

Certificate of Analysis

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Client:	Western BOP District Council	Lab No:	3677890	DWMAVUPv1
Contact:	Erika MacGregor C/- Western BOP District Council Private Bag 12803 Tauranga Mail Centre Tauranga 3143	Date Received:	24-Sep-2024	
		Date Reported:	08-Oct-2024	
		Quote No:	133409	
		Order No:	67354	
		Client Reference:	WSZ and CSZ 2 yearly bore testing part 1	
		Submitted By:	Erika MacGregor	

Sample Type: Aqueous

Sample Name:		Athenree Quarry Bore North 23-Sep-2024 10:40 am	Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.1		
Individual Tests				
Total Alkalinity	g/m ³ as CaCO ₃	63.3 ± 2.7	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.027	-	-
Bicarbonate	g/m ³ at 25°C	77.0 ± 3.9	-	-
Free Carbon Dioxide	g/m ³ at 25°C	4.7 ± 2.2	-	-
Total Hardness	g/m ³ as CaCO ₃	46.1 ± 2.1	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	175 ± 23	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Total Boron	g/m ³	0.0226 ± 0.0047	2.4	No
Total Calcium	g/m ³	9.53 ± 0.39	-	-
Total Magnesium	g/m ³	5.41 ± 0.44	-	-
Dissolved Molybdenum	g/m ³	< 0.0002 ± 0.00014	-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-
Total Zinc	g/m ³	0.0088 ± 0.0011	-	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No
Fluoride	g/m ³	0.066 ± 0.041	1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-	-
Reactive Silica	g/m ³ as SiO ₂	69.6 ± 1.4	-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0030 ± 0.0021	-	-
Transmittance at 254 nm*	%T, 1 cm cell	99.3	-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0024 ± 0.0021	-	-
Transmittance at 270 nm*	%T, 1 cm cell	99.4	-	-
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-
Enterococci	cfu / 100mL	< 1 #1	-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024	-	-
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.1	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No

Sample Type: Aqueous				
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Lab Number:	3677890.1			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.000018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.000018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.000018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.000011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.3	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-

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OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No	
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-	
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-	
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-	
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No	
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-	
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033	0.4	No	
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Simazine	g/m ³	< 0.00004 ± 0.000013	0.002	No	
Simetryn	g/m ³	< 0.00004 ± 0.000022	-	-	
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056	-	-	
TCMTB [2-(thiocyanomethylthio)benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032	-	-	
Tebuconazole	g/m ³	< 0.00004 ± 0.000059	-	-	
Terbacil	g/m ³	< 0.00004 ± 0.000032	0.04	No	
Terbumeton	g/m ³	< 0.00004 ± 0.000021	-	-	
Terbuthylazine	g/m ³	< 0.00002 ± 0.000079	0.008	No	
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038	-	-	
Terbutryn	g/m ³	< 0.00004 ± 0.000023	-	-	
Thiabendazole	g/m ³	< 0.0002 ± 0.000063	0.4	No	
Thiobencarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019	-	-	
Triazophos	g/m ³	< 0.00004 ± 0.000032	-	-	
Trifluralin	g/m ³	< 0.00004 ± 0.000027	0.03	No	
Vinclozolin	g/m ³	< 0.00004 ± 0.000048	-	-	
Hydrogen sulphide trace level profile*					
pH	pH Units	7.4 ± 0.2	-	-	
Electrical Conductivity (EC)	mS/m	19.2 ± 0.4	-	-	
Sample Temperature*	°C	20.0	-	-	
Un-ionised hydrogen sulphide	g/m ³	< 0.002	-	-	
Total Sulphide	g/m ³	< 0.002 ± 0.0014	-	-	
Acid Herbicides Screen in Water by LCMSMS					
Acifluorfen	g/m ³	< 0.0004 ± 0.00021	-	-	
Bentazone	g/m ³	< 0.0004 ± 0.00021	-	-	
Bromoxynil	g/m ³	< 0.0004 ± 0.00021	-	-	
Clopyralid	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021	0.04	No	
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0006 ± 0.00025	0.1	No	
Dicamba	g/m ³	< 0.0006 ± 0.00021	-	-	
Dichlorprop	g/m ³	< 0.0004 ± 0.00021	0.1	No	
Fluazifop	g/m ³	< 0.0004 ± 0.00021	-	-	
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021	-	-	
Haloxypop	g/m ³	< 0.0004 ± 0.00021	-	-	
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021	0.8	No	
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021	-	-	
Mecoprop	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Oryzalin	g/m ³	< 0.0006 ± 0.00023	0.4	No	
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021	-	-	
2,4,5-Trichlorophenoxypropionic acid (245TP, Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021	0.01	No	
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021	0.009	No	
Picloram	g/m ³	< 0.0004 ± 0.00021	0.2	No	
Quizalofop	g/m ³	< 0.0004 ± 0.00021	-	-	

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Lab Number:	3677890.1			
Acid Herbicides Screen in Water by LCMSMS				
Triclopyr	g/m ³	< 0.0004 ± 0.00021	0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-
Carbofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-
Chlozolinate	g/m ³	< 0.00004 ± 0.000022	-	-
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-
EPN	g/m ³	< 0.00004 ± 0.000026	-	-
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-
Fenvalerate (including Esfenvalerate)	g/m ³	< 0.00004 ± 0.000021	-	-
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-
Nitrothal-isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-
Propham	g/m ³	< 0.00004 ± 0.000023	-	-
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-

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Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in Water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006 ± 0.000017	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00005 ± 0.000030	-	-
Phenanthrene	g/m ³	< 0.000006 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				

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Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.03	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-

