

Appendix A: EPA Methods of Environmental Water Analysis

Table A-1. Inorganic constituents of concern in water samples, the analytical methods used to determine their concentrations, and their contractual reporting limits

| Constituents of concern | Analytical method | Reporting limit ^(a,b) |
|---|----------------------------|----------------------------------|
| Metals and minerals (mg/L) | | |
| All alkalinities | EPA 310.1 | 1 |
| Aluminum | EPA 200.7 or 200.8 | 0.05 or 0.2 |
| Ammonia nitrogen (as N) | EPA 350.3, 350.2, or 350.1 | 0.03 or 0.1 |
| Antimony | EPA 204.2 or 200.8 | 0.005 |
| Arsenic | EPA 206.2 or 200.8 | 0.002 |
| Barium | EPA 200.7 or 200.8 | 0.025 or 0.01 |
| Beryllium | EPA 210.2 or 200.8 | 0.0005 or 0.0002 |
| Boron | EPA 200.7 | 0.05 |
| Bromide | EPA 300.0 | 0.5 |
| Cadmium | EPA 213.2 or 200.8 | 0.0005 |
| Calcium | EPA 200.7 | 0.5 |
| Chloride | EPA 300.0 | 1 or 0.5 |
| Chlorine (residual) | EPA 330.1 or 330.4 | 0.1 |
| Chromium | EPA 218.2 or 200.8 | 0.01 or 0.001 |
| Chromium(VI) | EPA 218.4 or 7196 | 0.002 |
| Cobalt | EPA 200.7 or 200.8 | 0.025 or 0.05 |
| Copper | EPA 220.2, 200.7 or 200.8 | 0.001, 0.01 or 0.05 |
| Cyanide | EPA 335.2 | 0.02 |
| Fluoride | EPA 340.2 or 340.1 | 0.05 |
| Hardness, total (as CaCO ₃) | SM 2320B | 1 |
| Iron | EPA 200.7 or 200.8 | 0.1 |
| Lead | EPA 239.2 or 200.8 | 0.002 or 0.005 |
| Magnesium | EPA 200.7 or 200.8 | 0.5 |
| Manganese | EPA 200.7 or 200.8 | 0.03 |
| Mercury | EPA 245.2 or 245.1 | 0.0002 |
| Molybdenum | EPA 200.7 or 200.8 | 0.025 |
| Nickel | EPA 249.2, 200.7 or 200.8 | 0.002, 0.005 or 0.1 |
| Nitrate (as NO ₃) | EPA 353.2, 354.1 or 300.0 | 0.5 |
| Nitrite (as NO ₂) | EPA 353.2, 354.1 or 300.0 | 0.5 |
| Ortho-phosphate | EPA 300.0, 365.1 or 365.2 | 0.05 |
| Perchlorate | EPA 314.0 | 0.004 |
| Potassium | EPA 200.7 | 1 |
| Selenium | EPA 270.2 or 200.8 | 0.002 |

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Table A-1. Inorganic constituents of concern in water samples, the analytical methods used to determine their concentrations, and their contractual reporting limits (continued)

