Fapas®

Water and Environmental - Chemistry

Proficiency Testing Programme

Jan 2019 – Mar 2020

fapas

Proficiency Testing from fera

Contents

HOW TO USE THIS DOCUMENT

This document lists all the water and environmental chemistry proficiency tests (PTs) we have planned for the period January 2019 to March 2020 inclusive. It is provided as an off-line companion to our on-line ordering system on our website at fapas.com/shop. Our website will always be the most up to date source of information thus the **data on the website is definitive.**

Our water and environmental chemistry PTs are grouped into broad categories, e.g. drinking water chemistry, waste water chemistry, etc. and then within each category the PTs are listed in groups of analytes and then by the date the test materials will be dispatched to customers.

The **dispatch date** shown is the planned date on which the samples will be shipped from Fapas® to participants. An automatic email announcing the dispatch is sent to the contact named that for that test. Participants select this contact during the on-line ordering process. Several different PTs are dispatched on any given date. These groups of PTs are known as 'Distributions'. These Distributions are presented in a grid layout in APPENDIX 1, APPENDIX 2, APPENDIX 3, APPENDIX 4 and APPENDIX 5.

Each test has a **product code** and an **item code**.

- The product code is an alphanumeric description of the combination of matrix and analyte, it doesn't change from year to year, i.e. searching for the product codes of tests in the previous programme will find the equivalent tests this year.
- The item code is the *unique* reference for the test being dispatched on a given date.

The **fee** shown for each test is solely the cost of participating in that test. It does *not* include any carriage costs because these charges are applied to your complete order. When you place your order on-line you will see the carriage costs that are applicable. For those tests that are, by default, sent by regular post, you have the option of upgrading to courier. For tests where rapid delivery is essential the samples are automatically sent by courier and you cannot change this.

APPENDIX 6 provides some guidance on the process of ordering and taking delivery of a Fapas® PT. Please note, the information in APPENDIX 6 does *not* constitute our Standard Terms & Conditions for Proficiency Testing Schemes, which are available on our website at fapas.com/terms-conditions.

APPENDIX 7 gives the contact details of our International Agents. If there is an agent in your country you are advised to benefit from their services (assistance with ordering, invoicing in local currency and advising on potential sample import issues).

WATER AND ENVIRONMENTAL CHEMISTRY PROFICIENCY TESTING PROGRAMME

The Fapas® Water and Environmental chemistry proficiency testing scheme was originally dedicated to the drinking water supply industry but now incorporates related environmental testing. This includes waste water (effluent), surface water (rivers or lakes), high salinity (sea) water and soil. The water chemistry scheme covers a range of chemical determinands separated into groups according to their analytical requirements. The water chemistry samples comprise combinations of real drinking water and spiking standards in order to cover the widest possible range of determinands.

A different type of challenge proficiency test exists with the Emergency and Taste and Odour schemes. These are water chemistry proficiency tests which simulate the response to a contamination scenario. The Emergency scheme could contain any toxic chemical contamination. The Taste and Odour scheme contains chemicals which could impart a distinct taste or odour to drinking water (this is not an organoleptic exercise).

The Fapas® Water and Environmental chemistry proficiency test samples are released as regular distributions throughout the year. This maximises the economy of shipping multiple samples to laboratories and provides sufficient frequency of participation.

For more general information on Fapas® proficiency testing as a whole, please see information available on our website: www.fapas.com.

DRINKING WATER CHEMISTRY

Mainly real drinking water samples for the analysis of inorganics, metals and organics. NB there is no 'Group 13' or 'Group 14', these analyte groupings were superseded several years ago.

Groups 1 and 2 – Major Inorganic and Routine Components

PLEASE NOTE:

- If you order both Group 1 **AND** Group 2 you will only be sent **ONE** 1 litre bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
21/01/2019	FWIC1-DRW1	DWC0117	real drinking water	group 1 major inorganic components	1 litre	88
21/01/2019	FWRC1-DRW1	DWC0217	real drinking water	group 2 routine components	1 litre	88
18/03/2019	FWIC1-DRW1	DWC0118	real drinking water	group 1 major inorganic components	1 litre	88
18/03/2019	FWRC1-DRW1	DWC0218	real drinking water	group 2 routine components	1 litre	88
21/05/2019	FWIC1-DRW1	DWC0119	real drinking water	group 1 major inorganic components	1 litre	91
21/05/2019	FWRC1-DRW1	DWC0219	real drinking water	group 2 routine components	1 litre	91
30/07/2019	FWIC1-DRW1	DWC0120	real drinking water	group 1 major inorganic components	1 litre	91
30/07/2019	FWRC1-DRW1	DWC0220	real drinking water	group 2 routine components	1 litre	91
17/09/2019	FWIC1-DRW1	DWC0121	real drinking water	group 1 major inorganic components	1 litre	91
17/09/2019	FWRC1-DRW1	DWC0221	real drinking water	group 2 routine components	1 litre	91
19/11/2019	FWIC1-DRW1	DWC0122	real drinking water	group 1 major inorganic components	1 litre	91
19/11/2019	FWRC1-DRW1	DWC0222	real drinking water	group 2 routine components	1 litre	91
21/01/2020	FWIC1-DRW1	DWC0123	real drinking water	group 1 major inorganic components	1 litre	91
21/01/2020	FWRC1-DRW1	DWC0223	real drinking water	group 2 routine components	1 litre	91
17/03/2020	FWIC1-DRW1	DWC0124	real drinking water	group 1 major inorganic components	1 litre	91
17/03/2020	FWRC1-DRW1	DWC0224	real drinking water	group 2 routine components	1 litre	91

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
1 major inorganic components	sodium potassium chloride calcium magnesium alkalinity total hardness total phosphorus fluoride sulphate	5.0 – 50 mg/l 0.3 – 3.0 mg/l 6.0 – 50 mg/l 10 – 150 mg/l 1.0 – 15 mg/l 30 – 300 mg HCO_3/l 30 – 130 mg Ca/l 100 – 3000 µg P/l 150 – 1800 µg/l 8.0 – 100 mg/l
2 routine components	nitrite nitrate ammonium TOC PI colour (filtered) SR phosphate pH turbidity conductivity @ 20^0C	0.02 – 0.6 mg NO_2/l 2.0 – 60 mg NO_3/l 0.1 – 0.6 mg NH_4/l 0.2 – 5.0 mg/l 0.2 – 5.0 mg/l 0.2 – 20 HAZEN 10 – 1500 µg P/l 6.0 – 10.0 pH units 0.05 – 4.0 NTU 100 – 600 µS/cm @ 20^0C

Groups 3 and 4 – Routine and Non-Routine Metals

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
21/01/2019	FWRM1-DRW1	DWC0317	real drinking water	group 3 routine metals	500 ml	132
18/03/2019	FWRM1-DRW1	DWC0318	real drinking water	group 3 routine metals	500 ml	132
18/03/2019	FWNM1-DRW1	DWC0411	standard solutions acidified with 0.1M nitric acid	group 4 non-routine metals	60 & 500 ml & spiking concentrate	193
21/05/2019	FWRM1-DRW1	DWC0319	real drinking water	group 3 routine metals	500 ml	136
21/05/2019	FWNM1-DRW1	DWC0412	standard solutions acidified with 0.1M nitric acid	group 4 non-routine metals	60 & 500 ml & spiking concentrate	199
30/07/2019	FWRM1-DRW1	DWC0320	real drinking water	group 3 routine metals	500 ml	136
30/07/2019	FWNM1-DRW1	DWC0413	standard solutions acidified with 0.1M nitric acid	group 4 non-routine metals	60 & 500 ml & spiking concentrate	199
17/09/2019	FWRM1-DRW1	DWC0321	real drinking water	group 3 routine metals	500 ml	136
19/11/2019	FWRM1-DRW1	DWC0322	real drinking water	group 3 routine metals	500 ml	136
19/11/2019	FWNM1-DRW1	DWC0414	standard solutions acidified with 0.1M nitric acid	group 4 non-routine metals	60 & 500 ml & spiking concentrate	199
21/01/2020	FWRM1-DRW1	DWC0323	real drinking water	group 3 routine metals	500 ml	136
17/03/2020	FWRM1-DRW1	DWC0324	real drinking water	group 3 routine metals	500 ml	136
17/03/2020	FWNM1-DRW1	DWC0415	standard solutions acidified with 0.1M nitric acid	group 4 non-routine metals	60 & 500 ml & spiking concentrate	199

