

Water Compliance Sampling & Testing

Really Local. Truly Global.

Table of Contents

Emerging Contaminants	Page 4
Drinking Water Drinking Water Sampling	Page 5
Drinking Water Tests for Full MAV Compliance	
DWS-Inorg: Inorganic and Microbial Tests	
DWS-SVOC+: Semi-Volatile and Phenolic Compounds	
DWS-VOC: Volatile Organic Compounds and Epichlorohydrin	
DWS-AH: Acid Herbicides	
DWS-HAA: Halo-Acetic Acids	
DWS-NDBP: Neutral Disinfection By-Products	
DWS-Protozoa: Protozoa	
DWS-Radio: Radioactivity	
Individual Compounds: 1080, Acrylamide, EDTA	
Other Test Suites	Page 7
DWS-Inorg+: Including Tests with a Guideline Value	
DWS-THM: Trihalomethanes	
DWS-Pest: Pesticides	
DWS-TandO: Taste and Odour Causing Compounds	
Algae	
Source Water Tests for Full MAV and GV Compliance	Page 8
Cyanotoxins	Page 9
Summary of Chemical Determinands	Page 10
Wastewater Testing	Page 16
Stormwater Testing	Page 17
Sampling Wastewater and Stormwater	Page 18
Contact Us	Page 19

About Us

The Eurofins Food and Water Testing network of laboratories in New Zealand offers customers easy access to analytical testing and sampling services across the food, water, agricultural and environmental industries.

Our laboratories are strategically located in Auckland, Taupo, Hastings, Wellington, Christchurch, Queenstown, Dunedin and Invercargill, ensuring samples are processed into the laboratory as fast as possible.

Really local. Truly global

Eurofins companies in New Zealand have evolved out of local laboratory acquisitions into what we are today; a national collaboration of scientific expertise and innovation, driven by teams with a deep commitment to contributing to a safer and healthier world.

While our companies' roots are local, our expertise is global. Eurofins Scientific is an international life sciences company and the world leader in food, environmental, and pharmaceutical products testing and in agrosience Contract Research services. When you partner us, you are partnering with a leading network of international laboratories with 63,000 dedicated employees, across 950 facilities in 60 countries.

Our scope includes but is not limited to:

- Food and Feed Testing
- Fruit Quality Services
- Agricultural Testing
- Environment Testing
- Agrosience Services
- Pharma Development
- Consumer Product Testing

Emerging Contaminants

The following pages contain information about common tests that are routinely performed on drinking water, wastewater and stormwater samples. Eurofins can test for a wide range of emerging contaminants, so please contact us if you require a test not listed in this brochure, including:

- Microplastics
- 1,4-dioxane
- Personal Care Products
- Covid-19 and other viruses in wastewater and on surfaces.
- PFAS
- Pharmaceuticals
- Endocrine Disrupting Compounds

Testing Drinking Water Quality in New Zealand

The Drinking Water Standards of New Zealand (DWSNZ) includes a list of bacterial, chemical, and radiological tests which have a Maximum Allowable Value (MAV) and with which all drinking water supplies must comply.

All tests performed for the purpose of drinking water compliance must be in a facility accredited by IANZ as a Drinking Water Laboratory.

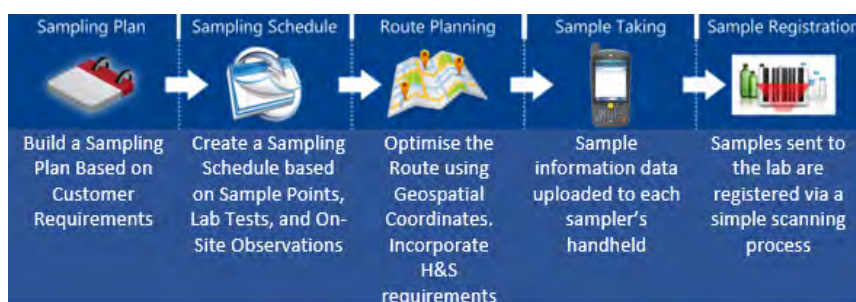
In addition to the requirements for the laboratory to be accredited, it is important that consideration is given to the sampling process, laboratory location and data delivery.

Drinking Water Sampling

When collecting samples for drinking water compliance, it is important to know if the samples were collected from the correct place, at the time stated, following the correct procedures and by a trained competent sampler. All test equipment used on site must be calibrated and fit for use.