| Constituents of concern | Analytical method | Reporting limit ^(a,b) |
|-------------------------------------|------------------------|----------------------------------|
| Silver | EPA 272.2 or 200.8 | 0.001 or 0.0005 |
| Sodium | EPA 200.7 | 1 or 0.1 |
| Sulfate | EPA 300.0 | 1 |
| Surfactants | EPA 425.1 | 0.5 |
| Thallium | EPA 279.2 or 200.8 | 0.001 |
| Total dissolved solids | EPA 160.1 | 1 |
| Total suspended solids | EPA 160.2 | 1 |
| Total Kjeldahl nitrogen | EPA 351.2 or 351.3 | 0.2 |
| Total phosphorus (as P) | EPA 365.4 or SM 4500-P | 0.05 |
| Vanadium | EPA 200.7 or 200.8 | 0.02 or 0.025 |
| Zinc | EPA 200.7 or 200.8 | 0.02 or 0.05 |
| General indicator parameters | | |
| pH (pH units) | EPA 150.1 | none |
| Biochemical oxygen demand (mg/L) | SM 5210B | 2 |
| Conductivity (μ S/cm) | EPA 120.1 | none |
| Chemical oxygen demand (mg/L) | EPA 410.4 | 5 |
| Dissolved oxygen (mg/L) | EPA 360.1 | 0.05 |
| Total organic carbon (mg/L) | EPA 9060 or 415.1 | 1 |
| Total organic halides (mg/L) | EPA 9020 | 0.02 |
| Toxicity, acute (fathead minnow) | EPA 600/4-AB5-013 | NA |
| Toxicity, chronic (fathead minnow) | EPA 1000 | NA |
| Toxicity, chronic (daphnid) | EPA 1002 | NA |
| Toxicity, chronic (green algae) | EPA 1003 | NA |
| Radioactivity (Bq/L) | | |
| Gross alpha | EPA 900 | 0.074 |
| Gross beta | EPA 900 | 0.11 |
| Radioisotopes (Bq/L) | | |
| Americium-241 | U-NAS-NS-3050 | 0.0037 |
| Plutonium-238 | U-NAS-NS-3050 | 0.0037 |
| Plutonium-239+240 | U-NAS-NS-3050 | 0.0037 |
| Radon-222 | EPA 913 | 3.7 |
| Radium-226 | EPA 903 | 0.0093 |
| Radium-228 | EPA 904 | 0.037 |
| Thorium-228 | U-NAS-NS-3050 | 0.009 |
| Thorium-230 | U-NAS-NS-3050 | 0.006 |
| Thorium-232 | U-NAS-NS-3050 | 0.006 |
| Tritium | EPA 906 | 3.7 |
| Uranium-234 | EPA 908 | 0.0037 |

Table A-1. Inorganic constituents of concern in water samples, the analytical methods used to determine their concentrations, and their contractual reporting limits (continued)

| Constituents of concern | Analytical method | Reporting limit ^(a,b) |
|-------------------------|-------------------|----------------------------------|
| Uranium-235 | EPA 908 | 0.0037 |
| Uranium-238 | EPA 908 | 0.0037 |

- a The significant figures displayed in this table vary by constituent. These variations reflect regulatory agency permit stipulations, or the applicable analytical laboratory contract under which the work was performed, or both.
- b These reporting limits are for water samples with low concentrations of dissolved solids. If higher concentrations are present, limits are likely to be higher.

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Table A-2. Organic constituents of concern in water samples and their contractual reporting limits of concentration, sorted by analytical method

| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|------------------------------------|------------------------------|---|------------------------------|
| EPA Method 1664 | | <i>cis</i> -1,3-Dichloropropene | 0.5 |
| Oil & Grease | 1000 | Dibromochloromethane | 0.2 |
| EPA Method 420.1 | | Dibromomethane | 0.2 |
| Phenolics | 5 | Dichlorodifluoromethane | 0.2 |
| EPA Method 502.2 (or 524.2) | | Ethylbenzene | 0.2 |
| 1,1,1,2-Tetrachloroethane | 0.2 | Freon 113 | 0.2 |
| 1,1,1-Trichloroethane | 0.2 | Hexachlorobutadiene | 0.2 |
| 1,1,2,2-Tetrachloroethane | 0.2 | Isopropylbenzene | 0.2 |
| 1,1,2-Trichloroethane | 0.2 | <i>m</i> - and <i>p</i> -Xylene isomers | 0.2 |
| 1,1-Dichloroethane | 0.2 | Methylene chloride | 0.2 |
| 1,1-Dichloroethene | 0.2 | <i>n</i> -Butylbenzene | 0.2 |
| 1,1-Dichloropropene | 0.2 | <i>n</i> -Propylbenzene | 0.2 |
| 1,2,3-Trichlorobenzene | 0.2 | Naphthalene | 0.2 |
| 1,2,3-Trichloropropane | 0.2 | <i>o</i> -Xylene | 0.2 |
| 1,2,4-Trichlorobenzene | 0.2 | Isopropyl toluene | 0.2 |
| 1,2,4-Trimethylbenzene | 0.2 | <i>sec</i> -Butylbenzene | 0.2 |
| 1,2-Dichlorobenzene | 0.2 | Styrene | 0.2 |
| 1,2-Dichloroethane | 0.2 | <i>tert</i> -Butylbenzene | 0.2 |
| 1,2-Dichloropropane | 0.2 | Tetrachloroethene | 0.2 |
| 1,3,5-Trimethylbenzene | 0.2 | Toluene | 0.2 |
| 1,3-Dichlorobenzene | 0.2 | <i>trans</i> -1,2-Dichloroethene | 0.2 |
| 1,3-Dichloropropane | 0.2 | <i>trans</i> -1,3-Dichloropropene | 0.2 |
| 1,4-Dichlorobenzene | 0.2 | Trichloroethene | 0.2 |
| 2,2-Dichloropropane | 0.2 | Trichlorofluoromethane | 0.2 |
| 2-Chlorotoluene | 0.2 | Vinyl chloride | 0.2 |
| 4-Chlorotoluene | 0.2 | EPA Method 507 | |
| Benzene | 0.2 | Alachlor | 0.5 |
| Bromobenzene | 0.2 | Atraton | 0.5 |
| Bromochloromethane | 0.2 | Atrazine | 0.5 |
| Bromodichloromethane | 0.2 | Bromacil | 0.5 |
| Bromoform | 0.2 | Butachlor | 0.5 |
| Bromomethane | 0.2 | Diazinon | 0.5 |
| Carbon tetrachloride | 0.2 | Dichlorvos | 0.5 |
| Chlorobenzene | 0.2 | Ethoprop | 0.5 |
| Chloroethane | 0.2 | Merphos | 0.5 |
| Chloroform | 0.2 | Metolachlor | 0.5 |
| Chloromethane | 0.2 | Metribuzin | 0.5 |
| <i>cis</i> -1,2-Dichloroethene | 0.2 | Mevinphos | 0.5 |