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
3 routine metals	cadmium lead iron manganese aluminium copper zinc nickel chromium	0.5 – 7.0 µg/l 0.5 – 20 µg/l 20 – 400 µg/l 10 – 75 µg/l 20 – 300 µg/l 50 – 2000 µg/l 50 – 500 µg/l 5.0 – 30 µg/l 5.0 – 50 µg/l
4 non-routine metals	mercury barium boron arsenic selenium antimony silver strontium lithium cobalt vanadium molybdenum tin beryllium	0.1 – 2.0 µg/l 100 – 1000 µg/l 200 – 1500 µg/l 1.0 – 15 µg/l 1.0 – 15 µg/l 0.5 – 7.5 µg/l 1.0 – 20 µg/l 50 – 500 µg/l 10 – 100 µg/l 3.0 – 30 µg/l 3.0 – 30 µg/l 3.0 – 30 µg/l 3.0 – 100 µg/l 3.0 – 10 µg/l

Group 5 – Inorganic Disinfection By-Products

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/03/2019	FWID1-DRW1	DWC0511	standard solution in ultra-pure water	group 5 inorganic disinfection by-products	125 ml	132
21/05/2019	FWID1-DRW1	DWC0512	standard solution in ultra-pure water	group 5 inorganic disinfection by-products	125 ml	136
30/07/2019	FWID1-DRW1	DWC0513	standard solution in ultra-pure water	group 5 inorganic disinfection by-products	125 ml	136
19/11/2019	FWID1-DRW1	DWC0514	standard solution in ultra-pure water	group 5 inorganic disinfection by-products	125 ml	136
17/03/2020	FWID1-DRW1	DWC0515	standard solution in ultra-pure water	group 5 inorganic disinfection by-products	125 ml	136

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
5 inorganic disinfection by-products	bromide bromate chlorite chlorate	5 – 200 µg/l 1.0 – 20 µg/l 1.0 – 200 µg/l 1.0 – 1000 µg/l

Group 6 – Trihalomethanes / Chlorinated Solvents

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
12/02/2019	FWTR1-DRW1	DWC0612	ultra-pure water	group 6 trihalomethanes / chlorinated solvents	1 litre & spiking concentrate	170
14/05/2019	FWTR1-DRW1	DWC0613	ultra-pure water	group 6 trihalomethanes / chlorinated solvents	1 litre & spiking concentrate	175
13/08/2019	FWTR1-DRW1	DWC0614	ultra-pure water	group 6 trihalomethanes / chlorinated solvents	1 litre & spiking concentrate	175
12/11/2019	FWTR1-DRW1	DWC0615	ultra-pure water	group 6 trihalomethanes / chlorinated solvents	1 litre & spiking concentrate	175
18/02/2020	FWTR1-DRW1	DWC0616	ultra-pure water	group 6 trihalomethanes / chlorinated solvents	1 litre & spiking concentrate	175

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
6 trihalomethanes / chlorinated solvents	chloroform	2.0 – 100 µg/l
	dichloromethane	2.0 – 40 µg/l
	bromodichloromethane	2.0 – 50 µg/l
	dibromochloromethane	2.0 – 50 µg/l
	bromoform	2.0 – 50 µg/l
	trichloroethene	0.5 – 10 µg/l
	tetrachloroethene	0.5 – 10 µg/l
	carbon tetrachloride	0.5 – 4.0 µg/l
	1,2-dichloroethane	0.5 – 4.0 µg/l
	1,2,3-trichlorobenzene	0.1 – 2.0 µg/l
	1,2,4-trichlorobenzene	0.1 – 2.0 µg/l
	1,3,5-trichlorobenzene	0.1 – 2.0 µg/l
	hexachlorobutadiene	0.01 – 0.15 µg/l
	1,1,1-trichloroethane	0.1 – 2.0 µg/l

Group 7 – Polycyclic Aromatic Hydrocarbons

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
12/02/2019	FWPC1-DRW1	DWC0712	drinking water	group 7 polycyclic aromatic hydrocarbons	1 litre & spiking concentrate	170
14/05/2019	FWPC1-DRW1	DWC0713	drinking water	group 7 polycyclic aromatic hydrocarbons	1 litre & spiking concentrate	175
13/08/2019	FWPC1-DRW1	DWC0714	drinking water	group 7 polycyclic aromatic hydrocarbons	1 litre & spiking concentrate	175
12/11/2019	FWPC1-DRW1	DWC0715	drinking water	group 7 polycyclic aromatic hydrocarbons	1 litre & spiking concentrate	175
18/02/2020	FWPC1-DRW1	DWC0716	drinking water	group 7 polycyclic aromatic hydrocarbons	1 litre & spiking concentrate	175

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
7 polycyclic aromatic hydrocarbons	anthracene	0.005 – 0.05 µg/l
	fluoranthene	0.01 – 0.10 µg/l
	benzo (b) fluoranthene	0.003 – 0.050 µg/l
	benzo (k) fluoranthene	0.003 – 0.050 µg/l
	naphthalene	0.005 – 0.005 µg/l
	benzo (a) pyrene	0.002 – 0.020µg/l
	benzo (ghi) perylene	0.010 – 0.070 µg/l
	indeno (1,2,3-cd) pyrene	0.010 – 0.070 µg/l

Group 8 – OP Pesticides

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
12/02/2019	FWOP1-DRW1	DWC0812	drinking water	group 8 OP pesticides	1 litre & spiking concentrate	170
14/05/2019	FWOP1-DRW1	DWC0813	drinking water	group 8 OP pesticides	1 litre & spiking concentrate	175
13/08/2019	FWOP1-DRW1	DWC0814	drinking water	group 8 OP pesticides	1 litre & spiking concentrate	175
12/11/2019	FWOP1-DRW1	DWC0815	drinking water	group 8 OP pesticides	1 litre & spiking concentrate	175
18/02/2020	FWOP1-DRW1	DWC0816	drinking water	group 8 OP pesticides	1 litre & spiking concentrate	175

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
8 OP pesticides	alachlor	0.01 – 0.15 µg/l
	azinphos-ethyl	0.01 – 0.15 µg/l
	azinphos-methyl	0.01 – 0.15 µg/l
	dichlorvos	0.01 – 0.15 µg/l
	fenitrothion	0.01 – 0.15 µg/l
	malathion	0.01 – 0.15 µg/l
	mevinphos	0.01 – 0.15 µg/l
	chlorofenvinphos	0.01 – 0.15 µg/l
	chlorpyrifos	0.01 – 0.15 µg/l
	diazinon	0.01 – 0.15 µg/l
	fenthion	0.01 – 0.15 µg/l
	parathion-ethyl	0.01 – 0.15 µg/l
	parathion-methyl	0.01 – 0.15 µg/l
	cypermethrin	0.01 – 0.15 µg/l
	propetamphos	0.01 – 0.15 µg/l

Group 9 – Acid Herbicides

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
23/04/2019	FWAH1-DRW1	DWC0907	drinking water	group 9 acid herbicides	1 litre & spiking concentrate	205
08/10/2019	FWAH1-DRW1	DWC0908	drinking water	group 9 acid herbicides	1 litre & spiking concentrate	205