Eurofins has developed a sampling app that answers all these questions and provides full traceability from the exact point of sampling right through to the samples' arrival at the lab. This process is automated with the data available for audits.

The app includes functions to record on-site test measurements and to collect photos and other site-specific observations. The app also includes a list of the site-specific hazards so that the sampler is aware of all on-site issues. This feature provides assurance to our council customer that samplers are following and complying with their H&S requirements.



Drinking Water Tests for Full MAV Compliance

The suites below are recommended for treated drinking water supplies.

Code	Suite Name	Tests
DWS-Inorg	Drinking Water - E. coli plus Inorganics	23
Fluoride, Nitrate, Bromate, Chlorate, Chlorite, Nitrite, Cyanide, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Uranium, Total Coliforms, E. coli, Sample Filtration		
The inorganic and microbial test suite contains 23 tests and includes 14 heavy metals (Sb, As, Ba, B, Cd, Cr, Cu, Pb, Mn, Hg, Mo, Ni, Se, and U); three disinfection by-products (Bromate, Chlorate and Chlorite); three anions (Fluoride, Nitrate and Nitrite), Cyanide and <i>E. coli</i> . Total coliforms have been included in this test suite due to the requirement to record these results.		
DWS-SVOC+	Drinking Water - SVOC plus Phenols	42
Alachlor, Aldicarb, Aldrin + Dieldrin, Atrazine, Azinphos methyl, Benzo(a)pyrene, Bromacil, Carbofuran, Chlordane, Chlorotoluron, Chlorpyrifos, Cyanazine, DDT + isomers, Di(2-ethylhexyl)phthalate, Dimethoate, Diuron, Endrin, Hexazinone, Isoproturon, Lindane, Metalaxyl, Methoxychlor, Metolachlor, Metribuzin, Molinate, Oryzalin, Oxadiazon, Pendimethalin, Pentachlorophenol , Pirimiphos methyl, Pirimisulfuron methyl, Procymidone, Propazine, Pyriproxifen, Simazine, Terbacil, Terbutylazine, Thiabendazole, 2,4,6-trichlorophenol, Trifluralin, 2-chlorophenol , 2,4-dichlorophenol		
The SVOC test suite contains 42 tests of which the three marked in blue are phenolic compounds. Thirty-seven of these are also pesticides. Benzo(a)pyrene and Di(2-ethylhexyl) phthalate are the two compounds that are not a pesticide or a phenol.		
DWS-VOC	Drinking Water - VOC, Epichlorohydrin, Trihalomethanes	31
Benzene, Bromodichloromethane, Bromoform, Carbon tetrachloride, Chloroform, 1,2-dibromo-3-chloropropane, Dibromochloromethane, 1,2-dibromoethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloroethene, Dichloromethane, 1,2-dichloropropane, 1,3-dichloropropane, 1,4-dioxane, Epichlorohydrin, Ethylbenzene, Hexachlorobutadiene, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Trihalomethanes (THMs), Vinyl chloride, Xylenes (total), Monochlorobenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene, THM MAV Sum Ratio		
The VOC suite contains 31 compounds including six pesticides and all four trihalomethanes and the MAV Sum Ratio. Four of the tests in this suite are chlorobenzenes which do not have a MAV but do have a GV and can cause taste and odour complaints in water supplies.		
Epichlorohydrin has also been included in this test suite.		
DWS-AH	Drinking Water - Acid Herbicides	9
2,4-D, 2,4-DB, Dichlorprop, Fenoprop, MCPA, Mecoprop, Picloram, 2,4,5-T, Triclopyr		
The Acid Herbicide suite contains nine compounds.		
DWS-HAA	Drinking Water - Haloacetic Acids	7
Bromochloroacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, Monobromoacetic acid, Trichloroacetic acid, Haloacetic Acid MAV Sum Ratio		

Drinking Water - Haloacetic Acids (Cont'd)

The Halo-acetic acid suite contains six compounds and a calculated MAV sum ratio. Haloacetic acids are disinfection by-products caused by the reaction between organic material disinfection chemicals such as chlorine and bromine.

Three compounds in the suite have a MAV and three do not. The three which do not are included for information. The ratio is calculated as the sum of the individual chloroacetic acids (monochloroacetic acid, dichloroacetic acid and trichloroacetic acid) divided by their respective Maximum Allowable Values (MAVs).

