

Fapas[®] Water and Environmental

Proficiency Testing
Programme

2018/2019



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Proficiency Testing from **fera**

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Who We Are

Fapas® is the leading global provider of proficiency testing schemes, quality control samples and reference materials in the food sector, offering products throughout the year.

Proficiency testing in an independent check of your laboratory procedures providing you with a completely confidential assessment of your capability. Not only does participation in the relevant testing schemes allow you to demonstrate your systems and the technical ability of your staff, it will also help you gain and maintain ISO/17025 accreditation.

Established in 1990, we are an experienced, accredited provider of proficiency tests for the food and water, environmental chemistry and microbiology sectors. Taking part in our proficiency tests provides you with the confidence in your laboratory equipment, methods and staff, and assurance that you are delivering the quality results required by your customers.

We provide our participants with a confidential service that allows you to participate at a level that suits you; there is no minimum number of proficiency tests that you must take part in each year. Our system provides an easy reporting facility via our website and our comprehensive reports, which receive rigorous statistical analysis, contain method comparisons.

We also offer quality control samples and reference materials from selected food chemistry proficiency tests which can be purchased easily through our website throughout the year.

Our four Fapas® proficiency testing schemes cover food chemistry, food microbiology, GM and water and environmental analysis.



Fapas® Proficiency Tests

Proficiency Testing in Water and Environmental

Proficiency testing is an essential part of laboratory quality procedures. Taking part gives you confidence in your laboratory equipment, methods and staff, and assurance that you are delivering the quality results demanded by your customers.

The Fapas® Water and Environmental Scheme assesses the performance of laboratories in water and environmental testing sectors. The scheme satisfies the UK Drinking Water Inspectorate (DWI) requirements for the Water Supply (Water Quality) Regulation 2016: Regulation 16, Appendix 1 for both chemical and microbiological parameters.

There are ten areas available under Fapas® – Water and Environmental: drinking water chemistry; microbiology; parasitology; chemical contamination emergency; taste & odour chemical identification; high salinity water; Legionella; soil chemistry; waste water chemistry; and surface water chemistry.



Participation can be at a level that suits your business – from taking part in one of our scheduled tests, through to company-specific closed tests.

Results from each proficiency test receive rigorous statistical analysis, ensuring you have clear feedback on your performance. Comprehensive reports provide information on analytical methods used by other participants. We can provide problem-solving consultancy on your laboratory procedures if required.

Participation in Fapas® is easy. Arrangements can be made through our network of agents, or via our website, fapas.com. Fapas® – Water and Environmental follows international guidelines for proficiency testing and is accredited by UKAS to ISO/IEC 17043.



Drinking Water Chemistry

Mainly real drinking water samples for the analysis of inorganics, metals and organics.

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
1 Major Inorganic Components	sodium potassium chloride calcium magnesium alkalinity total hardness total phosphorus fluoride sulphate	Real drinking water	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	1 litre
2 Routine Components	nitrite nitrate ammonium TOC PI colour (filtered) SR phosphate pH turbidity conductivity @ 20°C	Real drinking water	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°C	
3 Routine Metals	cadmium lead iron manganese aluminium copper zinc nickel chromium	Real drinking water	0.5 – 7.0 µg/l 1.0 – 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	500 ml



Drinking Water Chemistry (continued)