Sample Type: Aqueous				
Sample Name:	Athenree Quarry Bore North 23-Sep-2024 10:40 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.1			
Ketones in VOC Water by Headspace GC-MS				
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.0031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-
Trihalomethanes in VOC Water by Headspace GC-MS				
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No
Bromoform (tribromomethane)	g/m ³	< 0.0003 ± 0.00030	0.1	No
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-
Sample Name:	Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.2			
Individual Tests				
Total Alkalinity	g/m ³ as CaCO ₃	72.7 ± 3.0	-	-
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.056	-	-
Bicarbonate	g/m ³ at 25°C	88.2 ± 4.5	-	-
Free Carbon Dioxide	g/m ³ at 25°C	2.9 ± 1.4	-	-
Total Hardness	g/m ³ as CaCO ₃	37.1 ± 1.8	-	-
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-
Total Dissolved Solids (TDS)	g/m ³	175 ± 23	-	-
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-
Total Boron	g/m ³	0.0326 ± 0.0058	2.4	No
Total Calcium	g/m ³	7.14 ± 0.29	-	-
Total Magnesium	g/m ³	4.69 ± 0.38	-	-
Dissolved Molybdenum	g/m ³	0.00037 ± 0.00015	-	-
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-
Total Zinc	g/m ³	0.00337 ± 0.00078	-	-
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No
Fluoride	g/m ³	0.145 ± 0.044	1.5	No
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-	-
Reactive Silica	g/m ³ as SiO ₂	80.3 ± 1.7	-	-
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-	-
Absorbance at 254 nm	AU cm ⁻¹	0.0090 ± 0.0022	-	-
Transmittance at 254 nm*	%T, 1 cm cell	97.9	-	-
Absorbance at 270 nm	AU cm ⁻¹	0.0086 ± 0.0023	-	-
Transmittance at 270 nm*	%T, 1 cm cell	98.1	-	-
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-
Enterococci	cfu / 100mL	< 1 #1	-	-
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No
Atrazine	g/m ³	< 0.00004 ± 0.000024	-	-
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-
Azaconazole	g/m ³	< 0.00002 ± 0.000071	-	-
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.1	No
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-

Sample Type: Aqueous				
Sample Name:	Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.2			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Captan	g/m ³	< 0.00008 ± 0.000060	-	-
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-
Carbofenthiion	g/m ³	< 0.00004 ± 0.000022	-	-
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.3	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-

Sample Type: Aqueous					
Sample Name:		Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.2			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Propachlor	g/m ³	< 0.00004 ± 0.000024		-	-
Propanil	g/m ³	< 0.0002 ± 0.000056		-	-
Propazine	g/m ³	< 0.00002 ± 0.000020		0.07	No
Propiconazole	g/m ³	< 0.00004 ± 0.000033		-	-
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033		0.4	No
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022		-	-
Simazine	g/m ³	< 0.00004 ± 0.000013		0.002	No
Simetryn	g/m ³	< 0.00004 ± 0.000022		-	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056		-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	g/m ³	< 0.00008 ± 0.000032		-	-
Tebuconazole	g/m ³	< 0.00004 ± 0.000059		-	-
Terbacil	g/m ³	< 0.00004 ± 0.000032		0.04	No
Terbumeton	g/m ³	< 0.00004 ± 0.000021		-	-
Terbutylazine	g/m ³	< 0.00002 ± 0.0000079		0.008	No
Terbutylazine-desethyl	g/m ³	< 0.00004 ± 0.000038		-	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023		-	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063		0.4	No
Thiobencarb	g/m ³	< 0.00004 ± 0.000022		-	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019		-	-
Triazophos	g/m ³	< 0.00004 ± 0.000032		-	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027		0.03	No
Vinclozolin	g/m ³	< 0.00004 ± 0.000048		-	-
Hydrogen sulphide trace level profile*					
pH	pH Units	7.7 ± 0.2		-	-
Electrical Conductivity (EC)	mS/m	20.9 ± 0.5		-	-
Sample Temperature*	°C	20.0		-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002		-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014		-	-
Acid Herbicides Screen in Water by LCMSMS					
Acifluorfen	g/m ³	< 0.0004 ± 0.00021		-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021		-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021		-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021		-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021		0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0006 ± 0.00025		0.1	No
Dicamba	g/m ³	< 0.0006 ± 0.00021		-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021		0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021		-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021		-	-
Haloxypop	g/m ³	< 0.0004 ± 0.00021		-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021		0.8	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021		-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021		0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023		0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021		-	-
2,4,5-Trichlorophenoxypropionic acid (245TP, Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021		0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021		0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021		0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021		0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021		-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021		0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					

Sample Type: Aqueous					
Sample Name:		Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.2			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Bendiocarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Benodanil	g/m ³	< 0.00008 ± 0.000039	-	-	
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079	-	-	
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-	
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-	
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-	
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-	
Carbofenthiion	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-	
Chlozolinat	g/m ³	< 0.00004 ± 0.000022	-	-	
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-	
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-	
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-	
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-	
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-	
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-	
EPN	g/m ³	< 0.00004 ± 0.000026	-	-	
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-	
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-	
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-	
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-	
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-	
Fensulfothion	g/m ³	< 0.00004 ± 0.000026	-	-	
Fenvalerate (including Esfenvalerate)	g/m ³	< 0.00004 ± 0.000021	-	-	
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-	
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-	
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-	
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-	
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-	
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-	
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-	
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-	
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-	
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-	
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-	
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-	
Nitrothal-isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-	
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-	
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-	
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-	
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-	
Propham	g/m ³	< 0.00004 ± 0.000023	-	-	
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-	
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Pyrifenox	g/m ³	< 0.00004 ± 0.000052	-	-	
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-	
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-	
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-	
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-	

Sample Type: Aqueous				
Sample Name:	Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.2			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq				
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-
Organochlorine Pesticides Trace in Water, By Liq/Liq				
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-
Total DDT Isomers	g/m ³	< 0.00006 ± 0.000017	0.001	No
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq				
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-
Naphthalene	g/m ³	< 0.00005 ± 0.000030	-	-
Phenanthrene	g/m ³	< 0.000006 ± 0.000013	-	-
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-
BTEX in VOC Water by Headspace GC-MS				
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No