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Table A-2. Organic constituents of concern in water samples and their contractual reporting limits of concentration, sorted by analytical method (continued)

| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|--------------------------------|---------------------------------|---|---------------------------------|
| Molinate | 0.5 | <i>cis</i> -1,3-Dichloropropene | 1 |
| Prometon | 0.5 | Dibromochloromethane | 1 |
| Prometryn | 0.5 | Dibromomethane | 1 |
| Simazine | 0.5 | Dichlorodifluoromethane | 2 |
| Terbutryn | 0.5 | Ethylbenzene | 1 |
| EPA Method 524.2 | | Ethylene dibromide | 1 |
| 1,1,1,2-Tetrachloroethane | 1 | Freon 113 | 1 |
| 1,1,1-Trichloroethane | 1 | Hexachlorobutadiene | 1 |
| 1,1,2,2-Tetrachloroethane | 1 | Isopropylbenzene | 1 |
| 1,1,2-Trichloroethane | 1 | <i>m</i> - and <i>p</i> -Xylene isomers | 1 |
| 1,1-Dichloroethane | 1 | Methylene chloride | 1 |
| 1,1-Dichloroethene | 1 | <i>n</i> -Butylbenzene | 1 |
| 1,1-Dichloropropene | 1 | <i>n</i> -Propylbenzene | 1 |
| 1,2,3-Trichlorobenzene | 1 | Naphthalene | 1 |
| 1,2,3-Trichloropropane | 1 | <i>o</i> -Xylene | 1 |
| 1,2,4-Trichlorobenzene | 1 | Isopropyl toluene | 1 |
| 1,2,4-Trimethylbenzene | 1 | <i>sec</i> -Butylbenzene | 1 |
| 1,2-Dibromo-3-chloropropane | 2 | Styrene | 1 |
| 1,2-Dichlorobenzene | 1 | <i>tert</i> -Butylbenzene | 1 |
| 1,2-Dichloroethane | 1 | Tetrachloroethene | 1 |
| 1,2-Dichloropropane | 1 | Toluene | 1 |
| 1,3,5-Trimethylbenzene | 1 | <i>trans</i> -1,2-Dichloroethene | 1 |
| 1,3-Dichlorobenzene | 1 | <i>trans</i> -1,3-Dichloropropene | 1 |
| 1,3-Dichloropropane | 1 | Trichloroethene | 0.5 |
| 1,4-Dichlorobenzene | 1 | Trichlorofluoromethane | 1 |
| 2-Chlorotoluene | 1 | Vinyl chloride | 2 |
| 4-Chlorotoluene | 1 | EPA Method 525 | |
| Benzene | 1 | 2,4-Dinitrotoluene | 0.5 |
| Bromobenzene | 1 | 2,6-Dinitrotoluene | 0.5 |
| Bromodichloromethane | 1 | 4,4'-DDD | 0.5 |
| Bromoform | 1 | 4,4'-DDE | 0.5 |
| Bromomethane | 2 | 4,4'-DDT | 0.5 |
| Carbon tetrachloride | 1 | Acenaphthylene | 0.5 |
| Chlorobenzene | 1 | Alachlor | 0.5 |
| Chloroethane | 2 | Aldrin | 0.5 |
| Chloroform | 1 | Anthracene | 0.5 |
| Chloromethane | 2 | Aroclor 1016 (PCB) | 0.5 |
| <i>cis</i> -1,2-Dichloroethene | 1 | Aroclor 1221 (PCB) | 0.5 |