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
4 Non-Routine Metals	mercury barium boron arsenic selenium antimony silver strontium lithium cobalt vanadium molybdenum tin beryllium	Standard concentrates or standard solutions in ultra-pure water	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 1.0 – 100 µg/l 2.0 – 10 µg/l	500 ml
5 Inorganic Disinfection By- products	bromide bromate chlorite chlorate	Standard solution in ultra-pure water	5 – 200 µg/l 1.0 – 20 µg/l 1.0 – 200 µg/l 1.0 – 1000 µg/l	125 ml
6 Trihalomethanes /Chlorinated Solvents	chloroform dichloromethane bromodichloromethane dibromochloromethane bromoform trichloroethene tetrachloroethene carbon tetrachloride 1,2-dichloroethane 1,2,3-trichlorobenzene 1,2,4-trichlorobenzene 1,3,5-trichlorobenzene hexachlorobutadiene 1,1,1-trichloroethane	Ultra-pure water + spiking concentrate in methanol	2.0 – 100 µg/l 2.0 – 40 µg/l 2.0 – 50 µg/l 2.0 – 50 µg/l 2.0 – 50 µg/l 0.5 – 10 µg/l 0.5 – 10 µg/l 0.5 – 4.0 µg/l 0.5 – 4.0 µg/l 0.1 – 2.0 µg/l 0.1 – 2.0 µg/l 0.1 – 2.0 µg/l 0.01 – 0.15 µg/l 0.1 – 2.0 µg/l	1 litre
7 Polycyclic Aromatic Hydrocarbons	anthracene fluoranthene benzo (b) fluoranthene benzo (k) fluoranthene, naphthalene benzo (a) pyrene benzo (ghi) perylene indeno (1,2,3-cd) pyrene	Real drinking water + spiking concentrate in methanol	0.005 – 0.05 µg/l 0.01 – 0.10 µg/l 0.003 – 0.050 µg/l 0.003 – 0.050 µg/l 0.005 – 0.050 µg/l 0.002 – 0.020 µg/l 0.010 – 0.070 µg/l 0.010 – 0.070 µg/l	1 litre



Drinking Water Chemistry (continued)

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
8 OP Pesticides	alachlor	Real drinking water + spiking concentrate in methanol	0.01 – 0.15 µg/l	1 litre
	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	
9 Acid Herbicides	MCPA	Real drinking water + spiking concentrate in methanol	0.01 – 0.15 µg/l	1 litre
	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	



Drinking Water Chemistry (continued)

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
10 OC Pesticides	endrin dieldrin Aldrin p,p' DDT o,p'-DDT p,p'-DDE o,p'-DDE p,p'-DDD o,p-DDD (TDE) hexachlorocyclohexane (alpha) hexachlorocyclohexane (beta) hexachlorocyclohexane (delta) lindane (gamma HCH) trifluralin alpha endosulphan beta endosulphan Hexachlorobenzene heptachlor heptachlor epoxide (total), pentachlorobenzene pendimethalin	Real drinking water + spiking concentrate in methanol	0.01 – 0.15 µg/l 0.006 – 0.05 µg/l 0.006 – 0.05 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l 0.006 – 0.04 µg/l 0.006 – 0.04 µg/l 0.01 – 0.15 µg/l 0.01 – 0.15 µg/l	1 litre



Drinking Water Chemistry (continued)

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
11 BTEX	benzene	Real drinking water + spiking concentrate in methanol	0.1 – 1.5 µg/l	1 litre
	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	
12 Chlorine	total & free chlorine	Concentrate for dilution up to 1 litre	0.5 – 3.0 mg/l	3 ml
15 Triazines and Urea Herbicides	isoproturon	Real drinking water + spiking concentrate in methanol	0.01 – 0.15 µg/l	1 litre
	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	



Drinking Water Chemistry (continued)

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)
16 Total Cyanide	total cyanide	Concentrate for dilution up to 1 litre	0.01 – 0.10 mg/l	3 ml
17 Haloacetic Acids	monochloroacetic acid (MCA) dichloroacetic acid (DCA) trichloroacetic acid (TCA) Monobromoacetic acid (MBA) dibromoacetic acid (DBA)	Ultra-pure water + spiking concentrate in methyl tert-butyl ether	5.0 – 50 µg/l 5.0 – 50 µg/l 5.0 – 50 µg/l 5.0 – 50 µg/l 5.0 – 50 µg/l	1 litre
18	Hexavalent Chromium (CrVI)	Concentrate for dilution up to 1 litre	5.0 – 50 µg/l	2 ml