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
9 acid herbicides	MCPA	0.01 – 0.15 µg/l
	MCPB	0.01 – 0.15 µg/l
	2,4-D	0.01 – 0.15 µg/l
	dichlorprop	0.01 – 0.15 µg/l
	dicamba,	0.01 – 0.15 µg/l
	2,4-DB	0.01 – 0.15 µg/l
	bentazone	0.01 – 0.15 µg/l
	mecoprop	0.01 – 0.15 µg/l
	propyzamide	0.01 – 0.15 µg/l
	ioxynil	0.01 – 0.15 µg/l
	bromoxynil	0.01 – 0.15 µg/l
	triclopyr	0.01 – 0.15 µg/l
	clopyralid	0.01 – 0.15 µg/l
	fluroxypyr	0.01 – 0.15 µg/l
	2,3,6-TBA	0.01 – 0.15 µg/l
	2,4,5-T	0.01 – 0.15 µg/l
	dichlobenil	0.01 – 0.15 µg/l
	bromacil	0.01 – 0.15 µg/l
	metazachlor	0.01 – 0.15 µg/l
	propachlor	0.01 – 0.15 µg/l
	benazolin	0.01 – 0.15 µg/l
	metaldehyde	0.01 – 0.15 µg/l

Group 10 – OC Pesticides

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/02/2019	FWOC1-DRW1	DWC1012	real drinking water	group 10 OC Pesticides	1 litre& spiking concentrate	170
23/04/2019	FWOC1-DRW1	DWC1013	real drinking water	group 10 OC Pesticides	1 litre& spiking concentrate	175
02/07/2019	FWOC1-DRW1	DWC1014	real drinking water	group 10 OC Pesticides	1 litre& spiking concentrate	175
08/10/2019	FWOC1-DRW1	DWC1015	real drinking water	group 10 OC Pesticides	1 litre& spiking concentrate	175
04/02/2020	FWOC1-DRW1	DWC1016	real drinking water	group 10 OC Pesticides	1 litre& spiking concentrate	175

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
10 OC pesticides	endrin	0.01 – 0.15 µg/l
	dieldrin	0.006 – 0.05 µg/l
	Aldrin	0.006 – 0.05 µg/l
	p,p' DDT	0.01 – 0.15 µg/l
	o,p'-DDT	0.01 – 0.15 µg/l
	p,p'-DDE	0.01 – 0.15 µg/l
	o,p'-DDE	0.01 – 0.15 µg/l
	p,p'-DDD	0.01 – 0.15 µg/l
	o,p-DDD (TDE)	0.01 – 0.15 µg/l
	hexachlorocyclohexane (alpha)	0.01 – 0.15 µg/l
	hexachlorocyclohexane (beta)	0.01 – 0.15 µg/l
	hexachlorocyclohexane (delta)	0.01 – 0.15 µg/l
	lindane (gamma HCH)	0.01 – 0.15 µg/l
	trifluralin	0.01 – 0.15 µg/l
	alpha endosulphan	0.01 – 0.15 µg/l
	beta endosulphan	0.01 – 0.15 µg/l
	Hexachlorobenzene	0.01 – 0.15 µg/l
	heptachlor	0.006 – 0.04 µg/l
	heptachlor epoxide (total),	0.006 – 0.04 µg/l
	pentachlorobenzene	0.01 – 0.15 µg/l
	pendimethalin	0.01 – 0.15 µg/l

Group 11 – BTEX

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/02/2019	FWBT1-DRW1	DWC1112	real drinking water	group 11 BTEX (benzene, toluene, ethylbenzene, xylene)	1 litre& spiking concentrate	170
23/04/2019	FWBT1-DRW1	DWC1113	real drinking water	group 11 BTEX (benzene, toluene, ethylbenzene, xylene)	1 litre& spiking concentrate	175
02/07/2019	FWBT1-DRW1	DWC1114	real drinking water	group 11 BTEX (benzene, toluene, ethylbenzene, xylene)	1 litre& spiking concentrate	175
08/10/2019	FWBT1-DRW1	DWC1115	real drinking water	group 11 BTEX (benzene, toluene, ethylbenzene, xylene etc.)	1 litre& spiking concentrate	175
04/02/2020	FWBT1-DRW1	DWC1116	real drinking water	group 11 BTEX (benzene, toluene, ethylbenzene, xylene etc.)	1 litre& spiking concentrate	175

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
11 BTEX (benzene, toluene, ethylbenzene, xylene)	benzene	0.1 – 1.5 µg/l
	toluene	0.2 – 4.0 µg/l
	ethylbenzene	0.2 – 4.0 µg/l
	styrene	0.2 – 4.0 µg/l
	o-xylene	0.2 – 4.0 µg/l
	m-xylene	0.2 – 4.0 µg/l
	p-xylene	0.2 – 4.0 µg/l
	m+p xylene	0.2 – 8.0 µg/l
	total xylene	0.5 – 12.0 µg/l

Group 12 – Chlorine (total and free)

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/03/2019	FWCH1-DRW1	DWC1211	standard concentrate	group 12 chlorine (total and free)	3 ml (for dil. to 1 l)	78
21/05/2019	FWCH1-DRW1	DWC1212	standard concentrate	group 12 chlorine (total and free)	3 ml (for dil. to 1 l)	80
30/07/2019	FWCH1-DRW1	DWC1213	standard concentrate	group 12 chlorine (total and free)	3 ml (for dil. to 1 l)	80
19/11/2019	FWCH1-DRW1	DWC1214	standard concentrate	group 12 chlorine (total and free)	3 ml (for dil. to 1 l)	80
17/03/2020	FWCH1-DRW1	DWC1215	standard concentrate	group 12 chlorine (total and free)	3 ml (for dil. to 1 l)	80

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
12 chlorine	chlorine (total) chlorine (free)	0.5 – 3.0 mg/l 0.5 – 3.0 mg/l

Groups 13 & 14

There is no Group 13 or Group 14, these analyte groupings were superseded several years ago.

Group 15 – Triazines and Urea Herbicides

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/02/2019	FWTU1-DRW1	DWC1506	real drinking water	group 15 triazines and urea herbicides	1 litre & spiking concentrate	199
02/07/2019	FWTU1-DRW1	DWC1507	real drinking water	group 15 triazines and urea herbicides	1 litre & spiking concentrate	205
04/02/2020	FWTU1-DRW1	DWC1508	real drinking water	group 15 triazines and urea herbicides	1 litre & spiking concentrate	205

[F] test incurs courier charges

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
15 triazines and urea herbicides	isoproturon	0.01 – 0.15 µg/l
	diuron	0.01 – 0.15 µg/l
	linuron	0.01 – 0.15 µg/l
	chlortoluron	0.01 – 0.15 µg/l
	monuron	0.01 – 0.15 µg/l
	methabenzthiazuron	0.01 – 0.15 µg/l
	diflufenican	0.01 – 0.15 µg/l
	metamitron	0.01 – 0.15 µg/l
	simazine	0.01 – 0.15 µg/l
	atrazine	0.01 – 0.15 µg/l
	propazine	0.01 – 0.15 µg/l
	cyanazine	0.01 – 0.15 µg/l
	trietazine	0.01 – 0.15 µg/l
	prometryn	0.01 – 0.15 µg/l
	terbutryn	0.01 – 0.15 µg/l
	ametryn	0.01 – 0.15 µg/l
	carbetamide	0.01 – 0.15 µg/l
	pirimicarb	0.01 – 0.15 µg/l

Group 16 – Cyanide (total)

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/03/2019	FWTC1-DRW1	DWC1611	standard concentrate	group 16 cyanide (total)	3 ml (for dil. to 1 l)	78
21/05/2019	FWTC1-DRW1	DWC1612	standard concentrate	group 16 cyanide (total)	3 ml (for dil. to 1 l)	80
30/07/2019	FWTC1-DRW1	DWC1613	standard concentrate	group 16 cyanide (total)	3 ml (for dil. to 1 l)	80
19/11/2019	FWTC1-DRW1	DWC1614	standard concentrate	group 16 cyanide (total)	3 ml (for dil. to 1 l)	80
17/03/2020	FWTC1-DRW1	DWC1615	standard concentrate	group 16 cyanide (total)	3 ml (for dil. to 1 l)	80

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
16 cyanide (total)	total cyanide	0.01 – 0.10 mg/l

