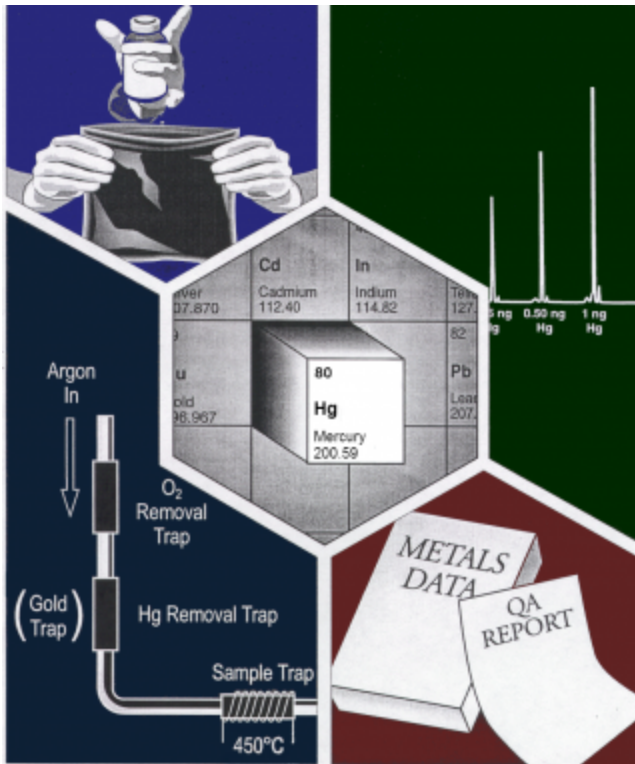


# Approved CWA Chemical Test Methods

 [epa.gov/cwa-methods/approved-cwa-chemical-test-methods](http://epa.gov/cwa-methods/approved-cwa-chemical-test-methods)

September 1, 2015



The analytical methods promulgated under Clean Water Act section 304(h) are sometimes referred to as the "304(h)" or "Part 136" methods. The methods measure chemical and biological pollutants in media, such as wastewater, ambient water, sediment, and biosolids (sewage sludge). These various CWA methods are tested in a variety of labs and matrices.

Related Information

## [Questions and Answers about Approved Methods](#)

In addition to [40 CFR Part 136](#) [Exit Exit EPA website methods](#), some approved [industry-specific methods](#) are published or incorporated by reference at 40 CFR Parts 401 through 503.

**On this page:**

## Approved Methods Listed by Method Number

Number	Method Title
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<b>Number</b>	<b>Method Title</b>
120.1	Conductance (Specific Conductance, $\mu\text{mhos}$ , 25 °C) by Conductivity Meter
130.1	Hardness, Total (mg/L as $\text{CaCO}_3$ ) (Colorimetric, Automated EDTA) by Spectrophotometer
150.2	pH, Continuous Monitoring (Electrometric) by pH Meter
160.4	Residue, Volatile (Gravimetric, Ignition at 550 °C) by Muffle Furnace
180.1	Turbidity by Nephelometry. <i>Revision 2.0</i>
300.0	Inorganic Anions by Ion Chromatography. <i>Revision 2.1</i>
300.1	Inorganic Anions in Drinking Water by Ion Chromatography. <i>Revision 1.0</i>
310.2	Alkalinity, Colorimetric, Automated Methyl Orange
335.4	Total Cyanide by Semi-Automated Colorimetry. <i>Revision 1.0</i>
350.1	Ammonia Nitrogen by Semi-Automated Colorimetry. <i>Revision 2.0</i>
351.1	Total Kjeldahl Nitrogen (Colorimetric, Automated Phenate) by Autoanalyzer
351.2	Total Kjeldahl Nitrogen by Semi-Automated Colorimetry. <i>Revision 2.0</i>
352.1	Nitrogen, Nitrate (Colorimetric, Brucine) by Spectrophotometer
353.2	Nitrate-Nitrite by Automated Colorimetry. <i>Revision 2.0</i>
365.1	Phosphorus by Semi-Automated Colorimetry. <i>Revision 2.0</i>
365.3	Phosphorus, All Forms, Colorimetric, Ascorbic Acid, Two Reagent
365.4	Phosphorus, Total, Colorimetric, Automated, Block Digester, Automated Analyzer II
375.2	Sulfate by Automated Colorimetry. <i>Revision 2.0</i>
410.3	Chemical Oxygen Demand (Titrimetric, High Level for Saline Waters) by Titration
410.4	Chemical Oxygen Demand by Semi-Automated Colorimetry. <i>Revision 2.0</i>
1627	Kinetic Test Method for the Prediction of Mine Drainage Quality
OIA-1677-09	Available Cyanide by Ligand Exchange and Flow Injection Analysis (FIA) • <a href="#">Regulatory history</a> .

