Removed; full LSR 12/6/21
3245 38th St NW	Declined to participate in program
333 17th St NE	Added Jul-Dec 2021; full LSR 9/24/2021 - removed
3615 Albemarle St NW	Added Jul-Dec 2021; full LSR 11/9/2021 - removed
3846 Beecher St NW	Added Jul-Dec 2021; full LSR 10/4/2021 - removed
3850 Beecher St NW	Added Jul-Dec 2021; excavation 12/2/2021 revealed full copper service line - removed
4215 Illinois Ave NW	Declined to participate in program
4221 4th St NW	Added Jul-Dec 2021
4428 9th St NW	Added Jul-Dec 2021
4507 Arkansas Ave NW	Added Jul-Dec 2021
4520 Illinois Ave NW	Removed; full LSR 9/10/2021
521 9th St SE	Added Jul-Dec 2021
5213 Kansas Ave NW	Added Jul-Dec 2021
5242 Colorado Ave NW	Added Jul-Dec 2021
5309 14th St NW	Added Jul-Dec 2021
5510 Kansas Ave NW	Removed; full LSR 9/13/2021
5710 13th St NW	Added Jul-Dec 2021
5923 33rd St NW	Declined to participate in program
633 Columbia Rd NW	Added 1/5/2022
6811 Laurel St NW	Added Jul-Dec 2021

Address	Change and Description
728 Farragut St NW	Added Jul-Dec 2021
7516 14th St NW	Added Jul-Dec 2021
816 9th St NE	Added Jul-Dec 2021; full LSR 11/30/2021 - removed
909 L ST NE	Added Jul-Dec 2021

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>Customers that do not return valid samples for four consecutive LCR sampling events are removed from the Sample Pool (none this semester).

**Table 3**  
**Sample Sites for OCCT**

	Site ID	Location	Sample Month
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-14	Spicy Delight, 308 Carroll St NW	May, Nov