Drinking Water Chemistry Timetable January to April 2018

distribution	DWC025	DWC026	DWC027	DWC028	DWC029	DWC030
date	15/01/2018	22/01/2018	12/02/2018	20/03/2018	03/04/2018	23/04/2018
Group 1		DWC0111		DWC0112		DWC0113
Group 2		DWC0211		DWC0212		DWC0213
Group 3		DWC0311		DWC0312		DWC0313
Group 4		DWC0407				DWC0408
Group 5		DWC0507				DWC0508
Group 6			DWC0608			
Group 7			DWC0708			
Group 8			DWC0808			
Group 9					DWC0905	
Group 10	DWC1008				DWC1009	
Group 11	DWC1108				DWC1109	
Group 12		DWC1207				DWC1208
Group 15	DWC1504					
Group 16		DWC1607				DWC1608
Group 17						
Group 18						DWC1801

Closing date for registrations for Groups 9, 12, 15, 16 & 17 is **four** weeks before the start dates for these tests.

Closing date for registrations for all other Groups is **two** weeks before the start date of these tests



Drinking Water Chemistry Timetable May to December 2018

distribution	DWC031	DWC032	DWC033	DWC034	DWC035	DWC036	DWC037	DWC038
date	21/05/2018	09/07/2018	31/07/2018	14/08/2018	17/09/2018	08/10/2017	12/11/2018	19/11/2018
Group 1		DWC0114			DWC0115		DWC0116	
Group 2		DWC0214			DWC0215		DWC0216	
Group 3		DWC0314			DWC0315		DWC0316	
Group 4		DWC0409					DWC0410	
Group 5		DWC0509					DWC0510	
Group 6	DWC0609			DWC0610				DWC0611
Group 7	DWC0709			DWC0710				DWC0711
Group 8	DWC0809			DWC0810				DWC0811
Group 9						DWC0906		
Group 10			DWC1010			DWC1011		
Group 11			DWC1110			DWC1111		
Group 12		DWC1209					DWC1210	
Group 15			DWC1505					
Group 16		DWC1609					DWC1610	
Group 17	DWC1703							DWC1704
Group 18		DWC1802					DWC1803	

Closing date for registrations for Groups 9, 12, 15, 16 & 17 is **four** weeks before the start dates for these tests.

Closing date for registrations for all other Groups is **two** weeks before the start date of these tests



Drinking Water Chemistry Timetable January to March 2019

distribution	DWC039	DWC040	DWC041	DWC042
date	21/01/2019	05/02/2019	12/02/2019	18/03/2019
Group 1	DWC0117			DWC0118
Group 2	DWC0217			DWC0218
Group 3	DWC0317			DWC0318
Group 4				DWC0411
Group 5				DWC0511
Group 6			DWC0612	
Group 7			DWC0712	
Group 8			DWC0812	
Group 9				
Group 10		DWC1012		
Group 11		DWC1112		
Group 12				DWC1211
Group 15		DWC1506		
Group 16				DWC1611
Group 17				
Group 18				DWC1804

Closing date for registrations for Groups 9, 12, 15, 16 & 17 is **four** weeks before the start dates for these tests.

Closing date for registrations for all other Groups is **two** weeks before the start date of these tests



Drinking Water Microbiology

The samples supplied are lyophilised vials, which require reconstituting with your laboratory's own sterile deionised water. Depending on your order up to four samples may be supplied for each distribution:

Sample A: For Total Coliforms & *Escherichia coli*, this sample contains *Escherichia coli* and another coliform organism.

Sample B: For Colony Count (22°C/3 days), Colony Count (37°C/2 days).

Sample C: For Enterococci together with *Clostridium perfringens** **AND** *Pseudomonas aeruginosa*.
*NB another *Clostridium*/*Pseudomonas* species may be added to test laboratories' ability to confirm *Clostridium perfringens* / *Pseudomonas aeruginosa*.