Group 17 – Haloacetic Acids

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
14/05/2019	FWHA1-DRW1	DWC1705	ultra-pure water	group 17 haloaceteic acids	1 litre & spiking concentrate	205
12/11/2019	FWHA1-DRW1	DWC1706	ultra-pure water	group 17 haloaceteic acids	1 litre standard concentrate	205

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
17 haloacetic acids	monochloroacetic acid (MCA)	5.0 – 50 µg/l
	dichloroacetic acid (DCA)	5.0 – 50 µg/l
	trichloroacetic acid (TCA)	5.0 – 50 µg/l
	Monobromoacetic acid (MBA)	5.0 – 50 µg/l
	dibromoacetic acid (DBA)	5.0 – 50 µg/l

Group 18 – Hexavalent Chromium (CrVI)

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/03/2019	FWHC1-DRW1	DWC1804	standard concentrate	group 18 hexavalent chromium (CrVI)	3 ml (for dil. to 1 l)	87
21/05/2019	FWHC1-DRW1	DWC1805	standard concentrate	group 18 hexavalent chromium (CrVI)	3 ml (for dil. to 1 l)	90
30/07/2019	FWHC1-DRW1	DWC1806	standard concentrate	group 18 hexavalent chromium (CrVI)	3 ml (for dil. to 1 l)	90
19/11/2019	FWHC1-DRW1	DWC1807	standard concentrate	group 18 hexavalent chromium (CrVI)	3 ml (for dil. to 1 l)	90
17/03/2020	FWHC1-DRW1	DWC1808	standard concentrate	group 18 hexavalent chromium (CrVI)	3 ml (for dil. to 1 l)	90

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
18 chromium (VI)	hexavalent chromium (CrVI)	5.0 – 50 µg/l

Group 19 – Fluorosurfactants

PLEASE NOTE:

- The spiking concentrate is supplied in a small vial so take care not to overlook it within the protective packing material around the much larger bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
02/07/2019	FWFL1-DRW1	DWC1901	ultra-pure water	group 19 fluorosurfactants	1 litre& spiking concentrate	120
04/02/2020	FWFL1-DRW1	DWC1902	ultra-pure water	group 19 fluorosurfactants	1 litre& spiking concentrate	120

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
19 fluorosurfactants	perfluorooctane sulfonic acid (PFOS) perfluorooctanoic acid (PFOA)	0.2 – 5 µg/l 0.2 – 10 µg/l

Group 20 – Perchlorate

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
17/09/2019	FWPE1-DRW1	DWC2001	standard concentrate	group 20 perchlorate	3 ml (for dil. to 1 l)	85
17/03/2019	FWPE1-DRW1	DWC2002	standard concentrate	group 20 perchlorate	3 ml (for dil. to 1 l)	85

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
20 perchlorate	perchlorate	4 – 20 µg/l

Group 21 – Uranium

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
30/07/2019	FWUR1-DRW1	DWC2101	standard solution acidified with 0.1M nitric acid	group 21 uranium	60 ml	80
19/11/2020	FWUR1-DRW1	DWC2102	standard solution acidified with 0.1M nitric acid	group 21 uranium	60 ml	80

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
21 uranium	uranium	10 – 100 µg/l

DRINKING WATER EMERGENCY SCENARIO

This programme is aimed at testing the capabilities of a laboratory to analyse a completely unknown chemically contaminated drinking water sample on an emergency short-term rapid screening basis. **Currently these tests are not covered by our schedule of accreditation**.

Participants will be sent an incident scenario, which will detail how the possible chemical contamination may have occurred, together with contaminated drinking water samples, corresponding 'blank' drinking water samples and a sample to be tested for gross alpha and beta radioactivity. Please note, the 'blank' sample is supplied solely to allow the laboratory to compare the background matrix of the contaminated drinking water.

For a laboratory to gain maximum benefit from participation it is absolutely crucial that laboratory staff have no advance warning of the test. For this reason only the month in which the samples will be shipped are given below.

Participants are required to submit responses to the following questions:

- Is there any significant contamination of the drinking water?
- If so, what is in the water? and the approximate concentration(s)
- Do you have any analytical information that you feel would help the water company to decide if this water could be safely used for non-drinking purposes, e.g. bathing, washing, laundry etc.
- What methods were used to detect the contaminant(s)?
- Were any screening tests used?

Results must be e-mailed to Fapas®. The closing date for submission of results is 7 working days from the start date for the exercise.

Laboratories will be informed by e-mail within 1 day of the closing date of the list of contaminants knowingly added to the test samples. A full report on the test will be available within six weeks.

Once per year a Discussion Forum is held at Fera, York, to discuss the outcomes of each emergency test. The meeting is an important opportunity for participants to share information on detecting the contaminants present. The cost for participating in the meeting is included in the price for participation in these tests, maximum of 2 people per organisation attending. All discussions at the meeting are held under the Chatham House Rule, i.e. participants are free to use the information received but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
May 2019	FWEM1-DRW1	EMY38	drinking water	contamination Incident	various, see below	660
Oct 2019	FWEM1-DRW1	EMY39	drinking water	contamination Incident	various see below	660

Supplied Samples

Sample	Supplied	Comment
contaminated drinking water	2 x 1 litre glass bottles'	for analysis of 'organics'
	1 x 1 litre PET bottle	for analysis of 'physicals'
	1 x 250 ml polypropylene bottle	for analysis of 'metals', NB this sample is acidified (0.1M nitric acid)
blank drinking water	2 x 1 litre glass bottles'	for analysis of 'organics'
	1 x 1 litre PET bottle	for analysis of 'physicals'
	1 x 250 ml polypropylene bottle	for analysis of 'metals', NB this sample is acidified (0.1M nitric acid)
radioactivity drinking water	1 x 500 ml PET bottle	only for gross alpha and beta levels at above 1 Bq/l, NB this sample is acidified (0.1M nitric acid)

DRINKING WATER TASTE & ODOUR CHEMICAL IDENTIFICATION

This programme is aimed at testing the capabilities of a laboratory to analyse a chemically contaminated drinking water sample for completely unknown compound(s) which may produce a taste or odour. Currently these tests are not covered by our schedule of accreditation.

Participating laboratories must NOT undertake any taste (organoleptic) testing as the samples supplied may contain toxic chemicals

Participants will be sent a drinking water sample contaminated with chemical(s) known to produce taste and odour problems, together with a corresponding 'blank' drinking water sample, which is supplied solely to allow the laboratory to compare the background matrix of the contaminated drinking water.

Participants are required to submit responses to the following questions:

- What taste and odour producing chemical(s) are in the drinking water?
  *NB participants must **not** undertake any taste (organoleptic) testing*
- What is your estimated detection limit for this chemical?
- Where may this chemical have originated from?
- What methods were used to detect the taste and odour contaminant(s)?

Results must be emailed to Fapas®. The closing date for submission of results will be 3 weeks from the start date for the exercise.

Laboratories will be informed by e-mail within 1 day of the closing date of the list of contaminants knowingly added to the test samples. A full report on the test will be available within six weeks.

The outcome of each taste and odour contamination test is considered at an annual Discussion Forum, held at Fera, York. All discussions at this meeting are held under the Chatham House Rule, i.e. participants are free to use the information received but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed. This allows participants the opportunity to share freely information on detecting the contaminant(s) present. The cost for participating in the meeting is included in the price for participation in this test, with a maximum of 2 people per organisation attending.

PLEASE NOTE:

- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/07/2019	FWTO1-DRW1	TOCHEM08	drinking water	taste and odour chemicals	2 x 1 litre	499

Available Samples

Sample	Supplied	Comment
contaminated drinking water	2 x 1 litre glass bottles	for analysis of 'organics' *participants should **not** undertake any taste (organoleptic) testing on this sample*
blank drinking water	2 x 1 litre glass bottles	for analysis of 'organics' *participants should **not** undertake any taste (organoleptic) testing on this sample*

ENVIRONMENTAL WASTE WATER CHEMISTRY

The test materials supplied are standard concentrates or standard solutions.

All Groups, except 2 & 4 require dilution with your laboratory's reagent water before analysis. Full instructions regarding this dilution step will be provided.

