



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 2021 and July to December 2021. 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 2021 (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, 2020 and January 10, 2021, 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 90th 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 10th 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 2021 Sample Pool

No	Address	Pipe Material
1	3407 ORDWAY ST NW	LEAD
2	4529 Douglas St NE	Lead
3	3004 Alabama Ave SE	Lead
4	324 Douglas St NE	Lead
5	3074 Clinton St NE	Lead
6	2427 North Capitol St NE	Lead
7	307 South Carolina Ave SE	LEAD
8	921 Emerson St NW	Lead
9	3245 38th St NW	Lead
10	3213 OLIVER ST NW	LEAD
11	3011 Warder St NW	LEAD
12	5520 CAROLINA PL NW	LEAD
13	6806 LAUREL ST NW	LEAD
14	3743 W ST NW	LEAD
15	1247 GIRARD ST NE	LEAD
16	3670 Park Pl NW	LEAD
17	1220 Linden Pl NE	Lead
18	4011 13TH ST NW	Lead
19	4703 Macarthur Blvd NW	Lead
20	3727 T St NW	Lead
21	10 S St NW	Lead
22	5731 3rd Pl NW	Lead
23	912 Emerson St NW	Lead
24	2913 Brandywine St NW	Lead
25	5923 33rd St NW	Lead
26	1519 Olive St NE	Lead
27	905 Kent Pl NE	Lead
28	3211 Central Ave NE	Lead
29	1826 Jackson St NE	Lead
30	4418 14th St NE	Lead
31	619 12th St NE	Lead
32	702 9th St SE	Lead
33	3547 16th St NW	Lead
34	1020 INDEPENDENCE AVE SE	Lead
35	2032 37TH ST NW	Lead
36	4014 Grant St NE	Lead
37	313 5TH ST NE	Lead
38	3916 KANSAS AVE NW	Lead
39	4425 14th St NE	Lead
40	1620 Webster St NW	Lead
41	502 A ST SE	Lead

No	Address	Pipe Material
42	1703 D St NE	Lead
43	522 4TH ST SE	Lead
44	412 BRANDYWINE ST SE	Lead
45	5312 ILLINOIS AVE NW	Lead
46	450 Newton Pl NW	Lead
47	1346 F St NE	Lead
48	1505 Buchanan St NW	Lead
49	3309 35TH ST NW	Lead
50	3838 BEECHER ST NW	Lead
51	5122 7TH ST NW	Lead
52	3920 5TH ST NW	Lead
53	5600 NEBRASKA AVE NW	Lead
54	1425 VARNUM ST NW	Lead
55	3205 38TH ST NW	Lead
56	1012 DOUGLAS ST NE	Lead
57	821 E ST SE	Lead
58	423 GALLATIN ST NW	Lead
59	543 TENNESSEE AVE NE	Lead
60	3307 Woodley RD NW	Lead
61	1326 G ST SE	Lead
62	423 Shepherd St NW	Lead
63	1408 DECATUR ST NW	Lead
64	5427 Nevada Ave NW	Lead
65	525 9TH ST SE	Lead
66	1402 MORSE ST NE	Lead
67	1341 GALLATIN ST NW	Lead
68	317 TENNESSEE AVE NE	Lead
69	3567 Holmead Pl NW	Lead
70	912 15TH ST SE	Lead
71	408 16th St SE	Lead
72	1829 Monroe St NE	Lead
73	1115 C St NE	Lead
74	4536 Lowell St NW	Lead
75	2717 O ST NW	Lead
76	1648 ARGONNE PL NW	Lead
77	1649 HARVARD ST NW	Lead
78	305 7th St NE	Lead
79	617 FERN PL NW	Lead
80	322 TENNESSEE AVE NE	Lead
81	1635 WEBSTER ST NW	Lead
82	104 7th ST NE	Lead
83	1858 Park Rd NW	Lead
84	711 32nd St SE	Lead

No	Address	Pipe Material
85	617 C ST NE	Lead
86	3721 PORTER ST NW	Lead
87	2414 Observatory Pl NW	Lead
88	3112 PARK PL NW	Lead
89	511 Tennessee Ave NE	LEAD
90	1630 NEW JERSEY AVE NW	Lead
91	1620 Underwood St NW	Lead
92	3114 15th St NE	Lead
93	1112 BUCHANAN ST NW	Lead
94	15 14th St SE	Lead
95	219 Underwood St NW	Lead
96	114 MADISON ST NW	Lead
97	3717 PORTER ST NW	Lead
98	3822 Albemarle St NW	Lead
99	1823 Monroe St NE	Lead
100	5019 16TH ST NW	LEAD
101	132 11th St SE	LEAD
102	5601 32ND ST NW	LEAD
103	1100 EAST CAPITOL ST NE	Lead
104	106 V St NE	LEAD
105	3629 Everett St NW	LEAD
106	1123 BUCHANAN ST NW	LEAD
107	3420 34th St NW	Lead
108	1806 LAWRENCE ST NE	Lead
109	904 Crittenden St NW	Lead
110	4312 14th St NW	Lead
111	3854 Beecher St NW	Lead
112	1528 Upshur St NW	Lead
113	419 12th St SE	Lead
114	1625 Webster St NW	Lead
115	4118 Emery Pl NW	Lead
116	559 23rd Pl NE	Lead
117	3928 HUNTINGTON ST NW	Lead
118	338 14th St SE	Lead
119	2435 33RD ST SE	Lead
120	228 V ST NE	Lead
121	2007 37TH ST NW	Lead
122	1706 NEW JERSEY AVE NW	Lead
123	804 Delafield Pl NW	Lead
124	3206 38th St NW	Lead
125	3710 Huntington St NW	Lead
126	1529 27TH ST NW	Partial Lead
127	231 K St NE	Partial Lead