Sample Type: Aqueous				
Sample Name:	Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.2			
Halogenated Aliphatics in VOC Water by Headspace GC-MS				
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.03	No
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No
Halogenated Aromatics in VOC Water by Headspace GC-MS				
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS				
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-
Ketones in VOC Water by Headspace GC-MS				
Acetone	g/m ³	< 0.05 ± 0.034	-	-
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-

Sample Type: Aqueous					
Sample Name:		Athenree Quarry Bore South 23-Sep-2024 11:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.2			
Trihalomethanes in VOC Water by Headspace GC-MS					
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No	
Bromoform (tribromomethane)	g/m ³	< 0.0003 ± 0.00030	0.1	No	
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No	
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No	
Other VOC in Water by Headspace GC-MS					
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-	
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-	
Sample Name:		Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.3			
Individual Tests					
Total Alkalinity	g/m ³ as CaCO ₃	62.1 ± 2.6	-	-	
Carbonate	g/m ³ at 25°C	< 1.0 ± 0.015	-	-	
Bicarbonate	g/m ³ at 25°C	75.6 ± 3.9	-	-	
Free Carbon Dioxide	g/m ³ at 25°C	8.1 ± 3.8	-	-	
Total Hardness	g/m ³ as CaCO ₃	29.1 ± 1.5	-	-	
Total Suspended Solids	g/m ³	< 3 ± 2.1	-	-	
Total Dissolved Solids (TDS)	g/m ³	198 ± 25	-	-	
Dissolved Aluminium	g/m ³	< 0.003 ± 0.0021	-	-	
Total Boron	g/m ³	0.0429 ± 0.0070	2.4	No	
Total Calcium	g/m ³	5.10 ± 0.21	-	-	
Total Magnesium	g/m ³	3.97 ± 0.32	-	-	
Dissolved Molybdenum	g/m ³	0.00052 ± 0.00016	-	-	
Dissolved Selenium	g/m ³	< 0.0010 ± 0.00067	-	-	
Dissolved Silver	g/m ³	< 0.00010 ± 0.000067	-	-	
Dissolved Tin	g/m ³	< 0.0005 ± 0.00034	-	-	
Total Zinc	g/m ³	0.00531 ± 0.00085	-	-	
Bromate	g/m ³	< 0.005 ± 0.0034	0.01	No	
Fluoride	g/m ³	0.102 ± 0.042	1.5	No	
Total Ammoniacal-N	g/m ³	< 0.010 ± 0.0067	-	-	
Reactive Silica	g/m ³ as SiO ₂	96.1 ± 2.0	-	-	
Non-Purgeable Organic Carbon (NPOC)	g/m ³	< 0.3 ± 0.20	-	-	
Absorbance at 254 nm	AU cm ⁻¹	< 0.002 ± 0.0021	-	-	
Transmittance at 254 nm*	%T, 1 cm cell	> 99.5	-	-	
Absorbance at 270 nm	AU cm ⁻¹	< 0.002 ± 0.0021	-	-	
Transmittance at 270 nm*	%T, 1 cm cell	> 99.5	-	-	
Faecal Coliforms	cfu / 100mL	< 1 #1	-	-	
Enterococci	cfu / 100mL	< 1 #1	-	-	
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Acetochlor	g/m ³	< 0.00004 ± 0.00042	-	-	
Alachlor	g/m ³	< 0.00004 ± 0.00018	0.02	No	
Atrazine	g/m ³	< 0.00004 ± 0.000024	-	-	
Atrazine-desethyl	g/m ³	< 0.00004 ± 0.00041	-	-	
Atrazine-desisopropyl	g/m ³	< 0.00008 ± 0.00018	-	-	
Azaconazole	g/m ³	< 0.00002 ± 0.0000071	-	-	
Azinphos-methyl	g/m ³	< 0.00008 ± 0.000036	0.1	No	
Benalaxyl	g/m ³	< 0.00002 ± 0.0000094	-	-	
Bitertanol	g/m ³	< 0.00008 ± 0.000048	-	-	
Bromacil	g/m ³	< 0.00004 ± 0.000025	0.4	No	
Bromopropylate	g/m ³	< 0.00004 ± 0.000022	-	-	
Butachlor	g/m ³	< 0.00004 ± 0.000021	-	-	
Captan	g/m ³	< 0.00008 ± 0.000060	-	-	
Carbaryl	g/m ³	< 0.00004 ± 0.000021	-	-	
Carbofenothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Carbofuran	g/m ³	< 0.00004 ± 0.000022	0.008	No	