When diluted, the test materials will contain levels of contaminants usually, found in waste water / effluent samples.

The volume of concentrate supplied is given below together with the dilution required.

Group 1 – Demand

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWDE1-EWW1	WW0116	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	70
09/04/2019	FWDE1-EWW1	WW0117	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72
18/06/2019	FWDE1-EWW1	WW0118	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72
06/08/2019	FWDE1-EWW1	WW0119	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72
15/10/2019	FWDE1-EWW1	WW0120	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72
03/12/2019	FWDE1-EWW1	WW0121	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72
11/02/2020	FWDE1-EWW1	WW0122	standard concentrate	group 1 demand	20 ml (for dil. to 1 l)	72

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
1 demand	BOD 5-day COD TOC	6.0 – 250 mg/l 6.0 – 250 mg/l 6.0 – 250 mg/l

Group 2 – Residue

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWRE1-EWW1	WW0216	standard solution	group 2 residue	500 ml (no dil. req.)	80
09/04/2019	FWRE1-EWW1	WW0217	standard solution	group 2 residue	500 ml (no dil. req.)	82
18/06/2019	FWRE1-EWW1	WW0218	standard solution	group 2 residue	500 ml (no dil. req.)	82
06/08/2019	FWRE1-EWW1	WW0219	standard solution	group 2 residue	500 ml (no dil. req.)	82
15/10/2019	FWRE1-EWW1	WW0220	standard solution	group 2 residue	500 ml (no dil. req.)	82
03/12/2019	FWRE1-EWW1	WW0221	standard solution	group 2 residue	500 ml (no dil. req.)	82
11/02/2020	FWRE1-EWW1	WW0222	standard solution	group 2 residue	500 ml (no dil. req.)	82

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
2 residue	dissolved solids @ 180°c	23 – 675 mg/l
	suspended solids	23 – 675 mg/l
	total solids	23 – 675 mg/l

Group 3 – Routine Components

- **All** tests incur courier charges

Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWNU1-EWW1	WW0316	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	85
09/04/2019	FWNU1-EWW1	WW0317	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88
18/06/2019	FWNU1-EWW1	WW0318	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88
06/08/2019	FWNU1-EWW1	WW0319	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88
15/10/2019	FWNU1-EWW1	WW0320	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88
03/12/2019	FWNU1-EWW1	WW0321	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88
11/02/2020	FWNU1-EWW1	WW0322	standard concentrate	group 3 routine components	4 x 60 ml (for dil. to 1 l)	88

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
3 routine components	nitrate (as N)	0.5 – 50 mg/l
	nitrite (as N)	0.2 – 10 mg/l
	ammonia (as N)	0.2 – 20 mg/l
	chloride	10.0 – 500 mg/l
	orthophosphate (as P)	1.0 – 100 mg/l
	sulphate (as SO_4)	10.0 – 500 mg/l
	total phosphorus (as P)	0.2 – 5 mg/l
	kjeldahl nitrogen (as N)	2.0 – 50 mg/l
	total nitrogen (as N)	2.0 – 50 mg/l

Group 4 – pH and Conductivity

- **All** tests incur courier charges

Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWPH1-EWW1	WW0416	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	74
09/04/2019	FWPH1-EWW1	WW0417	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76
18/06/2019	FWPH1-EWW1	WW0418	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76
06/08/2019	FWPH1-EWW1	WW0419	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76
15/10/2019	FWPH1-EWW1	WW0420	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76
03/12/2019	FWPH1-EWW1	WW0421	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76
11/02/2020	FWPH1-EWW1	WW0422	standard solution	group 4 pH & conductivity	2 x 125 ml (no dil. req.)	76

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
4 pH & conductivity	pH electrical conductivity @ 25°c	1.0 – 13.0 pH units 200 – 2000 µS/cm @ 25°C

Group 5 – Trace Metals 1

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWTM1-EWW1	WW0516	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	99
09/04/2019	FWTM1-EWW1	WW0517	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102
18/06/2019	FWTM1-EWW1	WW0518	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102
06/08/2019	FWTM1-EWW1	WW0519	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102
15/10/2019	FWTM1-EWW1	WW0520	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102
03/12/2019	FWTM1-EWW1	WW0521	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102
11/02/2020	FWTM1-EWW1	WW0522	standard concentrate	group 5 trace metals 1	20 ml (for dil. to 1 l)	102

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
5 trace metals 1	aluminium	200 – 4000 µg/l
	arsenic	70 – 900
	beryllium	8 – 900
	cadmium	8 – 750
	chromium (total)	17 – 1000
	cobalt	28 – 1000
	copper	40 – 900
	iron	200 – 4000
	lead	70 – 3000
	manganese	70 – 4000
	mercury	2 – 30
	nickel	80 – 3000
	selenium	90 – 2000
	vanadium	55 – 2000
	zinc	100 – 2000

Group 6 – Trace Metals 2

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWTM2-EWW1	WW0616	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	93
09/04/2019	FWTM2-EWW1	WW0617	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96
18/06/2019	FWTM2-EWW1	WW0618	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96
06/08/2019	FWTM2-EWW1	WW0619	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96
15/10/2019	FWTM2-EWW1	WW0620	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96
03/12/2019	FWTM2-EWW1	WW0621	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96
11/02/2020	FWTM2-EWW1	WW0622	standard concentrate	group 6 Trace Metals 2	20 ml (for dil. to 1 l)	96

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
6 Trace Metals 2	antimony	95 – 900 µg/l
	barium	100 – 2500
	boron	800 – 2000
	molybdenum	60 – 600
	silver	26 – 600
	strontium	30 – 300
	thallium	60 – 900

Group 7 – Hexavalent Chromium (CrVI)

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWHC1-EWW1	WW0716	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	66
09/04/2019	FWHC1-EWW1	WW0717	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68
18/06/2019	FWHC1-EWW1	WW0718	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68
06/08/2019	FWHC1-EWW1	WW0719	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68
15/10/2019	FWHC1-EWW1	WW0720	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68
03/12/2019	FWHC1-EWW1	WW0721	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68
11/02/2020	FWHC1-EWW1	WW0722	standard concentrate	group 7 chromium (VI)	20 ml (for dil. to 1 l)	68

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
7 chromium (VI)	hexavalent chromium (CrVI)	45 – 880 µg/l

Group 8 – Minerals

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWMI1-EWW1	WW0816	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	60
09/04/2019	FWMI1-EWW1	WW0817	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62
18/06/2019	FWMI1-EWW1	WW0818	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62
06/08/2019	FWMI1-EWW1	WW0819	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62
15/10/2019	FWMI1-EWW1	WW0820	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62
03/12/2019	FWMI1-EWW1	WW0821	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62
11/02/2020	FWMI1-EWW1	WW0822	standard concentrate	group 8 minerals	2 x 20 ml (for dil. to 1 l)	62

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
8 minerals	alkalinity	10 – 120 (as $CaCO_3$) mg/l
	calcium	3.5 – 110 mg/l
	total hardness	17 – 675 (as $CaCO_3$) mg/l
	magnesium	2 – 40 mg/l
	potassium	4 – 40
	sodium	6 – 100

Group 9 – Anions

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWAN1-EWW1	WW0916	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	63
09/04/2019	FWAN1-EWW1	WW0917	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65
18/06/2019	FWAN1-EWW1	WW0918	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65
06/08/2019	FWAN1-EWW1	WW0919	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65
15/10/2019	FWAN1-EWW1	WW0920	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65
03/12/2019	FWAN1-EWW1	WW0921	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65
11/02/2020	FWAN1-EWW1	WW0922	standard concentrate	group 9 anions	20 ml (for dil. to 1 l)	65

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
9 anions	bromide fluoride	1 – 10 mg/l 0.3 – 4

Group 10 – Oil & Grease

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWOG1-EWW1	WW1016	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	54
09/04/2019	FWOG1-EWW1	WW1017	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56
18/06/2019	FWOG1-EWW1	WW1018	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56
06/08/2019	FWOG1-EWW1	WW1019	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56
15/10/2019	FWOG1-EWW1	WW1020	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56
03/12/2019	FWOG1-EWW1	WW1021	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56
11/02/2020	FWOG1-EWW1	WW1022	standard concentrate	group 10 oil & grease	2 ml (for dil. to 1 l)	56