Organism Identification: This is a lyophilised vial which requires rehydrating. The vial has been inoculated with a Gram negative rod-shaped organism **but please note**, occasionally a Gram positive organism may be used. The organism chosen is one which is routinely recovered from water.



Drinking Water Microbiology Timetable: January to July 2018

Distribution Number and Dispatch Date						
	DWM020	DWM021	DWM022	DWM023	DWM024	DWM025
Test	23/01/2018	06/03/2018	17/04/2018	15/05/2018	12/06/2018	17/07/2018
Total coliforms and <i>Escherichia coli</i>	DWM0120	DWM0121	DWM0122	DWM0123	DWM0124	DWM0125
Colony Counts (22°C/3 days)	DWM0220	DWM0221	DWM0222	DWM0223	DWM0224	DWM0225
Colony Counts (37°C/2 day)	DWM0220	DWM0221	DWM0222	DWM0223	DWM0224	DWM0225
Enterococci	DWM0320	DWM0321	DWM0322	DWM0323	DWM0324	DWM0325
<i>Clostridium perfringens</i>	DWM0320	DWM0321	DWM0322	DWM0323	DWM0324	DWM0325
<i>Pseudomonas aeruginosa</i>	DWM0320	DWM0321	DWM0322	DWM0323	DWM0324	DWM0325
Organism Identification	DWM0407			DWM0408		

Closing date for registrations is **four** weeks before the start date of these tests

Drinking Water Microbiology Timetable: September 2018 to March 2019

Distribution Number and Dispatch Date						
	DWM026	DWM027	DWM028	DWM029	DWM030	DWM031
Test	11/09/2018	09/10/2018	06/11/2018	04/12/2018	22/01/2019	05/03/2019
Total coliforms and <i>Escherichia coli</i>	DWM0126	DWM0127	DWM0128	DWM0129	DWM0130	DWM0131
Colony Counts (22°C/3 days)	DWM0226	DWM0227	DWM0228	DWM0229	DWM0230	DWM0231
Colony Counts (37°C/2 day)	DWM0226	DWM0227	DWM0228	DWM0229	DWM0230	DWM0231
Enterococci	DWM0326	DWM0327	DWM0328	DWM0329	DWM0330	DWM0331
<i>Clostridium perfringens</i>	DWM0326	DWM0327	DWM0328	DWM0329	DWM0330	DWM0331
<i>Pseudomonas aeruginosa</i>	DWM0326	DWM0327	DWM0328	DWM0329	DWM0330	DWM0331
Organism Identification	DWM0409		DWM0410			DWM0411

Closing date for registrations is **four** weeks before the start date of these tests



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.

Participating laboratories should 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. Please note, the 'blank' sample 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 should **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 e-mailed to Fapas®. The closing date for submission of results will be 3 weeks from the start date for the exercise.

Once per year a Discussion Forum is held at Fera, York, to discuss the outcomes of each taste and odour contamination test. The meeting is an important opportunity for participants to share 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. Chatham House Rules apply at these discussion forums.



Drinking Water Taste & Odour Chemical Identification Timetable: January 2018 to March 2019

Test Details		
dispatch date	distribution number	test
19/07/2018	TOCHEM07 ^φ	Taste & Odour Chemical Identification

^φ Test is not currently covered by our schedule of accreditation

Closing date for registrations is **two** weeks before the start date for this test

Contaminated Drinking Water Samples, labelled TASTE & ODOUR CHEMICAL CONTAMINATION:

- 2 x 1 litre glass bottles for analysis of 'organics'

*NB participants should **not** undertake any taste (organoleptic) testing on this sample*

Blank Drinking Water Samples, labelled BLANK:

- 2 x 1 litre glass bottles for analysis of 'organics'

*NB participants should **not** undertake any taste (organoleptic) testing on this sample*



Drinking Water Parasitology

Suspension A is a suspension of *Cryptosporidium* and/or *Giardia* in phosphate buffered saline (PBS). Approximately 1 ml is supplied. Samples may be prepared either from commercially available concentrates or formalin fixed faecal material. Participants are required to count the oocysts and cysts by fluorescence microscopy and/or any other technique that they routinely use.