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Table A-2. Organic constituents of concern in water samples and their contractual reporting limits of concentration, sorted by analytical method (continued)

| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|----------------------------|------------------------------|----------------------------|------------------------------|
| Aroclor 1232 (PCB) | 0.5 | Hexachlorobenzene | 0.5 |
| Aroclor 1242 (PCB) | 0.5 | Hexachlorocyclopentadiene | 0.5 |
| Aroclor 1248 (PCB) | 0.5 | Indeno(1,2,3-c,d)pyrene | 0.5 |
| Aroclor 1254 (PCB) | 0.5 | Isophorone | 0.5 |
| Aroclor 1260 (PCB) | 0.5 | Lindane | 0.5 |
| Atraton | 0.5 | Merphos | 0.5 |
| Atrazine | 0.5 | Methoxychlor | 0.5 |
| Benzo(a)anthracene | 0.5 | Metolachlor | 0.5 |
| Benzo(a)pyrene | 0.5 | Metribuzin | 0.5 |
| Benzo(b)fluoranthene | 0.5 | Mevinphos | 0.5 |
| Benzo(g,h,i)perylene | 0.5 | Pentachlorobenzene | 0.5 |
| Benzo(k)fluoranthene | 0.5 | Pentachlorophenol | 0.5 |
| Bis(2-ethylhexyl)phthalate | 0.5 | Phenanthrene | 0.5 |
| Bromacil | 0.5 | Prometon | 0.5 |
| Butachlor | 0.5 | Prometryne | 0.5 |
| Butylbenzylphthalate | 0.5 | Propachlor | 0.5 |
| Chlordane | 0.5 | Pyrene | 0.5 |
| Chlorpropham | 0.5 | Simazine | 0.5 |
| Chlorpyrifos | 0.5 | Stirophos | 0.5 |
| Chrysene | 0.5 | Terbutryn | 0.5 |
| Di (2-ethylhexyl) adipate | 0.5 | Toxaphene | 0.5 |
| Di-n-butylphthalate | 0.5 | EPA Method 547 | |
| Diazinon | 0.5 | Glyphosate 20 | 20 |
| Dibenzo(a,h)anthracene | 0.5 | EPA Method 601 | |
| Dichlorvos | 0.5 | 1,1,1-Trichloroethane | 0.5 |
| Dieldrin | 0.5 | 1,1,2,2-Tetrachloroethane | 0.5 |
| Diethylphthalate | 0.5 | 1,1,2-Trichloroethane | 0.5 |
| Dimethylphthalate | 0.5 | 1,1-Dichloroethane | 0.5 |
| Disulfoton | 0.5 | 1,1-Dichloroethene | 0.5 |
| Endosulfan I | 0.5 | 1,2-Dichlorobenzene | 0.5 |
| Endosulfan II | 0.5 | 1,2-Dichloroethane | 0.5 |
| Endosulfan sulfate | 0.5 | 1,2-Dichloroethene (total) | 0.5 |
| Endrin | 0.5 | 1,2-Dichloropropane | 0.5 |
| Endrin aldehyde | 0.5 | 1,3-Dichlorobenzene | 0.5 |
| Ethoprop | 0.5 | 1,4-Dichlorobenzene | 0.5 |
| Fluorene | 0.5 | 2-Chloroethylvinylether | 0.5 |
| Heptachlor | 0.5 | Bromodichloromethane | 0.5 |
| Heptachlor epoxide | 0.5 | Bromoform | 0.5 |