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
10 oil & grease	oil & grease suitable for EPA 1664, SM 5520B and other gravimetric methods (not suitable for IR methods)	10 – 100 mg/l

Group 11 – Cyanide (total)

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWTC1-EWW1	WW1116	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	70
09/04/2019	FWTC1-EWW1	WW1117	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72
18/06/2019	FWTC1-EWW1	WW1118	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72
06/08/2019	FWTC1-EWW1	WW1119	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72
15/10/2019	FWTC1-EWW1	WW1120	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72
03/12/2019	FWTC1-EWW1	WW1121	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72
11/02/2020	FWTC1-EWW1	WW1122	standard concentrate	group 11 cyanide (total)	2 ml (for dil. to 1 l)	72

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
11 cyanide (total)	total cyanide	0.1 to 1 mg/l

Group 12 – Sulphide (total)

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWTS1-EWW1	WW1216	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	85
09/04/2019	FWTS1-EWW1	WW1217	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88
18/06/2019	FWTS1-EWW1	WW1218	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88
06/08/2019	FWTS1-EWW1	WW1219	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88
15/10/2019	FWTS1-EWW1	WW1220	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88
03/12/2019	FWTS1-EWW1	WW1221	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88
11/02/2020	FWTS1-EWW1	WW1222	standard concentrate	group 12 sulphide (total)	20 ml (for dil. to 1 l)	88

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
12 sulphide (total)	sulphide (total)	1 – 10 mg/l

Group 13 – Settleable Solids

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWSS1-EWW1	WW1316	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	85
09/04/2019	FWSS1-EWW1	WW1317	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88
18/06/2019	FWSS1-EWW1	WW1318	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88
06/08/2019	FWSS1-EWW1	WW1319	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88
15/10/2019	FWSS1-EWW1	WW1320	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88
03/12/2019	FWSS1-EWW1	WW1321	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88
11/02/2020	FWSS1-EWW1	WW1322	standard concentrate	group 13 settleable solids	25 g (for dil. to 1 l)	88

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
13 settleable solids	settleable solids (volumetric test using Imhoff Cone)	5 – 100 ml/l

Group 14 – Dissolved Oxygen

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWDO1-EWW1	WW1416	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	80
09/04/2019	FWDO1-EWW1	WW1417	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82
18/06/2019	FWDO1-EWW1	WW1418	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82
06/08/2019	FWDO1-EWW1	WW1419	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82
15/10/2019	FWDO1-EWW1	WW1420	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82
03/12/2019	FWDO1-EWW1	WW1421	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82
11/02/2020	FWDO1-EWW1	WW1422	standard concentrate	group 14 dissolved oxygen	2 ml (for dil. to 1 l)	82

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
14 dissolved oxygen	dissolved oxygen dissolved oxygen (Winkler)	1.0 to 100 mg/l

Group 15 – BTEX / VOC 1

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/02/2019	FWVO1-EWW1	WW1516	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	87
09/04/2019	FWVO1-EWW1	WW1517	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90
18/06/2019	FWVO1-EWW1	WW1518	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90
06/08/2019	FWVO1-EWW1	WW1519	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90
15/10/2019	FWVO1-EWW1	WW1520	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90
03/12/2019	FWVO1-EWW1	WW1521	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90
11/02/2020	FWVO1-EWW1	WW1522	standard concentrate	group 15 BTEX / VOC 1	2 ml (for dil. to 1 l)	90

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
15 BTEX / VOC 1	benzene	8 – 120 µg/l
	1,2-dichlorobenzene	8 – 100
	1,3-dichlorobenzene	9 – 125
	1,4-dichlorobenzene	8 – 115
	ethylbenzene	9 – 100
	methyl tert-butyl ether (mtbe)	15 – 100
	naphthalene	8 – 190
	toluene	7 – 100
	1,2,4-trimethylbenzene	8 – 100
	1,3,5-trimethylbenzene	8 – 100
	m+p-xylene	8 – 300
	o-xylene	8 – 300
	total xylene	20 – 300

Group 16 – Phthalates

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/06/2019	FWPT1-EWW1	WW1603	standard concentrate	group 16 phthalates	2 ml (for dil. to 1 l)	90
03/12/2019	FWPT1-EWW1	WW1604	standard concentrate	group 16 phthalates	2 ml (for dil. to 1 l)	90

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
16 phthalates	bis (2-ethylhexyl) phthalate	8 – 50 µg/l
	butyl benzyl phthalate	8 – 50 µg/l
	di-n-butyl phthalate	8 – 50 µg/l
	diethyl phthalate	8 – 50 µg/l
	dimethyl phthalate	8 – 50 µg/l
	di-n-octyl phthalate	8 – 50 µg/l

ENVIRONMENTAL HIGH SALINITY WATER CHEMISTRY

Full volume *simulated seawater* samples made using NaCl with salinity of 3.5%.

Group 1 – Complex Nutrients

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FWCN1-HSW1	HS0108	simulated seawater	group 1 complex nutrients	500 ml	162
10/12/2019	FWCN1-HSW1	HS0109	simulated seawater	group 1 complex nutrients	500 ml	162

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
1 complex nutrients	Kjeldahl nitrogen (total) (TKN) nitrogen (total) phosphorus (total)	1.5 – 35 mg/l 1.5 – 35 mg/l 0.5 – 10 mg/l

Group 2 – Simple Nutrients

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FWSN1-HSW1	HS0208	simulated seawater	group 2 simple nutrients	500 ml	162
10/12/2019	FWSN1-HSW1	HS0209	simulated seawater	group 2 simple nutrients	500 ml	162

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
2 Simple Nutrients	ammonia as N nitrate as N nitrate+nitrite as N nitrite as N orthophosphate as P	0.650 – 19.0 mg/l 0.250 – 40.0 mg/l 0.250 – 40.0mg/l 0.400 – 4.00 mg/l 0.500 – 5.50 mg/l

Group 3 – Minerals

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FWMI1-HSW1	HS0308	simulated seawater	group 3 minerals	500 ml	192
10/12/2019	FWMI1-HSW1	HS0309	simulated seawater	group 3 minerals	500 ml	192

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
3 minerals	calcium, Ca	25 – 110 mg/l
	magnesium, Mg	2 – 40 mg/l
	potassium, K	4 – 40 mg/l
	alkalinity as $CaCO_3$	10 – 100000 mg/l
	conductivity (25ºC)	0.00 – 100 S/cm
	hardness (total) as $CaCO_3$	8.7 – 275 mg/l
	pH	5 – 10 units

Group 4 – Trace Metals 1

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FWTM3-HSW1	HS0408	simulated seawater	group 4 trace metals 1	500 ml	162
10/12/2019	FWTM3-HSW1	HS0409	simulated seawater	group 4 trace metals 1	500 ml	162

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
4 trace metals 1	Aluminium	0 – 10000 µg/l
	Arsenic	0 – 10000 µg/l
	Beryllium	0 – 10000 µg/l
	Cadmium	0 – 10000 µg/l
	Chromium	0 – 10000 µg/l
	Cobalt	0 – 10000 µg/l
	Copper	0 – 10000 µg/l
	Iron	0 – 10000 µg/l
	Lead	0 – 10000 µg/l
	Manganese	0 – 10000 µg/l
	Mercury	0 – 10000 µg/l
	Nickel	0 – 10000 µg/l
	Selenium	0 – 10000 µg/l

Group 5 – Trace Metals 2

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FWTM4-HSW1	HS0508	simulated seawater	group 5 trace metals 2	500 ml	162
10/12/2019	FWTM4-HSW1	HS0509	simulated seawater	group 5 trace metals 2	500 ml	162

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
5 trace metals 2	Antimony, Sb	95 – 900 µg/l
	Barium, Ba	100 – 2500 µg/l
	Boron, B	800 – 2000 µg/l
	Molybdenum, Mo	60 – 600 µg/l
	Silver, Ag	26 – 600 µg/l
	Strontium, Sr	30 – 300 µg/l
	Thallium, Tl	60 – 900 µg/l
	Tin, Sn	1000 – 5000 µg/l
	Titanium, Ti	80 – 300 µg/l

ENVIRONMENTAL SOIL CHEMISTRY

The sample is a certified reference material. Analytical data for Certification was obtained using USEPA SW846, 3rd edition methods 3050 (hot block) and 3051 (microwave) using **nitric acid** extraction. Analysis was carried out according to USEPA methods 6010 (ICP-EOS), 6020 (ICP-MS) and 7000 (AES). Note that nitric acid extraction is not as rigorous as aqua regia. If your laboratory method employs aqua regia to analyse soil samples for metals, then these samples may not be suitable.