Suspension B is a PBS *Cryptosporidium* oocyst and/or *Giardia* suspension. Approximately 1 ml is supplied. This suspension is added to 10 litres of tap water by the participants and then processed by the laboratory's routine analytical method.

Drinking Water Parasitology Timetable: January to December 2018

Distribution Number and Date of Dispatch						
	DWP011	DWP012	DWP013	DWP014	DWP015	DWP016
Tests	23/01/2018	06/03/2018	15/05/2018	17/07/2018	11/09/2018	06/11/2018
Suspension A	DWP0111	DWP0112	DWP0113	DWP0114	DWP0115	DWP0116
Suspension B	DWP0211	DWP0212	DWP0213	DWP0214	DWP0215	DWP0216

Closing date for registrations is **two** weeks before the start date of these tests

Drinking Water Parasitology Timetable: January to March 2019

Distribution Number and Date of Dispatch		
	DWP017	DWP018
Tests	22/01/2019	05/03/2019
Suspension A	DWP0117	DWP0118
Suspension B	DWP0217	DWP0218

Closing date for registrations is **two** weeks before the start date of these tests



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.

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.

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 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.

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. Chatham House Rules apply at these discussion forums.



Drinking Water Emergency Scenario Timetable: January 2018 to March 2019

Test Details		
dispatch date	distribution number	test
May 2018	EMY36[†]	Contamination Incident
October 2018	EMY37[†]	Contamination Incident

[†] Test is not currently covered by our schedule of accreditation

Closing date for registrations is **two** weeks before the start date for this test

Contaminated Drinking Water Samples, labelled CONTAMINATION INCIDENT:

- 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 Samples, labelled BLANK:

- 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 Sample, labelled RADIOACTIVITY:

- 1 x 500 ml PET bottle only to be tested for gross alpha and beta levels at above 1 Bq/l. NB this sample is acidified (0.1M nitric acid)



Environmental Legionella

Two lyophilised vials which require reconstitution with laboratories own sterile deionised (or distilled) water to 1litre before analysis. Participants are required to report results qualitatively, indicating whether *Legionella* spp. is detected or not detected and identify the species present. Quantitative results are requested to be expressed in cfu/l.

Environmental Legionella Timetable: January 2018 to March 2019

date	17/04/2018	09/10/2018
<i>Legionella</i> spp	LG0105	LG0106

Closing date for registrations is **four** weeks before the start date of these tests



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.

Analyte Groups	Analytes	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)	Dilution Required
1	BOD 5-day	6.0 – 250 mg/l	20 ml	to 1 l
	COD	6.0 – 250 mg/l		
	TOC	6.0 – 250 mg/l		
2	Dissolved Solids @ 180 °C	23 – 675 mg/l	500 ml	no dilution required
	Suspended Solids	23 – 675 mg/l		
	Total Solids	23 – 675 mg/l		
3	Nitrate (N)	0.5 – 50 mg/l	4 x 60ml	to 1 l
	Nitrite (N)	0.2 – 10 mg/l		
	Ammonia (N)	0.2 – 20 mg/l		
	Chloride	10.0 – 500 mg/l		
	Orthophosphate (P)	1.0 – 100 mg/l		
	Sulphate (SO ₄)	10.0 – 500 mg/l		
	Total Phosphorus (P)	0.2 – 5 mg/l		
	Kjeldahl Nitrogen (N)	2.0 – 50 mg/l		
	Total Nitrogen (N)	2.0 – 50 mg/l		
4	pH	1.0 – 13.0 pH units	2 x 125 ml	no dilution required
	Electrical Conductivity @ 25°C	200 – 2000 µS/cm @ 25°C		



Environmental Waste Water Chemistry (continued)