Sample Type: Aqueous				
Sample Name:	Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.3			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS				
Chlorfluazuron	g/m ³	< 0.00004 ± 0.000032	-	-
Chlorothalonil	g/m ³	< 0.00004 ± 0.000022	-	-
Chlorpyrifos	g/m ³	< 0.00004 ± 0.000022	0.04	No
Chlorpyrifos-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Chlortoluron	g/m ³	< 0.00008 ± 0.000062	0.04	No
Cyanazine	g/m ³	< 0.00004 ± 0.000021	0.0007	No
Cyfluthrin	g/m ³	< 0.00004 ± 0.000027	-	-
Cyhalothrin	g/m ³	< 0.00004 ± 0.000022	-	-
Cypermethrin	g/m ³	< 0.00008 ± 0.000043	-	-
Deltamethrin (including Tralomethrin)	g/m ³	< 0.00006 ± 0.000027	-	-
Diazinon	g/m ³	< 0.00002 ± 0.0000083	-	-
Dichlofluanid	g/m ³	< 0.00004 ± 0.00018	-	-
Dichloran	g/m ³	< 0.0002 ± 0.000089	-	-
Dichlorvos	g/m ³	< 0.00008 ± 0.00018	-	-
Difenoconazole	g/m ³	< 0.00008 ± 0.000043	-	-
Dimethoate	g/m ³	< 0.00008 ± 0.000057	0.008	No
Diphenylamine	g/m ³	< 0.00008 ± 0.00018	-	-
Diuron	g/m ³	< 0.00004 ± 0.000023	0.02	No
Fenpropimorph	g/m ³	< 0.00004 ± 0.000022	-	-
Fluazifop-butyl	g/m ³	< 0.00004 ± 0.000022	-	-
Fluometuron	g/m ³	< 0.00004 ± 0.000026	-	-
Flusilazole	g/m ³	< 0.00004 ± 0.000028	-	-
Fluvalinate	g/m ³	< 0.00004 ± 0.000011	-	-
Furalaxyl	g/m ³	< 0.00002 ± 0.0000079	-	-
Haloxifop-methyl	g/m ³	< 0.00004 ± 0.000027	-	-
Hexaconazole	g/m ³	< 0.00004 ± 0.000060	-	-
Hexazinone	g/m ³	< 0.00002 ± 0.000017	0.4	No
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	g/m ³	< 0.0002 ± 0.00011	-	-
Kresoxim-methyl	g/m ³	< 0.00002 ± 0.000019	-	-
Linuron	g/m ³	< 0.00005 ± 0.000021	-	-
Malathion	g/m ³	< 0.00004 ± 0.000022	-	-
Metalaxyl	g/m ³	< 0.00004 ± 0.000023	0.3	No
Metolachlor	g/m ³	< 0.00004 ± 0.000021	0.01	No
Metribuzin	g/m ³	< 0.00004 ± 0.000027	0.07	No
Molinate	g/m ³	< 0.00008 ± 0.000030	0.007	No
Myclobutanil	g/m ³	< 0.00004 ± 0.000033	-	-
Naled	g/m ³	< 0.0002 ± 0.000056	-	-
Norflurazon	g/m ³	< 0.00008 ± 0.000028	-	-
Oxadiazon	g/m ³	< 0.00004 ± 0.000022	0.2	No
Oxyfluorfen	g/m ³	< 0.00002 ± 0.000019	-	-
Paclobutrazol	g/m ³	< 0.00004 ± 0.000023	-	-
Parathion-ethyl	g/m ³	< 0.00004 ± 0.000022	-	-
Parathion-methyl	g/m ³	< 0.00004 ± 0.000022	-	-
Pendimethalin	g/m ³	< 0.00004 ± 0.000051	0.02	No
Permethrin	g/m ³	< 0.00002 ± 0.000020	-	-
Pirimicarb	g/m ³	< 0.00004 ± 0.000015	-	-
Pirimiphos-methyl	g/m ³	< 0.00004 ± 0.000024	0.1	No
Prochloraz	g/m ³	< 0.0002 ± 0.000059	-	-
Procymidone	g/m ³	< 0.00004 ± 0.000021	0.7	No
Prometryn	g/m ³	< 0.00002 ± 0.000020	-	-
Propachlor	g/m ³	< 0.00004 ± 0.000024	-	-
Propanil	g/m ³	< 0.0002 ± 0.000056	-	-
Propazine	g/m ³	< 0.00002 ± 0.000020	0.07	No
Propiconazole	g/m ³	< 0.00004 ± 0.000033	-	-

Sample Type: Aqueous					
Sample Name:		Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.3			
OrganoNitrogen & Phosphorus pesticides, trace, liq/liq GCMS					
Pyriproxyfen	g/m ³	< 0.00004 ± 0.000033		0.4	No
Quizalofop-ethyl	g/m ³	< 0.00004 ± 0.000022		-	-
Simazine	g/m ³	< 0.00004 ± 0.000013		0.002	No
Simetryn	g/m ³	< 0.00004 ± 0.000022		-	-
Sulfentrazone	g/m ³	< 0.0002 ± 0.000056		-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole, Busan]	g/m ³	< 0.00008 ± 0.000032		-	-
Tebuconazole	g/m ³	< 0.00004 ± 0.000059		-	-
Terbacil	g/m ³	< 0.00004 ± 0.000032		0.04	No
Terbumeton	g/m ³	< 0.00004 ± 0.000021		-	-
Terbuthylazine	g/m ³	< 0.00002 ± 0.0000079		0.008	No
Terbuthylazine-desethyl	g/m ³	< 0.00004 ± 0.000038		-	-
Terbutryn	g/m ³	< 0.00004 ± 0.000023		-	-
Thiabendazole	g/m ³	< 0.0002 ± 0.000063		0.4	No
Thiobencarb	g/m ³	< 0.00004 ± 0.000022		-	-
Tolyfluanid	g/m ³	< 0.00002 ± 0.000019		-	-
Triazophos	g/m ³	< 0.00004 ± 0.000032		-	-
Trifluralin	g/m ³	< 0.00004 ± 0.000027		0.03	No
Vinclozolin	g/m ³	< 0.00004 ± 0.000048		-	-
Hydrogen sulphide trace level profile*					
pH	pH Units	7.2 ± 0.2		-	-
Electrical Conductivity (EC)	mS/m	20.3 ± 0.5		-	-
Sample Temperature*	°C	20.0		-	-
Un-ionised hydrogen sulphide	g/m ³	< 0.002		-	-
Total Sulphide	g/m ³	< 0.002 ± 0.0014		-	-
Acid Herbicides Screen in Water by LCMSMS					
Acifluorfen	g/m ³	< 0.0004 ± 0.00021		-	-
Bentazone	g/m ³	< 0.0004 ± 0.00021		-	-
Bromoxynil	g/m ³	< 0.0004 ± 0.00021		-	-
Clopyralid	g/m ³	< 0.0004 ± 0.00021		-	-
2,4-Dichlorophenoxyacetic acid (24D)	g/m ³	< 0.0004 ± 0.00021		0.04	No
2,4-Dichlorophenoxybutyric acid (24DB)	g/m ³	< 0.0006 ± 0.00025		0.1	No
Dicamba	g/m ³	< 0.0006 ± 0.00021		-	-
Dichlorprop	g/m ³	< 0.0004 ± 0.00021		0.1	No
Fluazifop	g/m ³	< 0.0004 ± 0.00021		-	-
Fluroxypyr	g/m ³	< 0.0004 ± 0.00021		-	-
Haloxypyr	g/m ³	< 0.0004 ± 0.00021		-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	g/m ³	< 0.0004 ± 0.00021		0.8	No
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	g/m ³	< 0.0004 ± 0.00021		-	-
Mecoprop	g/m ³	< 0.0004 ± 0.00021		0.01	No
Oryzalin	g/m ³	< 0.0006 ± 0.00023		0.4	No
2,3,4,6-Tetrachlorophenol (TCP)	g/m ³	< 0.0004 ± 0.00021		-	-
2,4,5-Trichlorophenoxypropionic acid (245TP, Fenoprop, Silvex)	g/m ³	< 0.0004 ± 0.00021		0.01	No
2,4,5-Trichlorophenoxyacetic acid (245T)	g/m ³	< 0.0004 ± 0.00021		0.01	No
Pentachlorophenol (PCP)	g/m ³	< 0.0004 ± 0.00021		0.009	No
Picloram	g/m ³	< 0.0004 ± 0.00021		0.2	No
Quizalofop	g/m ³	< 0.0004 ± 0.00021		-	-
Triclopyr	g/m ³	< 0.0004 ± 0.00021		0.1	No
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Bendiocarb	g/m ³	< 0.00004 ± 0.000022		-	-
Benodanil	g/m ³	< 0.00008 ± 0.000039		-	-
Bifenthrin	g/m ³	< 0.00002 ± 0.0000079		-	-
Bromophos-ethyl	g/m ³	< 0.00004 ± 0.000022		-	-