DWS-NDBP	Drinking Water - NDBP	2
Dibromoacetonitrile, Dichloroacetonitrile		
These compounds are halogenated acetonitriles that can be produced during the chlorination process, if certain organic compounds are also present.		

DWS-Protozoa	Drinking Water - Protozoa	2
Cryptosporidium, Giardia		
Cryptosporidium and Giardia - collectively known as Protozoa are single-celled parasitic eukaryotes that can cause illness. Eurofins tests both source water and drinking water for these organisms.		

DWS-Radio	Drinking Water - Radioactivity	2
Alpha and Beta Particle Radioactivity, Radon-222 Concentration		
Eurofins sends this test to an external lab provider.		

Individual Compounds		3
DWS-551	Pesticide 1080	
1080 is also known as sodium fluoroacetate and is used in NZ in efforts to control invasive pest populations. Eurofins tests for this compound in surface water and in drinking water supplies.		

DWS-101	Acrylamide	
The most important source of drinking-water contamination is the use of polyacrylamide flocculants containing residual levels of acrylamide monomer. Eurofins tests for this compound in drinking water supplies.		

DWS-311	EDTA (Edetic Acid)	
EDTA is used in medicine, in household cleaning products, in food production, and industrial processes. Some surface water supplies may contain EDTA, but it is not commonly found in NZ.		

Other Test Suites

The following suites can also be selected.

DWS-Inorg+	Drinking Water - E. coli plus Inorganics and GV	38
pH, Turbidity, Colour, Hydrogen Sulphide, Fluoride, Chloride, Nitrate, Sulphate, Bromate, Chlorate, Chlorite, Nitrite, Cyanide, Ammonia Nitrogen, Total Dissolved Solids, Aluminium, Antimony, Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Sodium, Zinc, Total Hardness, Uranium, Total Coliforms, E. coli, Sample Filtration		
This suite is used in place of DWS-Inorg if you want to include the 15 inorganic chemistry tests (marked in blue) that have a Guideline Value.		
DWS-THM	Drinking Water - Trihalomethanes	6
Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Trihalomethanes (THMs), THM MAV Sum Ratio		
Use this suite if you want to test only the THM compounds. Trihalomethanes are disinfection by-products that contain the halides bromine and/or chlorine. Eurofins reports all four THMs along with the sum and the MAV Sum Ratio. The ratio is calculated as the sum of the individual Trihalomethane compounds divided by their respective Maximum Allowable Values (MAVs).		
DWS-Pest	Drinking Water - Pesticides and Herbicides	52
Alachlor, Aldicarb, Aldrin + Dieldrin, Atrazine, Azinphos methyl, Bromacil, Carbofuran, Chlordane, Chlorotoluron, Chlorpyrifos, Cyanazine, 2,4-D, 2,4-DB, DDT + isomers, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,2-dichloroethane, 1,2-dichloroethene, 1,2-dichloropropane, 1,3-dichloropropene, Dichlorprop, Dimethoate, Diuron, Endrin, Fenoprop, Hexazinone, Isoproturon, Lindane, MCPA, Mecoprop, Metalaxyl, Methoxychlor, Metolachlor, Metribuzin, Molinate, Oryzalin, Oxadiazon, Pendimethalin, Pentachlorophenol, Picloram, Pirimiphos methyl, Pirimisulfuron methyl, Procymidone, Propazine, Pyriproxifen, Simazine, 2,4,5-T, Terbacil, Terbutylazine, Thiabendazole, Triclopyr, Trifluralin		
Use this suite if you want to test for all 44 pesticides and 9 herbicides (marked in blue), making a total of 53 compounds with a MAV. In addition to the DWSNZ compounds, Eurofins can analyse over 500 other compounds.		
DWS-TandO	Drinking Water - Taste and Odour Compounds	3
Geosmin, 2-Methylisoborneol, 2,4,6-Trichloroanisole		
This suite tests for three compounds that can cause drinking water to taste and smell unusual. Geosmin and 2-Methylisoborneol are non-toxic compounds that cause earthy odours in drinking water. Both compounds are produced in raw water by certain blue-green algae such as Anabaena and Phormidium as well as Actinomyces bacteria. 2,4,6-Trichloroanisole is a compound produced by fungi and bacteria whose taste is described as medicinal, phenolic, or iodine-like. It can also be detected as an earthy smell at levels as low as several parts per trillion.		
DWS-Alga	Drinking Water - Algae and Phytoplankton	>115
Algae is performed on source water and our report includes Chlorophyta, Chrysophyta, Cyanophyta, and other algae types. Get in touch with us to arrange the testing as there are several variables that need to be decided before testing begins.		