Analyte Groups	Analytes	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)	Dilution Required
5 Trace Metals 1	Aluminium	200 – 4000 µg/l	20 ml	to 1 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		
6 Trace Metals 2	Antimony	95 – 900 µg/l	20 ml	to 1 l
	Barium	100 – 2500		
	Boron	800 – 2000		
	Molybdenum	60 – 600		
	Silver	26 – 600		
	Strontium	30 – 300		
	Thallium	60 – 900		
7	Hexavalent Chromium	45 – 880 µg/l	20 ml	to 1 l
8	Alkalinity	10 – 120 (as CaCO ₃) mg/l	2 x 20 ml	to 1 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		
9	Bromide	1 – 10 mg/l	20 ml	to 1 l
	Fluoride	0.3 – 4		
10	Oil & Grease Suitable for EPA 1664, SM 5520B and other gravimetric methods (NOT suitable for IR methods)	10 – 100 mg/l	2 ml	to 1 l
11	Cyanide (Total)	0.1 to 1 mg/l	2 ml	to 1 l
12	Total Sulphide	1 – 10 mg/l	20 ml	to 1 l
13	Settleable Solids (Volumetric test using Imhoff cone)	5 – 100 ml/l	25 g	to 1 l
14	Dissolved Oxygen	1.0 to 100 mg/l	2 ml	to 1 l
	Dissolved Oxygen (Winkler)			



Environmental Waste Water Chemistry (continued)

Analyte Groups	Analytes	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)	Dilution Required
15 VOC 1	Benzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Methyl tert-butyl ether (MTBE) Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m+p-Xylene o-xylene Total Xylene	8 – 120 µg/l 8 – 100 9 – 125 8 – 115 9 – 100 15 – 100 8 – 190 7 – 100 8 – 100 8 – 100 8 – 300 8 – 300 20 – 300	2 ml	to 100 ml
16 Phthalates	Bis (2-ethylhexyl) phthalate Butyl Benzyl Phthalate Di-n-butyl phthalate Diethyl phthalate Dimethyl phthalate Di-n-octyl phthalate	8 – 50 µg/l 8 – 50 µg/l 8 – 50 µg/l 8 – 50 µg/l 8 – 50 µg/l 8 – 50 µg/l	2 ml	to 1 l



Environmental Waste Water Chemistry Timetable: January 2018 to March 2019

distribution	WW010	WW011	WW012	WW013	WW014	WW015	WW016
date	20/02/2018	10/04/2018	19/06/2018	06/08/2018	16/10/2018	03/12/2018	18/02/2019
Group 1	WW0110	WW0111	WW0112	WW0113	WW0114	WW0115	WW0116
Group 2	WW0210	WW0211	WW0212	WW0213	WW0214	WW0215	WW0216
Group 3	WW0310	WW0311	WW0312	WW0313	WW0314	WW0315	WW0316
Group 4	WW0410	WW0411	WW0412	WW0413	WW0414	WW0415	WW0416
Group 5	WW0510	WW0511	WW0512	WW0513	WW0514	WW0515	WW0516
Group 6	WW0610	WW0611	WW0612	WW0613	WW0614	WW0615	WW0616
Group 7	WW0710	WW0711	WW0712	WW0713	WW0714	WW0715	WW0716
Group 8	WW0810	WW0811	WW0812	WW0813	WW0814	WW0815	WW0816
Group 9	WW0910	WW0911	WW0912	WW0913	WW0914	WW0915	WW0916
Group 10	WW1010	WW1011	WW1012	WW1013	WW1014	WW1015	WW1016
Group 11	WW1110	WW1111	WW1112	WW1113	WW1114	WW1115	WW1116
Group 12	WW1210	WW1211	WW1212	WW1213	WW1214	WW1215	WW1216
Group 13	WW1310	WW1311	WW1312	WW1313	WW1314	WW1315	WW1316
Group 14	WW1410	WW1411	WW1412	WW1413	WW1414	WW1415	WW1416
Group 15	WW1510	WW1511	WW1512	WW1513	WW1514	WW1515	WW1516
Group 16			WW1601			WW1602	

Closing date for registrations is **two** weeks (for Groups 3 & 4) and **four** weeks (for Groups 1, 2 & 5-15) before the start date of these tests.