Table A-2. Organic constituents of concern in water samples and their contractual reporting limits of concentration, sorted by analytical method (continued)

| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|--------------------------------------|------------------------------|---------------------------------|------------------------------|
| Bromomethane | 0.5 | Diendrin | 0.1 |
| Carbon tetrachloride | 0.5 | Endosulfan I | 0.05 |
| Chlorobenzene | 0.5 | Endosulfan II | 0.1 |
| Chloroethane | 0.5 | Endosulfan sulfate | 0.1 |
| Chloroform | 0.5 | Endrin | 0.1 |
| Chloromethane | 0.5 | Endrin aldehyde | 0.1 |
| cis-1,2-Dichloroethene | 0.5 | Heptachlor | 0.05 |
| cis-1,3-Dichloropropene | 0.5 | Heptachlor epoxide | 0.05 |
| Dibromochloromethane | 0.5 | Methoxychlor | 0.5 |
| Dichlorodifluoromethane | 0.5 | 4,4'-DDD | 0.1 |
| Freon 113 | 0.5 | 4,4'-DDE | 0.1 |
| Methylene chloride | 0.5 | 4,4'-DDT | 0.1 |
| Tetrachloroethene <i>trans</i> -1,2- | 0.5 | Toxaphene | 1 |
| Dichloroethene <i>trans</i> -1,3- | 0.5 | EPA Method 615 | |
| Dichloropropene | 0.5 | 2,4,5-T | 0.5 |
| Trichloroethene | 0.5 | 2,4,5-TP (Silvex) | 0.2 |
| Trichlorofluoromethane | 0.5 | 2,4-D | 1 |
| Vinyl chloride | 0.5 | 2,4-Dichlorophenoxy acetic acid | 2 |
| EPA Method 602 | | Dalapon | 10 |
| 1,2-Dichlorobenzene | 0.3 | Dicamba | 1 |
| 1,3-Dichlorobenzene | 0.3 | Dichloroprop | 2 |
| 1,4-Dichlorobenzene | 0.3 | Dinoseb | 1 |
| Benzene | 0.4 | MCPA | 250 |
| Chlorobenzene | 0.3 | MCPP | 250 |
| Ethylbenzene | 0.3 | EPA Method 624 | |
| <i>m</i> -Xylene isomers | 0.4 | 1,1,1-Trichloroethane | 1 |
| <i>o</i> -Xylene | 0.4 | 1,1,2,2-Tetrachloroethane | 1 |
| <i>p</i> -Xylene | 0.4 | 1,1,2-Trichloroethane | 1 |
| Toluene | 0.3 | 1,1-Dichloroethane | 1 |
| Total xylene isomers | 0.4 | 1,1-Dichloroethene | 1 |
| EPA Method 608 | | 1,2-Dichlorobenzene | 1 |
| Aldrin | 0.05 | 1,2-Dichloroethane | 1 |
| BHC, alpha isomer | 0.05 | 1,2-Dichloroethene (total) | 1 |
| BHC, beta isomer | 0.05 | 1,2-Dichloropropane | 1 |
| BHC, delta isomer | 0.05 | 1,3-Dichlorobenzene | 1 |
| BHC, gamma isomer (Lindane) | 0.05 | 1,4-Dichlorobenzene | 1 |
| Chlordane | 0.2 | 2-Butanone | 20 |

