



2017 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 2017 and July to December 2017. 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 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
- Construction near the site or the 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 2017 (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 Chain of Custody form (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. Chain-of-Custody or bottles must have the following information:

- Address on bottles match address on chain of custody;
- 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 chain of custody 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 chain of custody.

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 written and electronic format by January 10, 2017, which is 10 days following the end of the LCR monitoring compliance period. 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 January 10, 2018, which is 10 days following the end of the OCCT WQP monitoring compliance period.

Table 1. January – June 2017 Sample Pool

No	Address	Pipe Material
1	619 Varnum St NW	Lead
2	3227 Northampton St NW	Lead
3	1332 Ritchie Pl NE	Lead
4	722 5th St NE	Lead
5	1726 13th St SE	Lead
6	126 16TH ST NE	Lead
7	3911 13th St NE	Lead
8	3822 Albemarle St NW	Lead
9	5722 5th St NW	Lead
10	411 Buchanan St NW	Lead
11	3420 34th St NW	Lead
12	1304 E ST NE	Lead
13	201 13TH ST SE	Lead
14	627 Quebec Pl NW	Lead
15	7706 Alaska Ave NW	Lead
16	559 23rd Pl NE	Lead
17	36 Rhode Island Ave NW	LEAD
18	1402 S St NW	LEAD
19	3629 Everett St NW	LEAD
20	422 Independence Ave SE	LEAD
21	106 V St NE	LEAD
22	4624 9TH ST NW	LEAD
23	823 BUCHANAN ST NW	LEAD
24	1100 EAST CAPITOL ST NE	LEAD
25	2005 37th St NW	LEAD
26	912 EVARTS ST NE	LEAD
27	5601 32ND ST NW	LEAD
28	4445 FARADAY Pl NW	LEAD
29	519 9TH ST SE	LEAD
30	132 11th St SE	LEAD
31	1437 Ives Pl SE	LEAD
32	815 Emerson St NW	LEAD
33	5310 13th St NW	LEAD
34	5019 16TH ST NW	LEAD
35	519 12th St ne	LEAD
36	431 Tennessee Ave NE	LEAD
37	2317 1st St NW	LEAD
38	4607 5th St NW	LEAD
39	307 South Carolina Ave SE	LEAD

No	Address	Pipe Material
40	1123 Buchanan St NW	LEAD
41	523 12th st NE	LEAD
42	3402 10th St NE	LEAD
43	3925 13th St NW	LEAD
44	914 Evarts St NE	LEAD
45	3670 Park Pl NW	LEAD
46	1430 Crittenden St NW	LEAD
47	118 18TH ST SE	LEAD
48	1635 WEBSTER ST NW	Lead
49	322 TENNESSEE AVE NE	Lead
50	6213 7TH ST NW	Partial Lead
51	5301 RENO RD NW	Partial Lead
52	4818 8th ST NW	Partial Lead
53	119 16TH ST NE	Lead
54	3913 8TH ST NW	Partial Lead
55	4131 YUMA ST NW	Lead
56	1649 HARVARD ST NW	Lead
57	1222 HAMILTON ST NW	Partial Lead
58	1850 2ND ST NW	Partial Lead
59	3809 ALTON PL NW	Partial Lead
60	5404 39TH ST NW	Partial Lead
61	3030 44TH ST NW	Partial Lead
62	3400 WARDER ST NW	Lead
63	4413 IOWA AVE NW	Lead
64	5122 7TH ST NW	Lead
65	3920 5TH ST NW	Lead
66	5600 NEBRASKA AVE NW	Lead
67	1425 VARNUM ST NW	Lead
68	905 WEBSTER ST NW	Lead
69	3205 38TH ST NW	Lead
70	642 GALLATIN ST NW	Lead
71	5328 41ST ST NW	Lead
72	1012 DOUGLAS ST NE	Lead
73	7755 16TH ST NW	Lead
74	1505 CRITTENDEN ST NW	Lead
75	521 BUTTERNUT ST NW	Lead
76	1632 T ST SE	Lead
77	821 E ST SE	Lead
78	1517 C ST SE	Lead
79	423 GALLATIN ST NW	Lead
80	3838 BEECHER ST NW	Lead
81	543 TENNESSEE AVE NE	Lead
82	3414 LOWELL ST NW	Partial Lead

