



2018 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 2018 and July to December 2018. 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; 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 2018 (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.

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 has never obtained a first or second draw copper test result above the copper action level since the addition of chloramines. 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.

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, 2019 and January 10, 2019, 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 entry point data collected by the Washington Aqueduct along with 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.

Table 1. January – June 2018 Sample Pool

No	Address	Pipe Material
1	10 S St NW	Lead
2	1004 NEWTON ST NE	Lead
3	1011 Taylor St NE	Lead
4	1012 DOUGLAS ST NE	Lead
5	1020 INDEPENDENCE AVE SE	Lead
6	106 V St NE	Lead
7	1100 EAST CAPITOL ST NE	Lead
8	1119 C ST NE	Lead
9	1123 Buchanan St NW	Lead
10	118 18TH ST SE	Lead
11	119 16TH ST NE	Lead
12	1247 GIRARD ST NE	Lead
13	125 Madison St NW	Lead
14	1303 ALLISON ST NW	Lead
15	1304 E ST NE	Lead
16	1315 FRANKLIN ST NE	Lead
17	132 11th St SE	Lead
18	1332 Ritchie Pl NE	Lead
19	1339 CHILDRESS ST NE	Lead
20	1346 F St NE	Lead
21	1402 S St NW	Lead
22	1407 A ST NE	Lead
23	1409 Allison St NW	Lead
24	1411 Taylor St NW	Lead
25	1425 VARNUM ST NW	Lead
26	1430 Crittenden St NW	Lead
27	1437 Ives Pl SE	Lead
28	15 Milmarson Pl NW	Lead
29	1505 Buchanan St NW	Lead
30	1505 CRITTENDEN ST NW	Lead
31	1519 Olive St NE	Lead
32	1520 Buchanan St NW	Lead
33	1613 Webster St NW	Lead
34	1620 Webster St NW	Lead
35	1627 Gales St NE	Lead
36	1635 WEBSTER ST NW	Lead
37	1649 HARVARD ST NW	Lead
38	1703 D St NE	Lead
39	1706 NEW JERSEY AVE NW	Lead
40	1715 IRVING ST NE	Lead
41	1726 13th St SE	Lead

No	Address	Pipe Material
42	1806 LAWRENCE ST NE	Lead
43	1816 Minnesota Ave SE	Lead
44	1826 Jackson St NE	Lead
45	2005 37th St NW	Lead
46	2007 37TH ST NW	Lead
47	2032 37TH ST NW	Lead
48	2246 Ontario Rd NW	Lead
49	228 V ST NE	Lead
50	2434 20TH ST NW	Lead
51	2435 33RD ST SE	Lead
52	2719 O ST NW	Lead
53	2804 6TH ST NE	Lead
54	2830 BRENTWOOD RD NE	Lead
55	2913 Brandywine St NW	Lead
56	2921 7th St SE	Lead
57	2923 Cathedral AVE NW	Lead
58	3011 Warder St NW	Lead
59	307 7th St NE	Lead
60	307 South Carolina Ave SE	Lead
61	313 5TH ST NE	Lead
62	314 VARNUM ST NW	Lead
63	3205 38TH ST NW	Lead
64	3206 38th St NW	Lead
65	3211 Central Ave NE	Lead
66	3213 OLIVER ST NW	Lead
67	322 TENNESSEE AVE NE	Lead
68	3221 OLIVER ST NW	Lead
69	3227 Northampton St NW	Lead
70	3309 35TH ST NW	Lead
71	3402 10th St NE	Lead
72	3420 34th St NW	Lead
73	36 Rhode Island Ave NW	Lead
74	3608 Park Pl NW	Lead
75	3621 Van Ness St NW	Lead
76	3625 Albemarle St NW	Lead
77	3629 Everett St NW	Lead
78	3636 13TH ST NW	Lead
79	3670 Park Pl NW	Lead
80	3708 Reno Rd NW	Lead
81	3710 Huntington St NW	Lead
82	3718 CHESAPEAKE ST NW	Lead
83	3724 CHESAPEAKE ST NW	Lead
84	3727 T St NW	Lead
85	3743 W ST NW	Lead