Source Water Tests for Full MAV and GV Compliance

The suites below are recommended for source water testing which includes bores and surface waters such as streams and lakes.

Code	Suite Name	Tests
DWS-Inorg+	Drinking Water - <i>E. coli</i> plus Inorganics and GV	38
pH, Turbidity, Colour, Hydrogen Sulphide, Fluoride, Chloride, Nitrate, Sulphate, Bromate, Chlorate, Chlorite, Nitrite, Cyanide, Ammonia Nitrogen, Total Dissolved Solids, Aluminium, Antimony, Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Sodium, Zinc, Total Hardness, Uranium, Total Coliforms, <i>E. coli</i> , Sample Filtration		
DWS-SVOC+	Drinking Water - SVOC plus Phenols	42
Alachlor, Aldicarb, Aldrin + Dieldrin, Atrazine, Azinphos methyl, Benzo(a)pyrene, Bromacil, Carbofuran, Chlordane, Chlorotoluron, Chlorpyrifos, Cyanazine, DDT + isomers, Di(2-ethylhexyl)phthalate, Dimethoate, Diuron, Endrin, Hexazinone, Isoproturon, Lindane, Metalaxyl, Methoxychlor, Metolachlor, Metribuzin, Molinate, Oryzalin, Oxadiazon, Pendimethalin, Pentachlorophenol, Pirimiphos methyl, Pirimisulfuron methyl, Procymidone, Propazine, Pyriproxifen, Simazine, Terbacil, Terbutylazine, Thiabendazole, 2,4,6-trichlorophenol, Trifluralin, 2-chlorophenol, 2,4-dichlorophenol		
DWS-VOCS	Drinking Water - VOC, Epichlorohydrin	27
Benzene, Bromodichloromethane, Bromoform, Carbon tetrachloride, Chloroform, 1,2-dibromo-3-chloropropane, Dibromochloromethane, 1,2-dibromoethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloroethene, Dichloromethane, 1,2-dichloropropane, 1,3-dichloropropene, 1,4-dioxane, Epichlorohydrin, Ethylbenzene, Hexachlorobutadiene, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Trihalomethanes (THMs), Vinyl chloride, Xylenes (total), Monochlorobenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene, THM MAV Sum Ratio		
DWS-AH	Drinking Water - Acid Herbicides	9
2,4-D, 2,4-DB, Dichlorprop, Fenoprop, MCPA, Mecoprop, Picloram, 2,4,5-T, Triclopyr		
DWS-ProtozoS	Drinking Water - Protozoa	2
Cryptosporidium, Giardia		
DWS-Radio	Drinking Water - Radioactivity	2
Alpha and Beta Particle Radioactivity, Radon-222 Concentration		
Individual Compounds		3
DWS-551	Pesticide 1080	
DWS-311	EDTA (Edetic Acid)	

Cyanotoxins

The DWSNZ lists seven cyanotoxins, although there are no New Zealand labs currently accredited to test Anatoxin-a(s) or Saxitoxins.

Anatoxin-a	Anatoxin-a(s)	Cylindrospermopsin
Homoanatoxin-a	Microcystins	Nodularin
Saxitoxins		

Cyanotoxin Fresh Water Test Strips

Eurofins offers for sale, easy to use strip tests for the detection of cyanotoxins. If the sample contains toxin over the DWSNZ limits, these kits will provide a positive result even if there are no visible algal cells in the sample.

The tests include internal controls and can be used as field tests with the requirement of laboratory equipment. Microcystin test strips are available for drinking (source and finished) recreational and marine/brackish waters.

The test can be performed in the field in real time, and if it returns a positive result then a further sample can be collected and sent to an IANZ-accredited laboratory.