Environmental High Salinity Water Chemistry

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

Analyte Groups	Analytes	Concentration Ranges (approx)	Volume Supplied (approx)
1 Complex Nutrients	Kjeldahl nitrogen, total (TKN)	1.5-35 mg/L	500 ml
	Nitrogen, total	1.5-35 mg/l	
	Phosphorus, total	0.5-10 mg/l	
2 Simple Nutrients	Ammonia as N	0.650-19.0 mg/l	500 ml
	Nitrate as N	0.250-40.0 mg/l	
	Nitrate+nitrite as N	0.250-40.0mg/l	
	Nitrite as N	0.400-4.00 mg/l	
	Orthophosphate as P	0.500-5.50 mg/l	
3 Minerals	Calcium, Ca	25-110 mg/l	500 ml
	Magnesium, Mg	2-40 mg/l	
	Potassium, K	4-40 mg/l	
	Alkalinity as CaCO ₃	10-100000 mg/l	
	Conductivity (25°C)	0.00-100 S/cm	
	Hardness, total as CaCO ₃	8.7-275 mg/l	
	pH	5-10 units	
4 Trace Metals 1	Aluminium	0-10000 µg/l	500 ml
	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	
5 Trace Metals 2	Antimony, Sb	95-900 µg/l	500 ml
	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 High Salinity Water Chemistry Timetable: January 2018 to March 2019

distribution	HS006	HS007
date	13/06/2018	12/12/2018
Group 1	HS0106	HS0107
Group 2	HS0206	HS0207
Group 3	HS0306	HS0307
Group 4	HS0406	HS0407
Group 5	HS0506	HS0507

Closing date for registrations is **four** weeks before the start date of these tests



Environmental Soil Chemistry

Analytes	Concentration Ranges (approx, after dilution)	Volume Supplied (approx)	Dilution Required
Cadmium	1.0 – 400 mg/kg	6 – 8 g	no dilution required
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		

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.

Environmental Soil Chemistry Timetable 2018

dispatch date	distribution number	test
03/10/2018	SL0105	SL0105

Closing date for registrations is **four** weeks before the start date of this test



Environmental Surface Water Chemistry

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

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx)	Volume Supplied (approx)
1 Major Inorganic Components	sodium potassium chloride calcium magnesium alkalinity total hardness total phosphorus fluoride sulphate	surface water	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	1 litre + spiking conc
2 Routine Components	nitrite nitrate ammonium TOC PI colour (filtered) SR phosphate pH turbidity conductivity @ 20°C	surface water	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 @ 20°C	
3 Metals (in 0.5% Nitric Acid)	iron manganese copper aluminium zinc silver barium boron strontium lithium	surface water	15 – 400 µg/l 10 – 70 µg/l 20 – 700 µg/l 10 – 500 µg/l 20 – 700 µg/l 2 – 15 µg/l 10 – 700 µg/l 25 – 1500 µg/l 10 – 1000 µg/l 10 – 100 µg/l	500 ml + standard solution



Environmental Surface Water Chemistry (continued)

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

Analyte Groups	Analytes	Water Type	Concentration Ranges (approx)	Volume Supplied (approx)
4 Toxic Metals (in 0.5% Nitric Acid)	cadmium	surface water	0.2 – 7.0 µg/l	500 ml + spiking conc
	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/l	

Environmental Surface Water Chemistry Timetable: January 2018 to March 2019

distribution	SW005	SW006	SW007
date	05/03/2018	25/06/2018	29/01/2019
Group 1	SW0105	SW0106	SW0107
Group 2	SW0205	SW0206	SW0207
Group 3	SW0305	SW0306	SW0307
Group 4	SW0405	SW0406	SW0407

Closing date for registrations is **two** weeks before the start date of these tests.