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| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|-----------------------------------|------------------------------|---------------------------------|------------------------------|
| 2-Chloroethylvinylether | 20 | 2,4,6-Trichlorophenol | 5 |
| 2-Hexanone | 20 | 2,4-Dichlorophenol | 5 |
| 4-Methyl-2-pentanone | 20 | 2,4-Dimethylphenol | 5 |
| Acetone | 10 | 2,4-Dinitrophenol | 25 |
| Benzene | 1 | 2,4-Dinitrotoluene | 5 |
| Bromodichloromethane | 1 | 2,6-Dinitrotoluene | 5 |
| Bromoform | 1 | 2-Chloronaphthalene | 5 |
| Bromomethane | 2 | 2-Chlorophenol | 5 |
| Carbon disulfide | 1 | 2-Methylphenol | 5 |
| Carbon tetrachloride | 1 | 2-Methyl-4,6-dinitrophenol | 25 |
| Chlorobenzene | 1 | 2-Methylnaphthalene | 5 |
| Chloroethane | 2 | 2-Nitroaniline | 25 |
| Chloroform | 1 | 3,3'-Dichlorobenzidine | 10 |
| Chloromethane | 2 | 3-Nitroaniline | 25 |
| <i>cis</i> -1,2-Dichloroethene | 1 | 4-Bromophenylphenylether | 5 |
| <i>cis</i> -1,3-Dichloropropene | 1 | 4-Chloro-3-methylphenol | 10 |
| Dibromochloromethane | 1 | 4-Chloroaniline | 10 |
| Dibromomethane | 1 | 4-Chlorophenylphenylether | 5 |
| Dichlorodifluoromethane | 2 | 4-Nitroaniline | 25 |
| Ethylbenzene | 1 | 4-Nitrophenol | 25 |
| Freon 113 | 1 | Acenaphthene | 25 |
| Methylene chloride | 1 | Acenaphthylene | 5 |
| Styrene | 1 | Anthracene | 5 |
| Tetrachloroethene | 1 | Benzo[<i>a</i>]anthracene | 5 |
| Toluene | 1 | Benzo[<i>a</i>]pyrene | 5 |
| Total xylene isomers | 2 | Benzo[<i>b</i>]fluoranthene | 5 |
| <i>trans</i> -1,2-Dichloroethene | 1 | Benzo[<i>g,h,i</i>]perylene | 5 |
| <i>trans</i> -1,3-Dichloropropene | 1 | Benzo[<i>k</i>]fluoranthene | 5 |
| Trichloroethene | 0.5 | Benzoic acid | 25 |
| Trichlorofluoromethane | 1 | Benzyl alcohol | 10 |
| Vinyl acetate | 1 | Bis(2-chloroethoxy)methane | 5 |
| Vinyl chloride | 1 | Bis(2-chloroisopropyl)ether | 5 |
| EPA Method 625 | | Bis(2-ethylhexyl)phthalate | 5 |
| 1,2,4-Trichlorobenzene | 5 | Butylbenzylphthalate | 5 |
| 1,2-Dichlorobenzene | 5 | Chrysene | 5 |
| 1,3-Dichlorobenzene | 5 | Di- <i>n</i> -butylphthalate | 5 |
| 1,4-Dichlorobenzene | 5 | Di- <i>n</i> -octylphthalate | 5 |
| 2,4,5-Trichlorophenol | 5 | Dibenzo[<i>a,h</i>]anthracene | 5 |

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| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|---|---------------------------------|-----------------------------|---------------------------------|
| Dibenzofuran | 5 | Naled | 1 |
| Diethylphthalate | 5 | Phorate | 1 |
| Dimethylphthalate | 5 | Prothiophos | 1 |
| Fluoranthene | 5 | Ronnel | 1 |
| Fluorene | 5 | Stirophos | 1 |
| Hexachlorobenzene | 5 | Trichloronate | 1 |
| Hexachlorobutadiene | 5 | | |
| Hexachlorocyclopentadiene | 5 | EPA Method 8260 | |
| Hexachloroethane | 5 | 1,1,1,2-Tetrachloroethane | 0.5 |
| Indeno[1,2,3-c,d]p yrene | 5 | 1,1,1-Trichloroethane | 0.5 |
| Isophorone | 5 | 1,1,2,2-Tetrachloroethane | 0.5 |
| <i>m</i> - and <i>p</i> -Cresol | 5 | 1,1,2-Trichloroethane | 0.5 |
| <i>N</i> -Nitroso-di- <i>n</i> -propylamine | 5 | 1,1-Dichloroethane | 0.5 |
| Naphthalene | 5 | 1,1-Dichloroethene | 0.5 |
| Nitrobenzene | 5 | 1,2,3-Trichloropropane | 0.5 |
| Pentachlorophenol | 5 | 1,2-Dibromo-3-chloropropane | 0.5 |
| Phenanthrene | 5 | 1,2-Dichloroethane | 0.5 |
| Phenol | 5 | 1,2-Dichloroethene (total) | 0.5 |
| Pyrene | 5 | 1,2-Dichloropropane | 0.5 |
| EPA Method 632 | | 2-Butanone | 0.5 |
| Diuron | 0.1 | 2-Chloroethylvinylether | 0.5 |
| EPA Method 8082 | | 2-Hexanone | 0.5 |
| Polychlorinated biphenyls (PCBs) | 0.5 | 4-Methyl-2-pentanone | 0.5 |
| EPA Method 8140 | | Acetone | 10 |
| Bolstar | 1 | Acetonitrile | 100 |
| Chlorpyrifos | 1 | Acrolein | 50 |
| Coumaphos | 1 | Acrylonitrile | 50 |
| Demeton | 1 | Benzene | 0.5 |
| Diazinon | 1 | Bromodichloromethane | 0.5 |
| Dichlorvos | 1 | Bromoform | 0.5 |
| Disulfoton | 1 | Bromomethane | 0.5 |
| Ethoprop | 1 | Carbon disulfide | 5 |
| Fensulfothion | 1 | Carbon tetrachloride | 0.5 |
| Fenthion | 1 | Chlorobenzene | 0.5 |
| Merphos | 1 | Chloroethane | 0.5 |
| Methyl Parathion | 1 | Chloroform | 0.5 |
| Mevinphos | 1 | Chloromethane | 0.5 |
| | | Chloroprene | 5 |
| | | Dibromochloromethane | 0.5 |