Summary of Chemical Determinands

[illegible]

Test Details			Limits		Eurofins Test Suite									DWO Details	
Test Code	Test Description	Det Limit	MAV	GV	Inorg	Inorg + GV	SVOC	VOC+	Pesticides	Acid Herbs	THM	HAA	Single	DWOL Test	DWOL Method
6011	Chromium	<0.001 g/m³	0.05		Yes	Yes								Cr	ICPMS
6013	Copper	<0.0005 g/m³	2	1	Yes	Yes								Cu	ICPMS
6017	Iron	<0.01 g/m³		0.2		Yes								Fe	ICPMS
6018	Lead	<0.0005 g/m³	0.01		Yes	Yes								Pb	ICPMS
6021	Manganese	<0.0005 g/m³	0.4	0.04	Yes	Yes								Mn	ICPMS
6022	Mercury	<0.0005 g/m³	0.007		Yes	Yes								Hg	ICPMS
6023	Molybdenum	<0.0005 g/m³	0.07		Yes	Yes								Mo	ICPMS
6024	Nickel	<0.0005 g/m³	0.08		Yes	Yes								Ni	ICPMS
6028	Selenium	<0.002 g/m³	0.01		Yes	Yes								Se	ICPMS
6031	Sodium	<0.01 g/m³		200		Yes								Na	ICPMS
6038	Zinc	<0.002 g/m³		1.5		Yes								Zn	ICPMS
6043	Total Hardness	<1 g CaCO3/m³		300		Yes								THARD	ICPMS
6047	Uranium	<0.0002 g/m³	0.02		Yes	Yes								U	ICPMS
0058B	Free Available Chlorine Equivalent	<0.05 g/m³		>0.2										FACE	CALC
0058H	Free Available Chlorine	<0.05 g/m³	5	> 0.2										FAC	DPD
DWS-101	Acrylamide	<0.0001 mg/L	0.0005										Yes	Acryld	LLEGCM
DWS-106	Alachlor	<0.001 mg/L	0.02				Yes		Yes					ALACHL	LLEGCM
DWS-111	Aldicarb	<0.006 mg/L	0.01				Yes		Yes					Aldic	LLEGCM
DWS-116	Aldrin + Dieldrin	<0.00003 mg/L	0.00004				Yes		Yes					ALDIEL	LLEGCM
DWS-131	Atrazine	<0.001 mg/L	0.002				Yes		Yes					ATRAZ	LLEGCM
DWS-136	Azinphos methyl	<0.001 mg/L	0.004				Yes		Yes					AZINPH	LLEGCM
DWS-141	Benzene	<0.0005 mg/L	0.01					Yes						BENZ	SHSGCM
DWS-146	Benzo(a)pyrene	<0.0001 mg/L	0.0007				Yes							BZAPY	LLEGCM
DWS-151	Bromacil	<0.001 mg/L	0.4				Yes		Yes					BROMAC	LLEGCM

Test Details			Limits		Eurofins Test Suite									DWO Details	
Test Code	Test Description	Det Limit	MAV	GV	Inorg	Inorg + GV	SVOC	VOC+	Pesticides	Acid Herbs	THM	HAA	Single	DWOL Test	DWOL Method
DWS-156	Bromodichloromethane	<0.0005 mg/L	0.06					Yes			Yes			CHBCI2	SHSGCM
DWS-161	Bromoform	<0.0005 mg/L	0.1					Yes			Yes			CHBr3	SHSGCM
DWS-166	Carbofuran	<0.001 mg/L	0.008				Yes		Yes					CARBOF	LLEGCM
DWS-171	Carbon tetrachloride	<0.0005 mg/L	0.005					Yes						CCI4	SHSGCM
DWS-176	Chlordane	<0.0001 mg/L	0.0002				Yes		Yes					Chlord	LLEGCM
DWS-181	Chloroform	<0.0005 mg/L	0.4					Yes			Yes			CHCI3	SHSGCM
DWS-186	Chlorotoluron	<0.0001 mg/L	0.04				Yes		Yes					CHLOTO	LLEGCM
DWS-191	Chlorpyrifos	<0.001 mg/L	0.04				Yes		Yes					CPYF	LLEGCM
DWS-196	Cyanazine	<0.0007 mg/L	0.0007				Yes		Yes					CYANZN	LLEGCM
DWS-206	2,4-D	<0.0005 mg/L	0.04							Yes				24D	LCMSMS
DWS-211	2,4-DB	<0.005 mg/L	0.1							Yes				24DB	LCMSMS
DWS-216	DDT + isomers	<0.001 mg/L	0.001				Yes		Yes					DDT	LLEGCM
DWS-221	Di(2-ethylhexyl)phthalate	<0.005 mg/L	0.009				Yes							D2EHPT	LLEGCM
DWS-226	1,2-dibromo-3-chloropropane	<0.0005 mg/L	0.001					Yes	Yes					12B3CP	SHSGCM
DWS-231	Dibromoacetone	<0.0005 mg/L	0.08											DBACNI	LLEGCM
DWS-236	Dibromochloromethane	<0.0005 mg/L	0.15					Yes			Yes			CHB2CL	SHSGCM
DWS-241	1,2-dibromoethane	<0.0002 mg/L	0.0004					Yes	Yes					12BE	SHSGCM
DWS-246	Dichloroacetic acid	<0.005 mg/L	0.05									Yes		DCA	LLGCEC
DWS-251	Dichloroacetonitrile	<0.001 mg/L	0.02											DCACNI	LLEGCM
DWS-256	1,2-dichlorobenzene	<0.0005 mg/L	1.5	0.001				Yes						12CBZ	SHSGCM
DWS-261	1,4-dichlorobenzene	<0.0005 mg/L	0.4	0.0003				Yes						14CBZ	SHSGCM
DWS-266	1,2-dichloroethane	<0.0005 mg/L	0.03					Yes	Yes					12CE	SHSGCM
DWS-271	1,2-dichloroethene	<0.001 mg/L	0.06					Yes	Yes					12CE	SHSGCM
DWS-276	Dichloromethane	<0.005 mg/L	0.02					Yes						CH2CI2	SHSGCM