No	Address	Pipe Material
86	3819 Jenifer St NW	Lead
87	3822 Albemarle St NW	Lead
88	3838 BEECHER ST NW	Lead
89	3908 13TH ST NW	Lead
90	3911 13th St NE	Lead
91	3920 5TH ST NW	Lead
92	3925 13th St NW	Lead
93	4002 ILLINOIS AVE NW	Lead
94	4011 13TH ST NW	Lead
95	4014 Grant St NE	Lead
96	412 BRANDYWINE ST SE	Lead
97	4131 YUMA ST NW	Lead
98	414 DOUGLAS ST NE	Lead
99	421 Hamilton St NW	Lead
100	4214 8th St NW	Lead
101	422 Independence Ave SE	Lead
102	423 GALLATIN ST NW	Lead
103	431 Tennessee Ave NE	Lead
104	4409 Lowell St NW	Lead
105	4413 5th St NW	Lead
106	4413 IOWA AVE NW	Lead
107	4418 14th St NE	Lead
108	4425 14th St NE	Lead
109	4445 FARADAY PL NW	Lead
110	450 Newton Pl NW	Lead
111	4550 30TH ST NW	Lead
112	4607 5th St NW	Lead
113	4624 9TH ST NW	Lead
114	4703 Macarthur Blvd NW	Lead
115	4806 Kansas Ave NW	Lead
116	4810 KANSAS AVE NW	Lead
117	5007 13TH ST NW	Lead
118	5019 16TH ST NW	Lead
119	502 A ST SE	Lead
120	5122 7TH ST NW	Lead
121	519 12th St ne	Lead
122	519 9TH ST SE	Lead
123	522 4TH ST SE	Lead
124	523 12th st NE	Lead
125	5234 Illinois Ave NW	Lead
126	5306 KANSAS AVE NW	Lead
127	5310 13th St NW	Lead
128	5312 ILLINOIS AVE NW	Lead
129	5337 BROAD BRANCH RD NW	Lead

No	Address	Pipe Material
130	543 TENNESSEE AVE NE	Lead
131	5520 CAROLINA PL NW	Lead
132	559 23rd PL NE	Lead
133	5600 NEBRASKA AVE NW	Lead
134	5601 32ND ST NW	Lead
135	5731 3rd PI NW	Lead
136	5923 33rd St NW	Lead
137	619 12th St NE	Lead
138	627 Quebec PI NW	Lead
139	6308 8th St NW	Lead
140	6409 7TH ST NW	Lead
141	645 LAMONT ST NW	Lead
142	6516 8TH ST NW	Lead
143	6806 LAUREL ST NW	Lead
144	702 9th St SE	Lead
145	722 5th St NE	Lead
146	75 Bates St NW	Lead
147	8 N St SW	Lead
148	804 Delafield PI NW	Lead
149	815 Emerson St NW	Lead
150	816 MADISON ST NW	Lead
151	821 E ST SE	Lead
152	823 BUCHANAN ST NW	Lead
153	905 Kent PI NE	Lead
154	905 WEBSTER ST NW	Lead
155	912 Emerson St NW	Lead
156	912 EVARTS ST NE	Lead
157	914 Evarts St NE	Lead
158	923 9TH ST NE	Lead
159	926 Hamilton St NW	Lead
160	1211 Carrollsburg PI SW	Partial Lead
161	1222 HAMILTON ST NW	Partial Lead
162	126 16TH ST NE	Partial Lead
163	1353 JEFFERSON ST NW	Partial Lead
164	1412 S St NW	Partial Lead
165	1420 INGRAHAM ST NW	Partial Lead
166	1453 S St NW	Partial Lead
167	1513 27TH ST NW	Partial Lead
168	1529 27TH ST NW	Partial Lead
169	1736 Bay St SE	Partial Lead
170	1808 KEARNY ST NE	Partial Lead
171	231 K St NE	Partial Lead
172	2408 2nd St NE	Partial Lead
173	3030 44TH ST NW	Partial Lead