Sample Type: Aqueous					
Sample Name:		Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.3			
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq					
Bupirimate	g/m ³	< 0.00004 ± 0.000021	-	-	
Buprofezin	g/m ³	< 0.00004 ± 0.000021	-	-	
Captafol	g/m ³	< 0.0002 ± 0.00014	-	-	
Carbofenthiion	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorfenvinphos	g/m ³	< 0.00004 ± 0.000022	-	-	
Chlorpropham	g/m ³	< 0.00008 ± 0.000034	-	-	
Chlozolinate	g/m ³	< 0.00004 ± 0.000022	-	-	
Coumaphos	g/m ³	< 0.00008 ± 0.000038	-	-	
Cyproconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Cyprodinil	g/m ³	< 0.00004 ± 0.000027	-	-	
Dichlobenil	g/m ³	< 0.00004 ± 0.000022	-	-	
Dichlofenthion	g/m ³	< 0.00004 ± 0.000022	-	-	
Dicofol	g/m ³	< 0.0002 ± 0.00014	-	-	
Dicrotophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Dinocap	g/m ³	< 0.0003 ± 0.00012	-	-	
EPN	g/m ³	< 0.00004 ± 0.000026	-	-	
Ethion	g/m ³	< 0.00004 ± 0.000021	-	-	
Etrimfos	g/m ³	< 0.00004 ± 0.000022	-	-	
Famphur	g/m ³	< 0.00004 ± 0.000021	-	-	
Fenarimol	g/m ³	< 0.00004 ± 0.000023	-	-	
Fenitrothion	g/m ³	< 0.00004 ± 0.000022	-	-	
Fenpropathrin	g/m ³	< 0.00004 ± 0.000022	-	-	
Fensulfotthion	g/m ³	< 0.00004 ± 0.000026	-	-	
Fenvalerate (including Esfenvalerate)	g/m ³	< 0.00004 ± 0.000021	-	-	
Folpet	g/m ³	< 0.00008 ± 0.000027	-	-	
Hexythiazox	g/m ³	< 0.0002 ± 0.000071	-	-	
Imazalil	g/m ³	< 0.0002 ± 0.000059	-	-	
Indoxacarb	g/m ³	< 0.00004 ± 0.000022	-	-	
Iodofenphos	g/m ³	< 0.00004 ± 0.000015	-	-	
Isazophos	g/m ³	< 0.00004 ± 0.000025	-	-	
Isofenphos	g/m ³	< 0.00002 ± 0.000018	-	-	
Leptophos	g/m ³	< 0.00004 ± 0.000023	-	-	
Methacrifos	g/m ³	< 0.00004 ± 0.000022	-	-	
Methidathion	g/m ³	< 0.00004 ± 0.000022	-	-	
Methiocarb	g/m ³	< 0.00004 ± 0.000033	-	-	
Mevinphos	g/m ³	< 0.00008 ± 0.000040	-	-	
Nitrofen	g/m ³	< 0.00008 ± 0.000034	-	-	
Nitrothal-isopropyl	g/m ³	< 0.00004 ± 0.000023	-	-	
Oxychlorane	g/m ³	< 0.00002 ± 0.000033	-	-	
Penconazole	g/m ³	< 0.00004 ± 0.000022	-	-	
Phosmet	g/m ³	< 0.00004 ± 0.000021	-	-	
Phosphamidon	g/m ³	< 0.00004 ± 0.000057	-	-	
Propetamphos	g/m ³	< 0.00006 ± 0.000027	-	-	
Propham	g/m ³	< 0.00004 ± 0.000023	-	-	
Prothiofos	g/m ³	< 0.00004 ± 0.000022	-	-	
Pyrazophos	g/m ³	< 0.00004 ± 0.000022	-	-	
Pyrifenoxy	g/m ³	< 0.00004 ± 0.000052	-	-	
Pyrimethanil	g/m ³	< 0.00004 ± 0.000021	-	-	
Quintozene	g/m ³	< 0.00008 ± 0.000026	-	-	
Sulfotep	g/m ³	< 0.00004 ± 0.000022	-	-	
Tebufenpyrad	g/m ³	< 0.00002 ± 0.000019	-	-	
Tetrachlorvinphos	g/m ³	< 0.00004 ± 0.000021	-	-	
Triadimefon	g/m ³	< 0.00004 ± 0.000021	-	-	
Organochlorine Pesticides Trace in Water, By Liq/Liq					
Aldrin	g/m ³	< 0.000005 ± 0.0000034	-	-	