No	Address	Pipe Material
83	4810 KANSAS AVE NW	Lead
84	303 V ST NE	Lead
85	2825 27TH ST NE	Lead
86	3301 BROWN St NW	Partial Lead
87	1808 KEARNY ST NE	Partial Lead
88	2435 33RD ST SE	Lead
89	228 V ST NE	Lead
90	2007 37TH ST NW	Lead
91	2830 BRENTWOOD RD NE	Lead
92	3908 13TH ST NW	Lead
93	1353 JEFFERSON ST NW	Partial Lead
94	1315 FRANKLIN ST NE	Lead
95	4550 30TH ST NW	Lead
96	1706 NEW JERSEY AVE NW	Lead
97	1436 S St NW	Partial Lead
98	1412 S St NW	Partial Lead
99	3917 8th St NW	Partial Lead
100	804 Delafield Pl NW	Lead
101	926 Hamilton St NW	Lead
102	125 Madison St NW	Lead
103	3907 13th St NW	Partial Lead
104	3206 38th St NW	Lead
105	3710 Huntington St NW	Lead
106	4215 39th St NW	Partial Lead
107	4627 49th St NW	Lead
108	4409 Lowell St NW	Lead
109	4926 Glenbrook Rd NW	Lead
110	4703 Macarthur Blvd NW	Lead
111	702 9th St SE	Lead
112	1736 Bay St SE	Partial Lead
113	1211 Carrollsburg Pl SW	Partial Lead
114	231 K St NE	Partial Lead
115	1010 10th St NE	Lead
116	619 12th St NE	Lead
117	1357 C St NE	Lead
118	2408 2nd St NE	Partial Lead
119	3416 9th St NE	Partial Lead
120	4418 14th St NE	Lead
121	1826 Jackson St NE	Lead
122	3211 Central Ave NE	Lead
123	905 Kent Pl NE	Lead
124	1703 D St NE	Lead
125	1011 Taylor St NE	Lead

No	Address	Pipe Material
126	307 7th St NE	Lead
127	1003 Otis St NE	Lead
128	617 6th St NE	Lead
129	3036 P St NW	Partial Lead
130	5923 33rd St NW	Lead
131	912 Emerson St NW	Lead
132	5731 3rd Pl NW	Lead
133	5234 Illinois Ave NW	Lead
134	10 S St NW	Lead
135	75 Bates St NW	Lead
136	6308 8th St NW	Lead
137	4214 8th St NW	Lead
138	3727 T St NW	Lead
139	1620 Webster St NW	Lead
140	2913 Brandywine St NW	Lead
141	1453 S St NW	Lead
142	15 Milmarson Pl NW	Lead
143	308 9th St SE	Partial Lead
144	8 N St SW	Lead
145	2923 Cathedral AVE NW	Lead
146	1519 Olive St NE	Lead
147	36 Florida Ave NW	Partial Lead
148	1505 Buchanan St NW	Lead
149	1346 F St NE	Lead
150	1613 Webster St NW	Lead
151	3625 Albemarle St NW	Lead
152	450 Newton Pl NW	Lead
153	1627 Gales St NE	Lead
154	3636 13TH ST NW	Lead
155	421 Hamilton St NW	Lead
156	4806 Kansas Ave NW	Lead
157	3722 MCKINLEY ST NW	Partial Lead
158	1428 VARNUM ST NW	Lead
159	1659 NEWTON ST NW	Lead
160	5312 ILLINOIS AVE NW	Lead
161	1738 ALLISON ST NW	Lead
162	1513 27TH ST NW	Partial Lead
163	3724 CHESAPEAKE ST NW	Lead
164	2719 O ST NW	Lead
165	4413 5th St NW	Lead
166	4811 Illinois Ave NW	Lead
167	5007 13TH ST NW	Lead
168	412 BRANDYWINE ST SE	Lead

No	Address	Pipe Material
169	313 10TH ST SE	Partial Lead
170	1715 IRVING ST NE	Lead
171	6516 8TH ST NW	Lead
172	816 MADISON ST NW	Lead
173	522 4TH ST SE	Lead
174	1420 INGRAHAM ST NW	Partial Lead
175	414 G ST NE	Lead
176	1020 INDEPENDENCE AVE SE	Lead
177	502 A ST SE	Lead
178	3510 QUESADA ST NW	Lead
179	2804 6TH ST NE	Lead
180	3309 35TH ST NW	Lead
181	5223 KANSAS AVE NW	Lead
182	1410 ALLISON ST NW	Lead
183	744 9TH ST SE	Partial Lead
184	4525 15TH ST NW	Lead
185	4425 14th St NE	Lead
186	15 MADISON ST NW	Lead
187	2036 17TH ST NW	Lead
188	1339 CHILDRESS ST NE	Lead
189	923 9TH ST NE	Lead
190	314 VARNUM ST NW	Lead
191	1529 27TH ST NW	Partial Lead
192	4233 JENIFER ST NW	Partial Lead
193	4002 ILLINOIS AVE NW	Lead
194	313 5TH ST NE	Lead
195	3916 5TH ST NW	Lead
196	4014 Grant St NE	Lead
197	2032 37TH ST NW	Lead
198	4921 30th PI NW	Lead
199	3621 Van Ness St NW	Lead
200	1018 JACKSON ST NE	Lead
201	414 DOUGLAS ST NE	Lead
202	1119 C ST NE	Lead
203	6409 7TH ST NW	Lead
204	2434 20TH ST NW	Lead
205	5337 BROAD BRANCH RD NW	Lead
206	1806 LAWRENCE ST NE	LEAD