No	Address	Pipe Material
174	3036 P St NW	Partial Lead
175	308 9th St SE	Partial Lead
176	313 10TH ST SE	Partial Lead
177	3301 BROWN St NW	Partial Lead
178	3416 9th St NE	Partial Lead
179	36 Florida Ave NW	Partial Lead
180	3722 MCKINLEY ST NW	Partial Lead
181	3809 ALTON PL NW	Partial Lead
182	3907 13th St NW	Partial Lead
183	3913 8TH ST NW	Partial Lead
184	3917 8th St NW	Partial Lead
185	4215 39th St NW	Partial Lead
186	4233 JENIFER ST NW	Partial Lead
187	4818 8th ST NW	Partial Lead
188	4926 Glenbrook Rd NW	Partial Lead
189	5223 KANSAS AVE NW	Partial Lead
190	5301 RENO RD NW	Partial Lead
191	5404 39TH ST NW	Partial Lead
192	6213 7TH ST NW	Partial Lead
193	744 9TH ST SE	Partial Lead

**Table 2. Sites Added, Removed, and Pipe Material Changed
From the Previous Sample Pool (2017 July – December)**

No	Address	Change
1	4011 13th St NW	Added 1/11/2018
2	2921 7th St SE	Added 10/10/2017
3	3213 OLIVER ST NW	Added 10/10/2017
4	3011 Warder St NW	Added 10/4/2017
5	1303 ALLISON ST NW	Added 7/19/2017
6	3819 Jenifer St NW	Added 8/16/2017
7	5306 KANSAS AVE NW	Added 8/24/2017
8	1520 Buchanan St NW	Added 8/31/2017
9	1409 Allison St NW	Added 9/11/2017
10	5520 CAROLINA PL NW	Added 9/15/2017
11	3221 OLIVER ST NW	Added 9/16/2017
12	1816 Minnesota Ave SE	Added 9/6/2017
13	3414 LOWELL ST NW	Removed; customer does not want to participate in program
14	5328 41ST ST NW	Removed; full lead service line replacement 10/2/2017
15	521 Roxboro Pl NW	Removed; full lead service line replacement 10/3/2017
16	6906 8th St NW	Removed; full lead service line replacement 7/7/2017
17	4627 49th St NW	Removed; full lead service line replacement 8/2/2017
18	7755 16TH ST NW	Removed; multi-family residence
19	1410 ALLISON ST NW	Removed; no valid samples in last four sample events
20	1428 VARNUM ST NW	Removed; no valid samples in last four sample events
21	1517 C ST SE	Removed; no valid samples in last four sample events
22	1632 T ST SE	Removed; no valid samples in last four sample events
23	303 V ST NE	Removed; no valid samples in last four sample events
24	3510 QUESADA ST NW	Removed; no valid samples in last four sample events
25	4525 15TH ST NW	Removed; no valid samples in last four sample events
26	617 6th St NE	Removed; no valid samples in last four sample events
27	126 16TH ST NE	Pipe material changed from full to partial lead; galvanized iron viewed at point-of-entry
28	1453 S St NW	Pipe material changed from full to partial lead; customer reported private portion of service line replaced
29	4926 Glenbrook Rd NW	Pipe material changed from full to partial lead; copper viewed at point-of-entry
30	5223 KANSAS AVE NW	Pipe material changed from full to partial lead; customer reported private portion of service line replaced

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.

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 BKJV	Kimball Elementary, 3375 Minnesota Ave SE	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	A2H-5	Dept. of Human Services, 3851 Alabama Ave SE	May, Nov
7	L-4	Harbor Police Station, 550 water St SW	May, Nov
8	A1H-8	My 3 Sons Barber Shop, 3125 MLK Ave SE	May, Nov
9	L-27	Starbucks, 325 7 th St NW	May, Nov
10	3H-4	FH #22, 5760 Georgia Ave NW	May, Nov