Sample Type: Aqueous					
Sample Name:		Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.3			
Organochlorine Pesticides Trace in Water, By Liq/Liq					
alpha-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-	
beta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-	
delta-BHC	g/m ³	< 0.000010 ± 0.0000067	-	-	
gamma-BHC (Lindane)	g/m ³	< 0.000010 ± 0.0000067	0.002	No	
cis-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-	
trans-Chlordane	g/m ³	< 0.000005 ± 0.0000034	-	-	
2,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDD	g/m ³	< 0.000010 ± 0.0000067	-	-	
2,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDE	g/m ³	< 0.000010 ± 0.0000067	-	-	
2,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-	
4,4'-DDT	g/m ³	< 0.000010 ± 0.0000067	-	-	
Total DDT Isomers	g/m ³	< 0.00006 ± 0.000017	0.001	No	
Dieldrin	g/m ³	< 0.000005 ± 0.0000034	-	-	
Endosulfan I	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endosulfan II	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endosulfan sulphate	g/m ³	< 0.000010 ± 0.0000067	-	-	
Endrin	g/m ³	< 0.000005 ± 0.0000034	0.001	No	
Endrin aldehyde	g/m ³	< 0.000005 ± 0.0000034	-	-	
Endrin ketone	g/m ³	< 0.000010 ± 0.0000067	-	-	
Heptachlor	g/m ³	< 0.000005 ± 0.0000034	-	-	
Heptachlor epoxide	g/m ³	< 0.000005 ± 0.0000034	-	-	
Hexachlorobenzene	g/m ³	< 0.00004 ± 0.000027	-	-	
Methoxychlor	g/m ³	< 0.000005 ± 0.0000034	0.02	No	
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq					
Acenaphthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Acenaphthylene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[a]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[a]pyrene (BAP)	g/m ³	< 0.000005 ± 0.0000034	0.0007	No	
Benzo[b]fluoranthene + Benzo[j]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[g,h,i]perylene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Benzo[k]fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Chrysene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Dibenzo[a,h]anthracene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Fluoranthene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Fluorene	g/m ³	< 0.000005 ± 0.0000055	-	-	
Indeno(1,2,3-c,d)pyrene	g/m ³	< 0.000005 ± 0.0000034	-	-	
Naphthalene	g/m ³	< 0.00002 ± 0.000014	-	-	
Phenanthrene	g/m ³	< 0.000005 ± 0.000013	-	-	
Pyrene	g/m ³	< 0.000005 ± 0.0000057	-	-	
BTEX in VOC Water by Headspace GC-MS					
Benzene	g/m ³	< 0.0003 ± 0.00032	0.01	No	
Ethylbenzene	g/m ³	< 0.0005 ± 0.00034	0.3	No	
Toluene	g/m ³	< 0.0003 ± 0.00060	0.8	No	
m&p-Xylene	g/m ³	< 0.0005 ± 0.00034	-	-	
o-Xylene	g/m ³	< 0.0003 ± 0.00031	-	-	
Halogenated Aliphatics in VOC Water by Headspace GC-MS					
Bromomethane (Methyl Bromide)	g/m ³	< 0.0003 ± 0.00031	-	-	
Carbon tetrachloride	g/m ³	< 0.0003 ± 0.00030	0.005	No	
Chloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Chloromethane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003 ± 0.00026	0.001	No	

Sample Type: Aqueous					
Sample Name:		Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:		3677890.3			
Halogenated Aliphatics in VOC Water by Headspace GC-MS					
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003 ± 0.00025	0.0004	No	
Dibromomethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Dichlorodifluoromethane	g/m ³	< 0.0003 ± 0.00030	-	-	
1,1-Dichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,2-Dichloroethane	g/m ³	< 0.0003 ± 0.00030	0.03	No	
1,1-Dichloroethene	g/m ³	< 0.0003 ± 0.00032	-	-	
cis-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00031	-	-	
trans-1,2-Dichloroethene	g/m ³	< 0.0003 ± 0.00030	-	-	
Dichloromethane (methylene chloride)	g/m ³	< 0.010 ± 0.0067	0.02	No	
1,2-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	0.05	No	
1,3-Dichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1-Dichloropropene	g/m ³	< 0.0003 ± 0.00031	-	-	
cis-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-	
trans-1,3-Dichloropropene	g/m ³	< 0.0005 ± 0.00034	-	-	
Hexachlorobutadiene	g/m ³	< 0.0003 ± 0.00030	0.0007	No	
1,1,1,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1,1,2,2-Tetrachloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.0003 ± 0.00032	0.05	No	
1,1,1-Trichloroethane	g/m ³	< 0.0003 ± 0.00030	-	-	
1,1,2-Trichloroethane	g/m ³	< 0.0003 ± 0.00031	-	-	
Trichloroethene (trichloroethylene)	g/m ³	< 0.0003 ± 0.00031	0.03	No	
Trichlorofluoromethane	g/m ³	< 0.0003 ± 0.00032	-	-	
1,2,3-Trichloropropane	g/m ³	< 0.0003 ± 0.00031	-	-	
1,1,2-Trichlorotrifluoroethane (Freon 113)	g/m ³	< 0.0003 ± 0.00027	-	-	
Vinyl chloride	g/m ³	< 0.0003 ± 0.00030	0.0003	No	
Halogenated Aromatics in VOC Water by Headspace GC-MS					
Chlorobenzene (monochlorobenzene)	g/m ³	< 0.0003 ± 0.00031	-	-	
1,2-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	1.5	No	
1,3-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
1,4-Dichlorobenzene	g/m ³	< 0.0003 ± 0.00031	0.4	No	
1,2,3-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-	
1,2,4-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00029	-	-	
1,3,5-Trichlorobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Bromobenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
2-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-	
4-Chlorotoluene	g/m ³	< 0.0003 ± 0.00031	-	-	
Monoaromatic Hydrocarbons in VOC Water by Headspace GC-MS					
n-Butylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-	
tert-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
4-Isopropyltoluene (p-Cymene)	g/m ³	< 0.0005 ± 0.00034	-	-	
Isopropylbenzene (Cumene)	g/m ³	< 0.0003 ± 0.00031	-	-	
n-Propylbenzene	g/m ³	< 0.0005 ± 0.00034	-	-	
sec-Butylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Styrene	g/m ³	< 0.0005 ± 0.00034	0.03	No	
1,2,4-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
1,3,5-Trimethylbenzene	g/m ³	< 0.0003 ± 0.00031	-	-	
Ketones in VOC Water by Headspace GC-MS					
Acetone	g/m ³	< 0.05 ± 0.034	-	-	
2-Butanone (MEK)	g/m ³	< 0.05 ± 0.016	-	-	
Methyl tert-butylether (MTBE)	g/m ³	< 0.0003 ± 0.00031	-	-	
4-Methylpentan-2-one (MIBK)	g/m ³	< 0.010 ± 0.0045	-	-	
Trihalomethanes in VOC Water by Headspace GC-MS					
Bromodichloromethane	g/m ³	< 0.0003 ± 0.00030	0.06	No	
Bromoform (tribromomethane)	g/m ³	< 0.0003 ± 0.00030	0.1	No	