- **All** tests incur courier charges

Registration / enrolment closes **four** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
02/10/2019	FWTM5-SOI1	SL0106	soil	metals	6 – 8 g	163

Footnotes
[F] test incurs courier charges

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
metals	cadmium	1.0 – 400 mg/kg
	lead	10 – 2000 mg/kg
	chromium	10 – 500 mg/kg
	arsenic	1 – 500 mg/kg
	barium	30 – 2500 mg/kg
	nickel	1 – 200 mg/kg
	copper	2 – 200 mg/kg
	zinc	10 – 200 mg/kg
	mercury	0.1 – 200 mg/kg

ENVIRONMENTAL SURFACE WATER CHEMISTRY

The surface water provided is sourced from a clean river, reservoir or lake.

Groups 1 and 2 – Major Inorganic and Routine Components

PLEASE NOTE:

- If you order both Group 1 **AND** Group 2 you will only be sent **ONE** 1 litre bottle of water.
- **All** tests incur courier charges
- Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
29/01/2019	FWIC1-SUW1	SW0107	surface water	group 1 major inorganic components	1 litre & spiking concentrate	88
29/01/2019	FWRC1-SUW1	SW0207	surface water	group 2 routine components	1 litre & spiking concentrate	88
25/06/2019	FWIC1-SUW1	SW0108	surface water	group 1 major inorganic components	1 litre & spiking concentrate	91
25/06/2019	FWRC1-SUW1	SW0208	surface water	group 2 routine components	1 litre & spiking concentrate	91
28/01/2020	FWIC1-SUW1	SW0109	surface water	group 1 major inorganic components	1 litre & spiking concentrate	91
28/01/2020	FWRC1-SUW1	SW0209	surface water	group 2 routine components	1 litre & spiking concentrate	91

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
1 major inorganic components	sodium potassium chloride calcium magnesium alkalinity total hardness total phosphorus fluoride sulphate	5.0 – 50 mg/l 0.3 – 3.0 mg/l 6.0 – 50 mg/l 10 – 150 mg/l 1.0 – 15 mg/l 30 – 300 mg HCO_3/l 30 – 130 mg Ca/l 100 – 3000 µg P/l 150 – 1800 µg/l 5.0 – 100 mg/l
2 routine components	nitrite nitrate ammonium TOC PI colour (filtered) SR phosphate pH turbidity conductivity @ 20°C	0.02 – 0.6 mg NO_2/l 2.0 – 60 mg NO_3/l 0.1 – 0.6 mg NH_4/l 0.2 – 5.0 mg/l 0.2 – 5.0 mg/l 0.2 – 30 HAZEN 1.0 – 1500 µg P/l 6.0 – 10.0 pH units 0.05 – 10.0 NTU 100 – 600 µS/cm @ 200C

Group 3 – Metals

Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
29/01/2019	FWME1-SUW1	SW0307	surface water acidified with 0.5% nitric acid	group 3 metals	500 ml & standard solution	170
25/06/2019	FWME1-SUW1	SW0308	surface water acidified with 0.5% nitric acid	group 3 metals	500 ml & standard solution	175
28/01/2020	FWME1-SUW1	SW0309	surface water acidified with 0.5% nitric acid	group 3 metals	500 ml & standard solution	175

Footnotes
[F] test incurs courier charges

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
3 metals	iron	15 – 400 µg/l
	manganese	10 – 70 µg/l
	copper	20 – 700 µg/l
	aluminium	10 – 500 µg/l
	zinc	20 – 700 µg/l
	silver	2 – 15 µg/l
	barium	10 – 700 µg/l
	boron	25 – 1500 µg/l
	strontium	10 – 1000 µg/l
	lithium	10 – 100 µg/l

Group 4 – Toxic Metals

Registration / enrolment closes **two** weeks before the advertised dispatch date.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
29/01/2019	FWTX1-SUW1	SW0407	surface water acidified with 0.5% nitric acid	group 4 toxic metals	500 ml & spiking concentrate	193
25/06/2019	FWTX1-SUW1	SW0408	surface water acidified with 0.5% nitric acid	group 4 toxic metals	500 ml & spiking concentrate	199
28/01/2020	FWTX1-SUW1	SW0409	surface water acidified with 0.5% nitric acid	group 4 toxic metals	500 ml & spiking concentrate	199

Footnotes
[F] test incurs courier charges

Analytes and Approximate Concentration Ranges

analytes group	analytes	approximate concentration ranges after dilution
4 Toxic Metals	cadmium	0.2 – 7.0 µg/l
	lead	1 – 25 µg/l
	nickel	3 – 30 µg/l
	selenium	1.0 – 15 µg/l
	arsenic	1.0 – 15 µg/l
	antimony	0.5 – 7.0 µg/l
	mercury	0.1 – 2.0 µg/l
	cobalt	2.0 – 30 µg/l
	vanadium	2.0 – 30 µg/l
	chromium	3.0 – 60 µg/l
	molybdenum	2.0 – 30 µg/l
	tin	1.0 – 100 µg/l
	beryllium	1.0 – 10 µg/

APPENDIX 1: DRINKING WATER CHEMISTRY DISTRIBUTION DETAILS

JANUARY TO JULY 2019

	Distribution Number and Date of Dispatch								
	DWC039	**DWC040**	**DWC041**	**DWC042**	**DWC043**	**DWC044**	**DWC045**	**DWC046**	**DWC047**
	21/01/2019	**05/02/2019**	**12/02/2019**	**18/03/2019**	**23/04/2019**	**14/05/2019**	**21/05/2019**	**02/07/2019**	**30/07/2019**
Group 1	DWC0117			DWC0118			DWC0119		DWC0120
Group 2	DWC0217			DWC0218			DWC0219		DWC0220
Group 3	DWC0317			DWC0318			DWC0319		DWC0320
Group 4				DWC0411			DWC0412		DWC0413
Group 5				DWC0511			DWC0512		DWC0513
Group 6			DWC0612			DWC0613			
Group 7			DWC0712			DWC0713			
Group 8			DWC0812			DWC0813			
Group 9					DWC0907				
Group 10		DWC1012			DWC1013			DWC1014	
Group 11		DWC1112			DWC1113			DWC1114	
Group 12				DWC1211			DWC1212		DWC1213
Group 15		DWC1506						DWC1507	
Group 16				DWC1611			DWC1612		DWC1613
Group 17						DWC1705			
Group 18				DWC1804			DWC1805		DWC1806
Group 19								DWC1901	
Group 20									
Group 21									DWC2101