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| Constituents of concern | Reporting limit (µg/L) (a,b) | Constituents of concern | Reporting limit (µg/L) (a,b) |
|-----------------------------------|------------------------------|--|--------------------------------|
| Dichlorodifluoromethane | 0.5 | 1,2,3,4,7,8-HxCDF | 0.00025 |
| Ethanol | 1000 | 1,2,3,6,7,8-HxCDD | 0.00025 |
| Ethylbenzene | 0.5 | 1,2,3,6,7,8-HxCDF | 0.00025 |
| Freon 113 | 0.5 | 1,2,3,7,8,9-HxCDD | 0.00025 |
| Methylene chloride | 0.5 | 1,2,3,7,8,9-HxCDF | 0.00025 |
| Styrene | 0.5 | 1,2,3,7,8-PeCDD | 0.0001 |
| Tetrachloroethene | 0.5 | 1,2,3,7,8-PeCDF | 0.0001 |
| Toluene | 0.5 | 2,3,4,6,7,8-HxCDF | 0.00025 |
| Total xylene isomers | 0.5 | 2,3,4,7,8-PeCDF | 0.0001 |
| Trichloroethene | 0.5 | 2,3,7,8-TCDD | 0.0001 |
| Trichlorofluoromethane | 0.5 | 2,3,7,8-TCDF | 0.0001 |
| Vinyl acetate | 20 | OCDD | 0.0005 |
| Vinyl chloride | 0.5 | OCDF | 0.0005 |
| <i>cis</i> -1,2-Dichloroethene | 0.5 | EPA Method 8330 | 5 or 1 |
| <i>cis</i> -1,3-Dichloropropene | 0.5 | HMX ^(c) | 5 or 1 |
| <i>trans</i> -1,2-Dichloroethene | 0.5 | RDX ^(d) | 5 |
| <i>trans</i> -1,3-Dichloropropene | 0.5 | TNT ^(e) | 0.0001 |
| EPA Method 8290 | | EPA Method 9131 or Standard Method 9221 | MPN^(f)/100mL |
| 1,2,3,4,6,7,8-HpCDD | 0.00025 | Fecal coliform bacteria | 1 to 2 |
| 1,2,3,4,6,7,8-HpCDF | 0.00025 | Total coliform bacteria | 1 to 2 |
| 1,2,3,4,7,8,9-HpCDF | 0.00025 | | |

- a The significant figures displayed in this table vary by constituent. These variations reflect regulatory agency permit stipulations, the applicable analytical laboratory contract under which the work was performed, or both.
- b These reporting limits are for water samples with low concentrations of dissolved solids. If higher concentrations are present, limits are likely to be higher.
- c HMX is octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine.
- d RDX is hexahydro-1,3,5-trinitro-1,3,5-triazine.
- e TNT is 2,4,6-trinitrotoluene.
- f MPN = most probable number (of organisms)

Table A-3. Radioisotopes and reporting limits for gamma spectroscopic analysis of constituents of concern in groundwater^(a)

| Constituents of concern ^(b) | Typical reporting limit (Bq/L) |
|--|--------------------------------|
| Actinium-228 | 3.1 |
| Americium-241 | 1.8 |
| Beryllium-7 | 3.7 |
| Cesium-134 | 0.4 |
| Cesium-137 | 0.3 |
| Cobalt-57 | 0.2 |
| Cobalt-60 | 0.4 |
| Europium-152 | 0.9 |
| Europium-154 | 1.0 |
| Europium-155 | 1.0 |
| Potassium-40 | 7.2 |
| Radium-226 | 0.8 |
| Thorium-228 | 0.5 |
| Thorium-234 | 1.4 |
| Uranium-235 | 1.3 |

- a The significant figures displayed in this table vary by constituents of concern. These variations reflect the applicable analytical laboratory contract under which the work was performed.
- b Not included are promethium-147 and thallium-208, reported above 46,000 and 72 Bq/L, respectively.