

NEW SOURCE CHEMICAL TESTING

LOUISIANA DEPARTMENT OF HEALTH • OFFICE OF PUBLIC HEALTH

The requirement (LAC 51:XII.167 and 169) for testing new sources (water wells and intakes) for chemicals (Tables 1 to 6) is to ensure that water can consistently and reliably meet National Primary Drinking Water Regulations promulgated by the U.S. Environmental Protection Agency (USEPA). Water system representatives must submit a laboratory report of raw water chemical test results from an LDH/OPH-certified laboratory to LDH/OPH Engineering Services prior to placing any new source into service. The cost to analyze (test) a full sample set of chemicals/drinking water (including Per- and Polyfluoroalkyl substances (PFAS)) was estimated at approximately \$3000.00 (on March 2026). LDH/OPH Engineering Services shall review and provide approval of the results prior to using the new source. Water systems should comply with National Secondary Drinking Water Regulations. All analyses must meet appropriate method detection limits set in 40 CFR Part 141. A list of certified laboratories is available at <http://ldh.la.gov/index.cfm/page/490>.

Per LAC 51:XII.165 plans and specification shall include treatment for new water source(s) if necessary to comply with current requirements (i.e., the maximum contaminant levels [MCLs]) set by the USEPA. Additional testing may be required based on the initial results.

Contaminant List

TABLE 1. INORGANIC CONTAMINANTS (IOCs), NITRATES/NITRITES, AND CYANIDE

IOC CONTAMINANTS (Methods-40 CFR 141.23(k)(1))	ANALYTICAL CODE	MCL or AL (mg/L)
1 Antimony	1074	0.006
2 Asbestos	1094	7 MFL (> 10um)
3 Arsenic	1005	0.01 – as of Jan 23, 2006
4 Barium	1010	2
5 Beryllium	1075	0.004
6 Cadmium	1015	0.005
7 Chromium	1020	0.1
8 Lead	1030	AL = 0.015
9 Copper	1022	AL = 1.3
10 Cyanide	1024	0.2
11 Fluoride	1025	4.0
12 Mercury	1035	0.002
13 Nitrate	1040	10 (as Nitrogen)
14 Nitrite	1041	1 (as Nitrogen)
15 Selenium	1045	0.05
16 Thallium	1085	0.002

TABLE 2. SYNTHETIC ORGANIC CONTAMINANTS (SOCs)

SOC CONTAMINANTS (Methods-40 CFR 141.24(e))	ANALYTICAL CODE	MCL (mg/L)
1 Alachlor	2051	0.002
2 Atrazine	2050	0.003
3 Benzo [a] pyrene (PAHs)	2306	0.0002
4 Carbofuran	2046	0.04
5 Chlordane	2959	0.002
6 Dalapon	2031	0.2
7 2, 4-D (2,4-Dichlorophenoxyacetic acid)	2105	0.07
8 Di [2-ethylhexyl] adipate	2035	0.4
9 Di [2-ethylhexyl] phthalate	2039	0.006
10 Dibromochloropropane [DBCP]	2931	0.0002
11 Dinoseb	2041	0.007
12 Dioxin (2, 3, 7, 8-TCDD)	2063	0.00000003
13 Diquat	2032	0.02
14 Endothall	2033	0.1
15 Endrin	2005	0.002
16 Ethylene Dibromide [EDB]	2946	0.00005

SOC CONTAMINANTS (Methods-40 CFR 141.24(e))		ANALYTICAL CODE	MCL (mg/L)
17	Glyphosate	2034	0.7
18	Heptachlor	2065	0.0004
19	Heptachlor epoxide	2067	0.0002
20	Hexachlorobenzene	2274	0.001
21	Hexachlorocyclo-pentadiene	2042	0.05
22	Lindane	2010	0.0002
23	Methoxychlor	2015	0.04
24	Oxamyl [Vydate]	2036	0.2
25	Pentachlorophenol	2326	0.001
26	Picloram	2040	0.5
27	Polychlorinated biphenyls [PCBs]	2383	0.0005
28	Simazine	2037	0.004
29	Toxaphene	2020	0.003
30	2,4,5-TP [Silvex]	2110	0.05

TABLE 3. VOLITILE ORGANIC CHEMICALS (VOCs)