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### Approved Inorganic Non-Metals Methods

- [Download the publications](#)

<b>Number</b>	<b>Method Title</b>
200.2	Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements. <i>Revision 2.8</i>
200.5	Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma-Atomic Emission Spectrometry. <i>Revision 4.2</i>
200.7	Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry. <i>Revision 4.4</i>
200.8	Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry. <i>Revision 5.4</i>
200.9	Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry. <i>Revision 2.2</i>
206.5	Arsenic, Sample Digestion Prior to Total Arsenic Analysis by Silver Diethyldithiocarbamate or Hydride Procedures
218.6	Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater by Ion Chromatography. <i>Revision 3.3</i> • <a href="#">Regulatory history</a> .
231.2	Gold, Atomic Absorption, Furnace Technique
235.2	Iridium, Atomic Absorption, Furnace Technique
245.1	Mercury in Water by Cold Vapor Atomic Absorption Spectrometry. <i>Revision 3.0</i>
245.2	Mercury, Cold Vapor Technique, Automated
245.7	Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry. <i>Revision 2.0</i> • <a href="#">Regulatory history</a> .
252.2	Osmium, Atomic Absorption, Furnace Technique
253.2	Palladium, Atomic Absorption, Furnace Technique
255.2	Platinum, Atomic Absorption, Furnace Technique
265.2	Rhodium, Atomic Absorption, Furnace Technique
267.2	Ruthenium, Atomic Absorption, Furnace Technique
279.2	Thallium, Atomic Absorption, Furnace Technique
283.2	Titanium, Atomic Absorption, Furnace Technique

Number	Method Title
289.2	Zinc, Atomic Absorption, Furnace Technique
1631E	Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry. <i>Revision E</i> • <a href="#">Regulatory history</a> .

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### Approved Metals Methods

- [Download the publications](#)

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Number	Method Title
420.1	Phenolics, Total Recoverable, Spectrophotometric, Manual 4-AAP With Distillation
420.4	Total Recoverable Phenolics by Semi-Automated Colorimetry. <i>Revision 1.0</i>
525.1	Organic Compounds in Drinking Water by Liquids-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry. <i>Revision 2.2</i>
525.2	Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry. <i>Revision 2.0</i>
601	Purgeable Halocarbons
602	Purgeable Aromatics
603	Acrolein and Acrylonitrile
604	Phenols
605	Benzidines
606	Phthalate Ester
607	Nitrosamines
608.1	Organochlorine Pesticides in Municipal and Industrial Wastewater
608.2	Certain Organochlorine Pesticides in Municipal and Industrial Wastewater
608.3	<a href="#">Organochlorine</a> Pesticides and PCBs by GC/HSD ( <i>replaces Method 608</i> )
609	Nitroaromatics and Isophorone
610	Polynuclear Aromatic Hydrocarbons
611	Haloethers

Number	Method Title
612	Chlorinated Hydrocarbons
613	2,3,7,8-Tetrachloro Dibenzo- <i>p</i> -Dioxin
614	Organophosphorus Pesticides in Municipal and Industrial Wastewater
614.1	Organophosphorus Pesticides in Municipal and Industrial Wastewater
615	Chlorinated Herbicides in Municipal and Industrial Wastewater
617	Organohalide Pesticides and PCBs in Municipal and Industrial Wastewater
619	Triazine Pesticides in Municipal and Industrial Wastewater
622	Organophosphorus Pesticides in Municipal and Industrial Wastewater
622.1	Thiophosphate Pesticides in Municipal and Industrial Wastewater
624.1	<u>Purgeables</u> by GC/MS ( <i>replaces Method 624</i> )
625.1	<u>Base/Neutrals</u> and Acids by GC/MS ( <i>replaces Method 625</i> ) <ul style="list-style-type: none"> <li>• Validation of SPE Products &amp; Associated Procedures with Method 625.1</li> </ul>
632	Carbamate and Urea Pesticides in Municipal and Industrial Wastewater
1613B	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS. <i>Revision B</i> <ul style="list-style-type: none"> <li>• <u>Regulatory History</u>.</li> </ul>
1624B	Volatile Organic Compounds by Isotope Dilution GC/MS
1625B	Semivolatile Organic Compounds by Isotope Dilution GC/MS
1664A	<i>n</i> -Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated <i>n</i> -Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry. <i>Revision A</i> <ul style="list-style-type: none"> <li>• <u>Regulatory history</u>.</li> </ul>
1664B	<i>n</i> -Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated <i>n</i> -Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry. <i>Revision B</i> <ul style="list-style-type: none"> <li>• <u>Regulatory history</u>.</li> </ul>

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### Approved Organic Methods

- [Download the publications](#)

## Approved Methods Listed by Analyte

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The lists of approved methods at 40 CFR 136.3, with footnotes, are provided here as a reference. To download specific method publications, refer to the tables.

Lists of methods by analyte; from [40 CFR 136.3](#) [Exit](#) [Exit EPA website](#)

- Table I B: Inorganics
- Table I C: Non-pesticide organics
- Table I D: Pesticides
- Table I F: Pharmaceutical
- Table I G: Pesticide active ingredients