No	Address	Pipe Material
128	1437 Ives Pl SE	Partial Lead
129	1420 INGRAHAM ST NW	Partial Lead
130	2325 WYOMING AVE NW	Partial Lead
131	1211 Carrollsburg Pl SW	Partial Lead
132	5337 BROAD BRANCH RD NW	Partial Lead
133	5223 KANSAS AVE NW	Partial Lead
134	4607 5th St NW	Partial Lead
135	4215 39th St NW	Partial Lead
136	722 5th St NE	Partial Lead
137	1332 Ritchie Pl NE	Partial Lead
138	3030 44TH ST NW	Partial Lead
139	4233 JENIFER ST NW	Partial Lead
140	4002 ILLINOIS AVE NW	Partial Lead
141	6213 7TH ST NW	Partial Lead
142	4818 8th ST NW	Partial Lead
143	5404 39TH ST NW	Partial Lead
144	414 DOUGLAS ST NE	Partial Lead
145	744 9TH ST SE	Partial Lead
146	15 Milmarson Pl NW	Partial Lead
147	1353 JEFFERSON ST NW	Partial Lead
148	1412 S St NW	Partial Lead
149	3917 8th St NW	Partial Lead
150	5700 SHERIER PL NW	Partial Lead
151	1808 KEARNY ST NE	Partial Lead
152	2717 11th St NW	Partial Lead
153	3301 BROWN St NW	Partial Lead
154	1354 D St SE	Partial Lead
155	313 10TH ST SE	Partial Lead
156	1453 S St NW	Partial Lead
157	36 Florida Ave NW	Partial Lead
158	2923 Cathedral AVE NW	Partial Lead
159	3907 13th St NW	Partial Lead
160	4926 Glenbrook Rd NW	Partial Lead
161	3036 P St NW	Partial Lead
162	3416 9th St NE	Partial Lead
163	2408 2nd St NE	Partial Lead
164	3724 CHESAPEAKE ST NW	Partial Lead
165	523 12th st NE	Partial Lead
166	4707 GEORGIA AVE NW	Partial Lead

**Table 2. Sites Added, Removed, and Pipe Material Changed
From the Previous Sample Pool (2019 July – December)**

Address	Change	Reason
109 Bates St NW	Removed	Full LSR on 11/17/2020
1120 C St NE	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples
118 18TH ST SE	Removed	Full LSR on 9/15/2020
1222 HAMILTON ST NW	Removed	No lead; public side replaced in 2005 and customer reported on 10/9/2020 that private side was replaced during home renovation
1341 Parkwood Pl NW	Removed	Full LSR on 11/5/2020
1537 C ST SE	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples ¹
18 Milmarson Pl NW	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples ¹
2104 2nd St NW	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples ¹
2314 Park Pl SE	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples ¹
2325 32ND ST SE	Removed	No lead; test pit on 12/1/2020 found brass and galvanized iron
308 9th St SE	Removed	Declined to participate in program
3221 OLIVER ST NW	Removed	Full LSR on 7/30/2020
3230 Woodley Rd NW	Removed	Full LSR on 9/25/2020
3636 13TH ST NW	Removed	Full LSR on 6/16/2020
3809 ALTON PL NW	Removed	Declined to participate in program
3908 13TH ST NW	Removed	Full LSR on 10/27/2020
3909 13TH ST NW	Removed	Full LSR on 8/28/2020
4624 9TH ST NW	Removed	Declined to participate in program
75 Observatory Cir NW	Removed	Added in Jul-Dec 2020 sampling period but did not return valid samples ¹
80 Observatory Cir NW	Removed	Full LSR on 10/19/2020
904 Crittenden St NW	Added	Customer requested a lead test and meets criteria for Sample Pool ¹
906 Crittenden St NW	Removed	Full LSR on 9/16/20
912 EVARTS ST NE	Removed	Full LSR on 8/21/2020
923 9TH ST NE	Removed	Full LSR on 11/3/2020

Notes for Table 2:

¹ 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.

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

**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 th 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 th St NW	May, Nov
10	3H-14	Spicy Delight, 308 Carroll St NW	May, Nov