Sample Type: Aqueous				
Sample Name:	Waihi Beach Wilson Rd Bore 23-Sep-2024 10:00 am		Maximum Acceptable Value	Outside Limits
Lab Number:	3677890.3			
Trihalomethanes in VOC Water by Headspace GC-MS				
Chloroform (Trichloromethane)	g/m ³	< 0.0003 ± 0.00030	0.4	No
Dibromochloromethane	g/m ³	< 0.0003 ± 0.00030	0.15	No
Other VOC in Water by Headspace GC-MS				
Carbon disulphide	g/m ³	< 0.0005 ± 0.0031	-	-
Naphthalene	g/m ³	< 0.0005 ± 0.00034	-	-

Note: The Maximum Acceptable Values (MAV) are taken from the 'Water Services (Drinking Water Standards for New Zealand) Regulations 2022', published under the authority of the New Zealand Government-2022. Copies of this publication are available from: <https://www.legislation.govt.nz/regulation/public/2022/0168/latest/whole.html>

The standards set limits for the concentration of determinands in drinking water. The Maximum Acceptable Values (MAVs) for any determinand must not be exceeded at any time.

Under Section 73 (2) of the Water Services Act 2021, the laboratory is required to report the results of any analysis or test carried out (for the purposes of testing for compliance with the Drinking Water Standards for New Zealand 2022) that indicates any non-compliance (transgression) with the Maximum Acceptable Values (MAVs) to Taumata Arowai, the water services regulator for Aotearoa.

Taumata Arowai also publishes 'Aesthetic Values for Drinking Water Notice 2022' which specifies or provides minimum or maximum values for substances and other characteristics that relate to the acceptability of drinking water to consumers (such as appearance, taste or odour). This report compares the results obtained with the Maximum Acceptable Values only.

The reported uncertainty is an expanded uncertainty with a level of confidence of approximately 95 percent (i.e. two standard deviations, calculated using a coverage factor of 2). Reported uncertainties are calculated from the performance of typical matrices, and do not include variation due to sampling. For further information on uncertainty of measurement at Hill Laboratories, refer to the technical note on our website: www.hill-laboratories.com/files/Intro_To_UOM.pdf, or contact the laboratory.

Note that the units: g/m³ are the same as mg/L and ppm.

Analyst's Comments

#1 Statistically estimated count based on the theoretical countable range for the stated method. Please interpret this result with caution as the sample was > 10 °C on receipt at the lab. The sample temperature is recommended by the laboratory's reference methods to be less than 10 °C on receipt at the laboratory (but not frozen). However, it is acknowledged that samples that are transported quickly to the laboratory after sampling, may not have been cooled to this temperature.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Filtration, Glass Fibre	Sample filtration through glass fibre filter.	-	1-3
Filtration, Unpreserved	Sample filtration through 0.45µm membrane filter.	-	1-3
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) : Online Edition.	-	1-3
pH	pH meter. APHA 4500-H+ B (modified) : Online Edition. Note: It is not possible to achieve the APHA Maximum Storage Recommendation for this test (15 min) when samples are analysed upon receipt at the laboratory, and not in the field. Samples and Standards are analysed at an equivalent laboratory temperature (typically 18 to 22 °C). Temperature compensation is used.	0.1 pH Units	1-3
Total Alkalinity	Titration to pH 4.5 (M-alkalinity), autotitrator. APHA 2320 B (modified for Alkalinity <20) : Online Edition.	1.0 g/m ³ as CaCO ₃	1-3
Carbonate	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D : Online Edition.	1.0 g/m ³ at 25°C	1-3
Bicarbonate	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D : Online Edition.	1.0 g/m ³ at 25°C	1-3