APPENDIX 1 (continued): DRINKING WATER CHEMISTRY DISTRIBUTION DETAILS

AUGUST 2019 TO MARCH 2020

	Distribution Number and Date of Dispatch								
	DWC048	**DWC049**	**DWC050**	**DWC051**	**DWC052**	**DWC053**	**DWC054**	**DWC055**	**DWC056**
	13/08/2019	**17/09/2019**	**08/10/2019**	**12/11/2019**	**19/11/2019**	**21/01/2020**	**04/02/2020**	**18/02/2020**	**17/03/2020**
Group 1		DWC0121			DWC0122	DWC0123			DWC0124
Group 2		DWC0221			DWC0222	DWC0223			DWC0224
Group 3		DWC0321			DWC0322	DWC0323			DWC0324
Group 4					DWC0414				DWC0415
Group 5					DWC0514				DWC0515
Group 6	DWC0614			DWC0615				DWC0616	
Group 7	DWC0714			DWC0715				DWC0716	
Group 8	DWC0814			DWC0815				DWC0816	
Group 9			DWC0908						
Group 10			DWC1015				DWC1016		
Group 11			DWC1115				DWC1116		
Group 12					DWC1214				DWC1215
Group 15							DWC1508		
Group 16					DWC1614				DWC1615
Group 17				DWC1706					
Group 18					DWC1807				DWC1808
Group 19							DWC1902		
Group 20		DWC2001							DWC2002
Group 21					DWC2102				

APPENDIX 2: ENVIRONMENTAL WASTE WATER CHEMISTRY DISTRIBUTION DETAILS

JANUARY 2019 TO MARCH 2020

	Distribution Number and Date of Dispatch						
	WW016	**WW017**	**WW018**	**WW019**	**WW020**	**WW021**	**WW022**
	18/02/2019	**09/04/2019**	**18/06/2019**	**06/08/2019**	**15/10/2019**	**03/12/2019**	**11/02/2020**
Group 1 Demand	WW0116	WW0117	WW0118	WW0119	WW0120	WW0121	WW0122
Group 2 Residue	WW0216	WW0217	WW0218	WW0219	WW0220	WW0221	WW0222
Group 3 Routine Components	WW0316	WW0317	WW0318	WW0319	WW0320	WW0321	WW0322
Group 4 pH and Conductivity	WW0416	WW0417	WW0418	WW0419	WW0420	WW0421	WW0422
Group 5 Trace Metals 1	WW0516	WW0517	WW0518	WW0519	WW0520	WW0521	WW0522
Group 6 Trace Metals 2	WW0616	WW0617	WW0618	WW0619	WW0620	WW0621	WW0622
Group 7 Hexavalent Chromium (CrVI)	WW0716	WW0717	WW0718	WW0719	WW0720	WW0721	WW0722
Group 8 Minerals	WW0816	WW0817	WW0818	WW0819	WW0820	WW0821	WW0822
Group 9 Anions	WW0916	WW0917	WW0918	WW0919	WW0920	WW0921	WW0922
Group 10 Oil & Grease	WW1016	WW1017	WW1018	WW1019	WW1020	WW1021	WW1022
Group 11 Cyanide (total)	WW1116	WW1117	WW1118	WW1119	WW1120	WW1121	WW1122
Group 12 Sulphide (total)	WW1216	WW1217	WW1218	WW1219	WW1220	WW1221	WW1222
Group 13 Settleable Solids	WW1316	WW1317	WW1318	WW1319	WW1320	WW1321	WW1322
Group 14 Dissolved Oxygen	WW1416	WW1417	WW1418	WW1419	WW1420	WW1421	WW1422
Group 15 BTEX / VOC 1	WW1516	WW1517	WW1518	WW1519	WW1520	WW1521	WW1522
Group 16 Phthalates			WW1603			WW1604	

APPENDIX 3: ENVIRONMENTAL HIGH SALINITY WATER CHEMISTRY DISTRIBUTION DETAILS

JANUARY 2019 TO MARCH 2020

	Distribution Number and Date of Dispatch	
	HS008	**HS009**
	05/06/2019	**10/12/2019**
Group 1 Complex Nutrients	HS0108	HS0109
Group 2 Simple Nutrients	HS0208	HS0209
Group 3 Minerals	HS0308	HS0309
Group 4 Trace Metals 1	HS0408	HS0409
Group 5 Trace Metals 2	HS0508	HS0509

APPENDIX 4: ENVIRONMENTAL SOIL CHEMISTRY DISTRIBUTION DETAILS

JANUARY 2019 TO MARCH 2020

	Distribution Number and Date of Dispatch
	SL0106
	02/10/2019
Soil	SL0106

APPENDIX 5: ENVIRONMENTAL SURFACE WATER CHEMISTRY DISTRIBUTION DETAILS

JANUARY 2019 TO MARCH 2020

	Distribution Number and Date of Dispatch		
	SW007	**SW008**	**SW009**
	29/01/2019	**25/06/2019**	**28/01/2020**
Group 1 Major Inorganic Components	SW0107	SW0108	SW0109
Group 2 Routine Components	SW0207	SW0208	SW0209
Group 3 Metals	SW0307	SW0308	SW0309
Group 4 Toxic Metals	SW0407	SW0408	SW0409

APPENDIX 6: ORDERING INFORMATION – WATER AND ENVIRONMENTAL

Please note the information in this Appendix does not constitute our Standard Terms & Conditions for Proficiency Testing Schemes, which are available on our website, fapas.com/terms-conditions.

Notes:

a) Quantity discounts are automatically applied to your order and a breakdown is available on our website, fapas.com/discounts.

b) Carriage costs will be applied to your order at the point of checkout.

c) If you cancel an order, then Section 6.3 of our Standard Terms & Conditions for Proficiency Testing Schemes applies:

If the Customer cancels an order after 14 days of placing it and the Proficiency Test is due to take place in 30 days or more, 50% of the Fee shall be paid by the Customer. If a Customer has paid in advance, Fera shall refund 50% of the Fee. If the Customer cancels an order after 14 days and the Proficiency Test is due to take place within the next 30 days, the full Fee shall be paid by the Customer and/or no refund shall be issued.

d) The dispatch date shown is our planned dispatch date. You will be notified by email if any of the tests you order are delayed or cancelled for any reason.

e) Registrations for proficiency tests in all the Fapas® Programme's close either 14 or 28 days before the dispatch date of the test, refer to the relevant section above for exact details.

f) The approximate quantity of test material we will supply is given for each test. If your method needs more material, please indicate the number of extra test materials you require. There is a charge for additional test materials.

g) The purchase of extra test materials does not entitle you to receive an extra performance assessment in the report. You must place multiple orders for the test if you require this service. You may submit multiple results for a test, nominating one to appear in the assessment report, the others will be available for trending in Fapas® Charts.

Additional notes:

i. Dispatch

a) *If appropriate* samples are packed in insulated boxes together with ice blocks to prevent them undergoing large temperature fluctuations in transit but are they not transported in refrigerated vehicles. No dry ice will be used in dispatch. Even if these samples do not arrive refrigerated they will still be acceptable for use as they will have been chilled for the majority of their journey.

b) Please contact us if your postal dispatch has not arrived within 10 working days.

c) The tracking number of your courier consignment will be sent to the email address given for the sample contact and the delivery contact for that test. The message will indicate how to track the consignment.

d) Airway Bill Numbers are also available from the participant's secure pages on the Fapas® website.

e) It is the responsibility of the customer to monitor the progress of their courier dispatch.

f) Our microbiology packages are shipped as biological substances, category B (UN3373).

ii. Import / Customs

a) We are not responsible for damage or loss of test materials due to problems in customs or for import fees.

b) If you require special import permits for importing certain types of test material into your country, please inform us at least 3 weeks prior to dispatch date. There is a charge for this service.

c) Phytosanitary certificates can be provided for plant-based products where appropriate. There is a charge for this service. Orders for phytosanitary certificates must be placed at least three weeks before the start date of the relevant test.

iii. Results

a) Details of the results submission date can be viewed in the test instruction letters.

b) Result submission will only be allowed via the Fapas® website.

iv. Reports

a) The cost of the test includes access to an electronic copy of the report for the person placing the order and designated sample contact.

b) Reports are normally available on our website within 25 days of the closing date of the test.

c) The reports are in PDF format and are secured by a digital signature.

d) The cost of a copy of the report (PDF format) on a test in which you did *not* participate is £38 GBP.

APPENDIX 7: AGENT INFORMATION

Fapas® has a network of Agents to help you locally. Please contact your nearest office:

Argentina
Phone: +5411-4701-6262
E-mail: c.daiutolo@r-biopharmlat.com.ar

Armenia
Phone: +7 495 707 28 68
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