Test Details			Limits		Eurofins Test Suite									DWO Details	
Test Code	Test Description	Det Limit	MAV	GV	Inorg	Inorg + GV	SVOC	VOC+	Pesticides	Acid Herbs	THM	HAA	Single	DWOL Test	DWOL Method
DWS-281	1,2-dichloropropane	<0.0005 mg/L	0.05					Yes	Yes					12CP	SHSGCM
DWS-286	1,3-dichloropropene	<0.0005 mg/L	0.02					Yes	Yes					13CEE	SHSGCM
DWS-291	Dichlorprop	<0.0005 mg/L	0.1							Yes				DCPROP	LCMSMS
DWS-296	Dimethoate	<0.001 mg/L	0.008				Yes		Yes					DMEOAT	LLEGCM
DWS-301	1,4-dioxane	<0.04 mg/L	0.05					Yes						14Diox	SHSGCM
DWS-306	Diuron	<0.0001 mg/L	0.02				Yes		Yes					DIURON	LLEGCM
DWS-311	EDTA	<0.001 mg/L	0.7										Yes	EDTA	LLEGCM
DWS-316	Endrin	<0.0007 mg/L	0.001				Yes		Yes					ENDRIN	LLEGCM
DWS-321	Epichlorohydrin	<0.0001 mg/L	0.0005					Yes						Epichl	LLLCMS
DWS-326	Ethylbenzene	<0.0005 mg/L	0.3	0.002				Yes						EBZ	SHSGCM
DWS-331	Fenoprop	<0.0005 mg/L	0.01							Yes				Fenopr	LCMSMS
DWS-336	Hexachlorobutadiene	<0.0005 mg/L	0.0007					Yes						HEXCBD	SHSGCM
DWS-341	Hexazinone	<0.001 mg/L	0.4				Yes		Yes					HEXAZN	LLEGCM
DWS-351	Isoproturon	<0.001 mg/L	0.01				Yes		Yes					ISOPRO	LLLCMS
DWS-356	Lindane	<0.001 mg/L	0.002				Yes		Yes					LINDAN	LLEGCM
DWS-361	MCPA	<0.0005 mg/L	0.002							Yes				MCPA	LCMSMS
DWS-366	Mecoprop	<0.0005 mg/L	0.01							Yes				MECO	LCMSMS
DWS-371	Metalaxyl	<0.001 mg/L	0.1				Yes		Yes					METAXL	LLEGCM
DWS-376	Methoxychlor	<0.001 mg/L	0.02				Yes		Yes					MOXYCL	LLEGCM
DWS-381	Metolachlor	<0.001 mg/L	0.01				Yes		Yes					Metola	LLEGCM
DWS-386	Metribuzin	<0.001 mg/L	0.07				Yes		Yes					METBZN	LLEGCM
DWS-396	Molinate	<0.001 mg/L	0.007				Yes		Yes					Molina	LLEGCM
DWS-401	Monochloroacetic acid	<0.005 mg/L	0.02									Yes		CACA	LLGCEC
DWS-416	Oryzalin	<0.01 mg/L	0.4				Yes		Yes					ORYZLN	LLEGCM

