

# List of Analytical Methods for Trade Waste

Contaminant	Container and volume required <i>Note 1</i>	Preservation	Minimum Requirement for Level of Reporting <i>Note 2</i>	Reference Method <i>Note 3</i>
<b>Acetaldehyde</b>	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	0.5 mg/L	USEPA 8315A
<b>Acetone</b>	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	40 mg/L	USEPA 8315A
<b>Aluminium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	10 mg/L	USEPA 3010A and 6010C
<b>Ammonia – (NH<sub>3</sub>-N)</b>	PET (200 mL)	Keep sample cool during collection, transport and storage. If not analysed within 24 hrs, freeze.	10 mg/L	APHA 4500-NH <sub>3</sub> -H
<b>Arsenic</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.1 mg/L	USEPA 3010A and 6010C
<b>Barium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010A and 6010C
<b>Biochemical Oxygen Demand Total - 5 day</b> Carbonaceous (CBOD <sub>5</sub> )	Glass, polyethylene or PET (1000mL)	Keep composite sampler cool during collection. Store on ice or refrigerate and ensure that no air is entrapped in the sample. Avoid direct sunlight.	10 mg/L	APHA 5210 B

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<b>Biochemical Oxygen Demand Soluble - 5 day</b> Filtered Carbonaceous (CBOD <sub>5</sub> )	Glass, polyethylene or PET (1000mL)	Keep composite sampler cool during collection. Store on ice or refrigerate and ensure that no air is entrapped in the sample. Avoid direct sunlight.	10 mg/L	APHA 5210 B
<b>Biochemical Oxygen Demand Soluble - 5 day</b> Filtered Carbonaceous (CBOD <sub>5</sub> )	Glass, polyethylene or PET (1000mL)	Keep composite sampler cool during collection. Store on ice or refrigerate and ensure that no air is entrapped in the sample. Avoid direct sunlight.	10 mg/L	APHA 5210 B
<b>Boron</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	10 mg/L	USEPA 3010A and 6010C
<b>Bromine</b>			0.5 mg/L	Under review
<b>Cadmium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.1 mg/L	USEPA 3010A and 6010C
<b>Chlorinated Phenols</b> (Phenolic Compounds)	Amber glass (100 mL)	Store on ice or refrigerate.	0.005mg/L (total)	USEPA 8041A
<b>Chlorine</b> (Total)	Polyethylene or PET (1000 mL)	Analyse immediately, preferably on site. Keep sample out of direct sunlight.	1 mg/L	APHA 4500-CI G
<b>Chromium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.3 mg/L	USEPA 3010A and 6010C

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<b>Cobalt</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010A and 6010C
<b>Copper</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010A and 6010C
<b>Cyanide</b> Amendable to Chlorination (CN-ATC)	Glass, polyethylene or PET (200 mL)	Keep composite sampler cool. Add 10 M NaOH to pH 12; keep cool during storage and transit.	0.1mg/L	APHA 4500-CN G and E
<b>Fluoride</b>	Polyethylene or PET (200 mL)	None required.	2 mg/L	APHA 4500-F C
<b>Formaldehyde</b>	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	3 mg/L	USEPA 8315A
<b>General Pesticides</b> (Excludes OC and OP)			0.01 mg/L	Under review
<b>Herbicides</b> and defoliant	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	0.01 mg/L	APHA 6640B
<b>Iron</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	5 mg/L	USEPA 3010A and 6010C
<b>Lead</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.2 mg/L	USEPA 3010A and 6010C

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<b>Lithium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	1 mg/L	USEPA 3010A and 6020A
<b>Manganese</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	1 mg/L	USEPA 3010A and 6010C
<b>Mercaptans</b>			0.1 mg/L	Under review
<b>Mercury</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.003 mg/L	USEPA 245.7
<b>Methyl Ethyl Ketone</b>	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	10 mg/L	USEPA 8315A
<b>Molybdenum</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	10 mg/L	USEPA 3010A and 6010C
<b>Nickel</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.3 mg/L	USEPA 3010A and 6010C
<b>Nitrogen – Total Kjeldahl Nitrogen</b>	Glass, Polyethylene or PET (200 mL)	Keep sample cool during collection, transport and storage. If not analysed within 24 hrs, freeze	15 mg/L	APHA 4500-N <sub>org</sub> D
<b>Oil &amp; grease</b> (Hexane extractable compounds)	Glass jar, solvent washed or baked at high temp. (1000mL)	Store on ice or refrigerate. Acidify with HCl to pH 1-2 upon receipt.	10 mg/L	APHA 5520D