**Table 2. Sites Added, Removed, and Pipe Material Changed
From the Previous Sample Pool (2016 June – December)**

No	Address	Change
1	230 V St NE	Removed; full LSR 6/29/2016
2	3340 Volta Pl NW	Removed; requested to not participate in program
3	3405 HOLMEAD PL NW	Removed; requested to not participate in program
4	4719 9TH ST NW	Removed; requested to not participate in program
5	639 3rd St NE	Removed; test pit 5/31/2016 revealed copper service
6	714 4th St NE	Removed; full LSR 6/27/2016
7	1319 POTOMAC AVE SE	Removed; did not return valid samples in last four sampling events
8	2212 38th St NW	Removed; did not return valid samples in last four sampling events
9	336 Quackenbos St NE	Removed; test pit 11/17/2016 revealed copper service
10	223 14th Pl NE	Removed; did not return valid samples in last four sampling events
11	609 49TH PL NE	Removed; did not return valid samples in last four sampling events
12	1911 P ST SE	Removed; did not return valid samples in last four sampling events
13	6205 14TH ST NW	Removed; did not return valid samples in last four sampling events
14	1113 STAPLES ST NE	Removed; did not return valid samples in last four sampling events
15	1420 INGRAHAM ST NW	Pipe material changed from full lead to partial lead; customer reported private portion was replaced 20 years ago
16	627 Quebec Pl NW	Added Jul-Dec 2016 semester; customer requested lead test
17	7706 Alaska Ave NW	Added Jul-Dec 2016 semester; customer requested lead test
18	559 23rd Pl NE	Added Jul-Dec 2016 semester; customer requested lead test
19	36 Rhode Island Ave NW	Added Jul-Dec 2016 semester; customer requested lead test
20	1402 S St NW	Added Jul-Dec 2016 semester; customer requested lead test
21	3629 Everett St NW	Added Jul-Dec 2016 semester; customer requested lead test
22	422 Independence Ave SE	Added Jul-Dec 2016 semester; customer requested lead test
23	106 V St NE	Added Jul-Dec 2016 semester; customer requested lead test
24	4624 9TH ST NW	Added Jul-Dec 2016 semester; customer requested lead test
25	823 BUCHANAN ST NW	Added Jul-Dec 2016 semester; customer requested lead test
26	1100 EAST CAPITOL ST NE	Added Jul-Dec 2016 semester; customer requested lead test
27	2005 37th St NW	Added Jul-Dec 2016 semester; customer requested lead test
28	912 EVARTS ST NE	Added Jul-Dec 2016 semester; customer requested lead test
29	5601 32ND ST NW	Added Jul-Dec 2016 semester; customer requested lead test
30	4445 FARADAY PL NW	Added Jul-Dec 2016 semester; customer requested lead test
31	519 9TH ST SE	Added Jul-Dec 2016 semester; customer requested lead test
32	132 11th St SE	Added Jul-Dec 2016 semester; customer requested lead test
33	1437 Ives Pl SE	Added Jul-Dec 2016 semester; customer requested lead test
34	815 Emerson St NW	Added Jul-Dec 2016 semester; customer requested lead test
35	5310 13th St NW	Added Jul-Dec 2016 semester; customer requested lead test
36	5019 16TH ST NW	Added Jul-Dec 2016 semester; customer requested lead test

No	Address	Change
37	519 12th St NE	Added Jul-Dec 2016 semester; customer requested lead test
38	431 Tennessee Ave NE	Added Jul-Dec 2016 semester; customer requested lead test
39	2317 1st St NW	Added Jul-Dec 2016 semester; customer requested lead test
40	4607 5th St NW	Added Jul-Dec 2016 semester; customer requested lead test
41	307 South Carolina Ave SE	Added Jul-Dec 2016 semester; customer requested lead test
42	1123 Buchanan St NW	Added Jul-Dec 2016 semester; customer requested lead test
43	523 12th St NE	Added Jul-Dec 2016 semester; customer requested lead test
44	3402 10th St NE	Added Jul-Dec 2016 semester; customer requested lead test
45	1806 LAWRENCE ST NE	Added Jul-Dec 2016 semester; customer requested lead test
46	3925 13th St NW	Added Jul-Dec 2016 semester; customer requested lead test
47	914 Evarts St NE	Added Jul-Dec 2016 semester; customer requested lead test
48	3670 Park Pl NW	Added Jul-Dec 2016 semester; customer requested lead test
49	1430 Crittenden St NW	Added Jul-Dec 2016 semester; customer requested lead test
50	118 18TH ST SE	Added Jul-Dec 2016 semester; customer requested lead test

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-4	Tenley Minimarket, 4326 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	A1-H8	My 3 Sons Barber Shop, 3125 MLK Ave SE	May, Nov
9	L-7	Southwest Health, 850 Delaware SW	May, Nov
10	3H-4	FH #22, 5760 Georgia Ave NW	May, Nov