Test Details			Limits		Eurofins Test Suite									DWO Details	
Test Code	Test Description	Det Limit	MAV	GV	Inorg	Inorg + GV	SVOC	VOC+	Pesticides	Acid Herbs	THM	HAA	Single	DWOL Test	DWOL Method
DWS-421	Oxadiazon	<0.001 mg/L	0.2				Yes		Yes					OXADZN	LLEGCM
DWS-426	Pendimethalin	<0.001 mg/L	0.02				Yes		Yes					Pendim	LLEGCM
DWS-431	Pentachlorophenol	<0.0005 mg/L	0.009				Yes		Yes					PCP	LCMSMS
DWS-436	Picloram	<0.005 mg/L	0.2							Yes				PICLOR	LCMSMS
DWS-441	Pirimiphos methyl	<0.001 mg/L	0.1				Yes		Yes					PIRIMM	LLEGCM
DWS-446	Pirimisulfuron methyl	<0.01 mg/L	0.9				Yes		Yes					PIRSUL	GCMSMS
DWS-451	Procymidone	<0.001 mg/L	0.7				Yes		Yes					PROCYM	LLEGCM
DWS-456	Propazine	<0.001 mg/L	0.07				Yes		Yes					PROPZN	LLEGCM
DWS-461	Pyriproxifen	<0.001 mg/L	0.4				Yes		Yes					Pyprox	LLLCMS
DWS-471	Simazine	<0.001 mg/L	0.002				Yes		Yes					SIMAZN	LLEGCM
DWS-476	Styrene	<0.0005 mg/L	0.03	0.004				Yes						Styren	SHSGCM
DWS-481	2,4,5-T	<0.0005 mg/L	0.01							Yes				245T	LCMSMS
DWS-486	Terbacil	<0.001 mg/L	0.04				Yes		Yes					Terbcl	LLEGCM
DWS-491	Terbutylazine	<0.001 mg/L	0.008				Yes		Yes					TERBAZ	LLEGCM
DWS-496	Tetrachloroethene	<0.0005 mg/L	0.05					Yes						T4CE	SHSGCM
DWS-501	Thiabendazole	<0.001 mg/L	0.4				Yes		Yes					THIBZL	GCMSMS
DWS-506	Toluene	<0.0005 mg/L	0.8	0.03				Yes						TOLUEN	SHSGCM
DWS-511	Trichloroacetic acid	<0.05 mg/L	0.2									Yes		TCA	LLGCEC
DWS-516	Trichloroethene	<0.0005 mg/L	0.02					Yes						T3CEE	SHSGCM
DWS-521	2,4,6-trichlorophenol	<0.005 mg/L	0.2	0.002			Yes							246CPH	LCMSMS
DWS-526	Triclopyr	<0.0005 mg/L	0.1							Yes				TRICHL	LCMSMS
DWS-531	Trifluralin	<0.001 mg/L	0.03				Yes		Yes					TRIFLU	LLEGCM
DWS-536	Trihalomethanes (THMs)	<0.002 mg/L	1					Yes			Yes			THM	CALC
DWS-541	Vinyl chloride	<0.0003 mg/L	0.0003					Yes						VINYLC	SHSGCM

Test Details			Limits		Eurofins Test Suite									DWO Details	
Test Code	Test Description	Det Limit	MAV	GV	Inorg	Inorg + GV	SVOC	VOC+	Pesticides	Acid Herbs	THM	HAA	Single	DWOL Test	DWOL Method
DWS-546	Xylenes (total)	<0.0015 mg/L	0.6	0.02				Yes						Xylene	SHSGCM
DWS-551	1080	<0.0005 mg/L	0.0035										Yes	1080	LCMSMS
DWS-556	2-chlorophenol	<0.01 mg/L		0.01			Yes							2CPH	LCMSMS
DWS-561	2,4-dichlorophenol	<0.005 mg/L		0.04			Yes							24CPH	LCMSMS
DWS-566	Monochlorobenzene	<0.0005 mg/L		0.01				Yes						CBZ	SHSGCM
DWS-571	1,2,3-trichlorobenzene	<0.0005 mg/L		0.01				Yes						123CBZ	SHSGCM
DWS-576	1,2,4-trichlorobenzene	<0.0005 mg/L		0.005				Yes						124CBZ	SHSGCM
DWS-581	1,3,5-trichlorobenzene	<0.0005 mg/L		0.05				Yes						135CBZ	SHSGCM
DWS-586	Haloacetic Acid MAV Sum Ratio	<0.3	1									Yes		MAVHAA	CALC
DWS-591	Trihalomethane MAV Sum Ratio	<0.018	1								Yes			MAVHAA	CALC

Testing Wastewater Quality in New Zealand

Sewage treatment processes are essentially the same all around the world. The system relies heavily on bacteria to process the solids and liquid portions of the waste.