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Free Carbon Dioxide	Calculation: from alkalinity and pH, valid where TDS is not >500 mg/L and alkalinity is almost entirely due to hydroxides, carbonates or bicarbonates. APHA 4500-CO ₂ D : Online Edition.	1.0 g/m ³ at 25°C	1-3
Total Hardness	Calculation from Calcium and Magnesium. APHA 2340 B : Online Edition.	1.0 g/m ³ as CaCO ₃	1-3
Electrical Conductivity (EC)	Conductivity meter, 25°C. APHA 2510 B : Online Edition.	0.1 mS/m	1-3
Total Suspended Solids	Filtration using Whatman 934 AH, Advantec GC-50 or equivalent filters (nominal pore size 1.2 - 1.5µm), gravimetric determination. APHA 2540 D (modified) : Online Edition.	3 g/m ³	1-3
Total Dissolved Solids (TDS)	Filtration through GF/C (1.2 µm), gravimetric. APHA 2540 C (modified; drying temperature of 103 - 105°C used rather than 180 ± 2°C) : Online Edition.	10 g/m ³	1-3
Sample Temperature*	A nominal sample temperature of 20°C has been assumed by the laboratory.	0.1 °C	1-3
Filtration for dissolved metals analysis	Sample filtration through 0.45µm membrane filter and preservation with nitric acid. APHA 3030 B : Online Edition.	-	1-3
Dissolved Aluminium	Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.003 g/m ³	1-3
Total Boron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.0053 g/m ³	1-3
Total Calcium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.053 g/m ³	1-3
Total Magnesium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.021 g/m ³	1-3
Dissolved Molybdenum	Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.0002 g/m ³	1-3
Dissolved Selenium	Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.0010 g/m ³	1-3
Dissolved Silver	Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.00010 g/m ³	1-3
Dissolved Tin	Filtered sample, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.0005 g/m ³	1-3
Total Zinc	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.0011 g/m ³	1-3
Bromate	Sample analysed as received, filtered if required. Ion Chromatography. US EPA Method 300.1 Part B (modified).	0.005 g/m ³	1-3
Fluoride	Direct measurement, ion selective electrode. APHA 4500-F ⁻ C : Online Edition.	0.05 g/m ³	1-3
Total Ammoniacal-N	Phenol/hypochlorite colourimetry. Flow injection analyser. (NH ₄ -N = NH ₄ ⁺ -N + NH ₃ -N). APHA 4500-NH ₃ H (modified) : Online Edition.	0.010 g/m ³	1-3
Reactive Silica	Filtered sample. Heteropoly blue colorimetry. Flow Injection Analyser. APHA 4500-SiO ₂ F (modified) : Online Edition.	0.10 g/m ³ as SiO ₂	1-3
Un-ionised hydrogen sulphide	Calculation from Total Sulphide, Electrical Conductivity, pH and Temperature*. *Note: For accurate calculation of the un-ionised Hydrogen Sulphide the sample temperature should be taken using a calibrated thermometer at the time of sampling and recorded on the paperwork submitted with the sample. If a sample temperature is not supplied, a nominal temperature of 20°C will show in the results table above and be used in the calculation. In this case, please interpret the un-ionised Hydrogen Sulphide result with caution. APHA 4500-S ²⁻ H (modified) : Online Edition.	0.002 g/m ³	1-3
Total Sulphide Trace	In-line distillation, segmented flow colorimetry. APHA 4500-S ²⁻ E (modified) : Online Edition.	0.002 g/m ³	1-3
Non-Purgeable Organic Carbon (NPOC)	Acidification, purging to remove inorganic C, super-critical persulphate oxidation at 375°C, IR detection. APHA 5310 C (modified) : Online Edition.	0.3 g/m ³	1-3
Absorbance at 254 nm	Filtered sample. Spectrophotometry, 1cm cell. APHA 5910 B : Online Edition.	0.002 AU cm ⁻¹	1-3
Transmittance at 254 nm*	Calculation from Absorbance at the specified wavelength.	0.5 %T, 1 cm cell	1-3
Absorbance at 270 nm	Filtered sample. Spectrophotometry, 1cm cell. APHA 5910 B : Online Edition.	0.002 AU cm ⁻¹	1-3
Transmittance at 270 nm*	Calculation from Absorbance at the specified wavelength.	0.5 %T, 1 cm cell	1-3
Faecal Coliforms	Membrane Filtration, Count on CCA agar, Incubated at 44.5°C for 21-24 hours. APHA 9222 D (modified) : Online Edition.	1 cfu / 100mL	1-3

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Enterococci	Membrane filtration, Count on mEI agar, Incubated at 42°C for 24 hours. APHA 9230 C (modified) Online Edition.	1 cfu / 100mL	1-3
Acid Herbicides Screen in Water by LCMSMS	LC-MS/MS analysis. In-house.	0.0003 - 0.0006 g/m ³	1-3
Multiresidue Pesticides Trace in Water by Liq/liq GCMS	Liquid / liquid extraction, GC-ECD and GC-MS analysis. In-house based on US EPA 8081 and US EPA 8270.	-	1-3
Polycyclic Aromatic Hydrocarbons Trace in Water, By Liq/Liq	Liquid / liquid extraction, GC-MS/MS analysis. In-house based on US EPA 8270.	0.000005 g/m ³	1-3
Volatile Organic Compounds Trace in Water by Headspace GC-MS	Headspace GC-MS analysis. In-house based on US EPA 8260 and 5021.	0.0003 - 0.05 g/m ³	1-3
Multiresidue Extra Pesticides Trace in Water samples by Liq/liq			
Bendiocarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Benodanil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Bifenthrin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-3
Bromophos-ethyl	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Bupirimate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Buprofezin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Captafol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-3
Chlorfenvinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Chlorpropham	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Chlozolinate	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Coumaphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Cyproconazole	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Cyprodinil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Dichlobenil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Dichlofenthion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Dicofol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-3
Dicrotophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Dinocap	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0003 g/m ³	1-3
EPN	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Ethion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Etrimfos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Famphur	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Fenarimol	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Fenitrothion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Fenpropathrin	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Fensulfothion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Fenvalerate (including Esfenvalerate)	Liquid / liquid extraction, GC-MS analysis.	0.00004 g/m ³	1-3
Folpet	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Hexythiazox	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-3

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Imazalil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.0002 g/m ³	1-3
Indoxacarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Iodofenphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Isazophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Isofenphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-3
Leptophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Methacrifos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Methidathion	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Methiocarb	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Mevinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Nitrofen	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Nitrothal-isopropyl	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Oxychlorthane	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-3
Penconazole	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Phosmet	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Phosphamidon	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Propetamphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00006 g/m ³	1-3
Propham	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Prothiofos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Pyrazophos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Pyrifenox	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Pyrimethanil	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Quintozene	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00008 g/m ³	1-3
Sulfotep	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Tebufenpyrad	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00002 g/m ³	1-3
Tetrachlorvinphos	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3
Triadimefon	Liquid / liquid extraction, GC-MS analysis. In-house based on US EPA 8270.	0.00004 g/m ³	1-3

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 24-Sep-2024 and 08-Oct-2024. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Ara Heron BSc (Tech)
Client Services Manager - Environmental