CONTAMINANTS (Methods-40 CFR 141.24(e))		ANALYTICAL CODE	MCL (mg/L)
1	Benzene	2990	0.005
2	Carbon tetrachloride	2982	0.005
3	o-Dichlorobenzene	2968	0.6
4	para-Dichlorobenzene	2969	0.075
5	1,2-Dichloroethane	2980	0.005
6	1,1-Dichloroethylene	2977	0.007
7	cis-1,2-Dichloroethylene	2380	0.07
8	trans-1,2-Dichloroethylene	2979	0.1
9	Dichloromethane	2964	0.005
10	1,2-Dichloropropane	2983	0.005
11	Ethylbenzene	2992	0.7
12	[Mono]chlorobenzene	2989	0.1
13	Styrene	2996	0.1
14	Tetrachloroethylene	2987	0.005
15	Toluene	2991	1
16	1,2,4-Trichlorobenzene	2378	0.07
17	1,1,1-Trichloroethane	2981	0.2
18	1,1,2-Trichloroethane	2985	0.005
19	Trichloroethylene	2984	0.005
20	Vinyl chloride	2976	0.002
21	Xylenes [total]	2955	10

TABLE 4. RADIONUCLIDES

RADIONULCIDE (Methods-40 CFR 141.25(a))		ANALYTICAL CODE	MCLs
1	Gross Alpha particle	4109	15 pCi/L
2	Combined Radium 226/228	4010	5 pCi/L
3	Uranium [as of 12/08/03]	4006	30 ug/L
4	Beta particle and Photon emitters	4101	4 mrem/yr ¹
5	Gross Beta	4100	4 mrem/yr ¹

¹Speciation for Strontium and Tritium is required when Gross Beta exceeds 8 pCi/L.

TABLE 5. PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

PFAS (Methods - 40 CFR 141.901(b))		ANALYTICAL CODE	MCL ¹ (mg/L)	Trigger Level (mg/L)
1	Perfluorooctanoic Acid (PFOA)	2806	0.0000040	0.0000020
2	Perfluorooctanesulfonic (PFOS)	2805	0.0000040	0.0000020
3	Perfluorohexane Sulfonate (PFHxS)	2803	0.00001	0.000005
4	Perfluorononanoate (PFNA)	2804	0.00001	0.000005
5	2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy) propanoate (HFPO-DA)	2816	0.00001	0.000005
6	Perfluorobutane Sulfonate (PFBS)	2801	N/A ²	
7	Hazard Index ³	2840	1	0.5

¹ MCLs are not effective until 2030.

² PFBS is analyzed as a component to the Hazard index, but does not have an individual MCL.

³The Hazard index is a weighted unitless value incorporating the results of (PFBS, HFPO-DA, PFNA, and PFHxS)

$$\text{Hazard Index (1 unitless)} = (([\text{HFPO-DA}_{\text{ppt}}] / [10 \text{ ppt}]) + (([\text{PFBS}_{\text{ppt}}] / [2000 \text{ ppt}]) + (([\text{PFNA}] / [10 \text{ ppt}]) + (([\text{PFHxS}_{\text{ppt}}] / [10 \text{ ppt}])$$

TABLE 6. DISINFECTION BY-PRODUCT FORMATION POTENTIAL

For water systems with known Disinfection By-Products, such as Total Trihalomethanes (> 80 ug/L) and Haloacetic Acids (> 60 ug/L) exceedances.

Disinfection By Product Potential (Methods - 40 CFR 141.131)		ANALYTICAL CODE	Levels
1	Total Organic Carbon (TOC)	4109	
2	Dissolved Organic Carbon (DOC)	2919	
2	Color	1905	15 CU (Secondary MCL)
3	Chloroform	2941	
4	Bromoform	2942	
5	Bromodichloromethane	2943	
6	Dibromochloromethane	2944	
7	Trihalomethanes (THM)	2950	0.080 mg/L (MCL)
8	Monochloroacetic acid	2450	
9	Dichloroacetic acid	2451	
10	Trichloroacetic acid	2452	
11	Monobromoacetic acid	2453	
12	Dibromoacetic acid	2454	
13	Haloacetic Acids (HAA5)	2456	0.060 mg/L (MCL)
14	Bromide	1004	

SUBMIT ALL RESULTS TO THE FOLLOWING OFFICES FOR REVIEW AND APPROVAL:

Attn: Safe Drinking Water Program
 LDH – OPH Engineering Services
 P.O. Box 4489, Bin #10, Box #3
 Baton Rouge, LA 70821

Attn: Regional office staff
https://www.ldh.la.gov/assets/oph/Center-EH/engineering/Engineering_Map.pdf