Systems can include large ponding areas and wetlands, as well as compact systems relying on mechanical processes.

Treatment sewage plants require laboratory testing from the start of the process to the end.

As the effluent leaves the treatment plant, it will either be discharged into a freshwater or marine environment or sprayed across land as a fertiliser.

This discharge activity is consented and requires an IANZ-accredited laboratory to perform the testing and reporting.

Contaminant Type	Tests Include
Solids	Total Suspended Solids Total Solids Volatile Solids Total Sediment Concentration
Heavy Metals	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc
Nutrients	Phosphorus Nitrogen Ammonia
Bacteria	Faecal Coliforms Enterococci
Others	UV Transmissivity Oxygen Demand (Chemical or Biological) Phenol Cyanide Oil and Grease

Testing Stormwater Quality in New Zealand

Stormwater is the name for the rainwater that falls on urban areas and is piped into streams to avoid flooding. All cities and towns in New Zealand have extensive stormwater networks to divert rainwater from hard surfaces such as roads, roofs, and industrial concreted areas.

As it passes over the hard surfaces on our urban environment, the rainwater absorbs solids, heavy metals, nutrients, hydrocarbons, bacteria, and other polluting compounds. These contaminants differ according to what the rain flows over on its way.

Rainwater that flows over industrial sites such as forecourts, carparks, and manufacturing areas should be tested for the contaminants likely to be found at that site. Companies with large areas of hard surfaces will be required to perform regular stormwater testing during rainfall events.

As all stormwater ends up in the natural environment, such as streams and rivers, and ultimately in the ocean, it is important to test its quality using an IANZ-accredited laboratory.

Contaminant Type	Tests Include
Solids	Total Suspended Solids Total Solids Total Sediment Concentration
Heavy Metals	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc
Nutrients	Phosphorus Nitrogen
Hydrocarbons	Total Petroleum Hydrocarbons Oil and Grease
Bacteria	Faecal Coliforms Enterococci
Others	pH Colour Turbidity Oxygen Demand (Chemical or Biological) Pesticides Herbicides

Sampling Wastewater and Stormwater

Eurofins has identified the sampling technique as a major contributor to inaccuracy to expected results, and has developed several sampling techniques to minimise the risk associated with this part of the process.

Stormwater

Stormwater should be sampled as soon after the rainfall starts as possible: this is called a First Flush sample. The challenge with this technique is that a sampler must be on-site when the rain starts. This can be difficult, so autosamplers with in-built rain-gauges can be used.

Wastewater

Eurofins recommends one of three techniques depending on the situation.

- Three grab samples of the discharge are taken at intervals of not less than one minute or more than five minutes. These are combined using equal volumes of all three samples to obtain an instantaneous sample.
- A four-hour average sample is prepared by taking not less than 12 grab samples over a continuous four-hour period. The intervals between the samples must not be less than five minutes nor more than 30 minutes. The samples are mixed using equal volumes of all samples to obtain the four-hour average sample.
- A twenty-four-hour flow proportionate sample is obtained from no less than 18 grab samples over a continuous twenty-four-hour period.

We recommend a combination of manual and autosampler techniques to collect representative samples in order to meet consent criteria. We can offer advice about pre-programming the autosamplers to collect samples on a particular day on a time or flow basis.

NOTE: Wastewater and stormwater can contain particularly toxic and dangerous compounds, including viruses, so it is important that Health and Safety procedures are followed at all times.



Contact

Telephone: 0800 387 63467
Email: ASMNZ@eurofinsanz.com
Web: www.eurofins.co.nz

Courier

Auckland
35 O'Rorke Road, Penrose, Auckland 1061

Taupo
150 Rickit Street, Taupo 3330

Wellington
85 Port Road, Seaview, Lower Hutt 5010

Hastings
1139 Maraekakaho Road, Longlands, Hastings 4175

Christchurch
43 Detroit Drive, Rolleston 7675

Queenstown
74 Glenda Drive, Queenstown, 9371

Dunedin
16 Lorne Street, South Dunedin 9012

Invercargill
142 Esk Street, Invercargill, 9810