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<b>Organoarsenic compounds</b>			0.01 mg/L	Under review
<b>Petroleum Hydrocarbons</b> (Flammable) - Benzene - Toluene - Ethylbenzene - Xylene	Glass, filled to zero headspace, tightly sealed lid, (1000 mL)  Glass, amber (100mL)	Fill container completely to exclude air space.	1 mg/L (total)  - 0.01 mg/L - 0.05 mg/L - 0.1 mg/L - 0.1 mg/L	USEPA 8015B  USEPA 8260B
<b>pH</b>	Glass, Polyethylene or PET (500 mL)	Store on ice or refrigerate	0.1 units	APHA 4500-H <sup>+</sup> B
<b>Phenolic compounds</b> (Non-chlorinated)	Amber glass (100 mL)	Store on ice or refrigerate.	0.1 mg/L (total)	USEPA 8041A
<b>Phosphorus</b> (Total phosphorus)	PET (200 mL)	Keep sample cool during collection, transport and storage. If not analysed within 24 hrs, freeze	5 mg/L	APHA 4500-P H and 4500-P J
<b>Polynuclear aromatic hydrocarbons</b>	Glass (1000 mL)	Store and transport on ice or refrigerated	0.5 mg/L (total)	USEPA 8310
<b>Propionaldehyde</b>	Glass, zero headspace (100 mL)	Store on ice or refrigerate.	0.5 mg/L	USEPA 8315A
<b>Selenium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010 and 6010C

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<b>Silver</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010A and 6020A
<b>Sulphate</b>	Glass, polyethylene or PET (500 mL)	Store and transport on ice or refrigerated	200 mg/L	APHA 4110B
<b>Sulphide</b>	Glass, polyethylene or PET (500 mL)	Keep composite sampler cool during collection. Completely fill the sample bottle without aeration. If sample cannot be delivered to the laboratory immediately (< 2hrs), or otherwise at the laboratory, add 4 drops zinc acetate (2M) and 4 drops 2M NaOH per 100 mL.	0.5 mg/L	APHA 4500S <sup>2-</sup> D
<b>Sulphite</b>	Glass (500 mL)	Fill sample container completely. Store and transport on ice or refrigerated. If not analysed within 24 hrs add 1mL EDTA solution per 100 mL.	5 mg/L	APHA 4500SO <sub>3</sub> B
<b>Suspended Solids (Total)</b> (TSS or NFR)	Glass, polyethylene or PET (500 mL)	Do not completely fill the bottle. Transport and store on ice or refrigerated.	60 mg/L	APHA 2540D
<b>Thiosulphate</b> (Calculated from Sulphur, Sulphide and Sulphite)	Glass (500 mL)	Fill sample container completely. Store and transport on ice or refrigerated. Must be analysed within 24 hrs.	30 mg/L	APHA 4500SO <sub>3</sub> B (Adapted for thiosulfate) USEPA 3010 and 6010C for sulphur
<b>Tin</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	1 mg/L	USEPA 3010 and 6010C

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<b>Total Dissolved Solids</b>	Glass, polyethylene or PET (500 mL)	Store on ice or refrigerate. Must be analysed within 24 hrs.	50 mg/L	APHA 2510B (Calculation from conductivity, EC * 6)
<b>Uranium</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	1 mg/L	USEPA 3010A and 6020A
<b>Volatile halocarbons</b> (Chlorinated Hydrocarbons) - <b>Chloroform</b> - <b>Perchloroethylene</b> (Tetrachloroethene) - <b>Trichloroethylene</b> (Trichloroethene)	Glass, amber (preferably obtained from testing lab), zero headspace, (100 mL)	Fill container completely to exclude air space.	0.1 mg/L (total)  - 0.01 mg/L  - 0.03 mg/L  - 0.01 mg/L	USEPA 8260B
<b>Zinc</b>	Polyethylene or PET (200 mL)	Store on ice or refrigerate. If not analysed within 24 hrs acidify to pH 1-2 with concentrated nitric acid.	0.5 mg/L	USEPA 3010 and 6010C

**Note 1** - Container and volume required are according to the specifications of Sydney Water Laboratories. Other Laboratories may have different requirements.

**Note 2** - Minimum requirement for level of reporting is 10% of acceptance standard for each contaminant.

**Note 3** - The methods quoted are the reference methods used by Sydney Water Laboratories.  
Any NATA accredited method complying with minimum requirement for level of reporting is acceptable, but Sydney Water reserves the right to audit the method validation.