Round No.	Courier	Programme name	Round Price	Extra Material Price
DWC0111	1	LEAP CHEM: 2018	123.00	60.00
DWC0112	1	LEAP CHEM: 2018	123.00	60.00
DWC0113	1	LEAP CHEM: 2018	123.00	60.00
DWC0114	1	LEAP CHEM: 2018	123.00	60.00
DWC0115	1	LEAP CHEM: 2018	123.00	60.00
DWC0116	1	LEAP CHEM: 2018	123.00	60.00
DWC0211	1	LEAP CHEM: 2018	123.00	60.00
DWC0212	1	LEAP CHEM: 2018	123.00	60.00
DWC0213	1	LEAP CHEM: 2018	123.00	60.00
DWC0214	1	LEAP CHEM: 2018	123.00	60.00
DWC0215	1	LEAP CHEM: 2018	123.00	60.00
DWC0216	1	LEAP CHEM: 2018	123.00	60.00
DWC0311	1	LEAP CHEM: 2018	185.00	60.00
DWC0312	1	LEAP CHEM: 2018	185.00	60.00
DWC0313	1	LEAP CHEM: 2018	185.00	60.00
DWC0314	1	LEAP CHEM: 2018	185.00	60.00
DWC0315	1	LEAP CHEM: 2018	185.00	60.00
DWC0316	1	LEAP CHEM: 2018	185.00	60.00
DWC0407	1	LEAP CHEM: 2018	270.00	60.00
DWC0408	1	LEAP CHEM: 2018	270.00	60.00
DWC0409	1	LEAP CHEM: 2018	270.00	60.00
DWC0410	1	LEAP CHEM: 2018	270.00	60.00
DWC0507	1	LEAP CHEM: 2018	185.00	60.00
DWC0508	1	LEAP CHEM: 2018	185.00	60.00
DWC0509	1	LEAP CHEM: 2018	185.00	60.00
DWC0510	1	LEAP CHEM: 2018	185.00	60.00
DWC0608	1	LEAP CHEM: 2018	238.00	60.00
DWC0609	1	LEAP CHEM: 2018	238.00	60.00
DWC0610	1	LEAP CHEM: 2018	238.00	60.00
DWC0611	1	LEAP CHEM: 2018	238.00	60.00
DWC0708	1	LEAP CHEM: 2018	238.00	60.00
DWC0709	1	LEAP CHEM: 2018	238.00	60.00
DWC0710	1	LEAP CHEM: 2018	238.00	60.00
DWC0711	1	LEAP CHEM: 2018	238.00	60.00
DWC0808	1	LEAP CHEM: 2018	238.00	60.00
DWC0809	1	LEAP CHEM: 2018	238.00	60.00
DWC0810	1	LEAP CHEM: 2018	238.00	60.00
DWC0811	1	LEAP CHEM: 2018	238.00	60.00
DWC0905	1	LEAP CHEM: 2018	278.00	60.00
DWC0906	1	LEAP CHEM: 2018	278.00	60.00
DWC1008	1	LEAP CHEM: 2018	238.00	60.00
DWC1009	1	LEAP CHEM: 2018	238.00	60.00
DWC1010	1	LEAP CHEM: 2018	238.00	60.00
DWC1011	1	LEAP CHEM: 2018	238.00	60.00



DWC1108	1	LEAP CHEM: 2018	238.00	60.00
DWC1109	1	LEAP CHEM: 2018	238.00	60.00
DWC1110	1	LEAP CHEM: 2018	238.00	60.00
DWC1111	1	LEAP CHEM: 2018	238.00	60.00
DWC1207	1	LEAP CHEM: 2018	109.00	60.00
DWC1208	1	LEAP CHEM: 2018	109.00	60.00
DWC1209	1	LEAP CHEM: 2018	109.00	60.00
DWC1210	1	LEAP CHEM: 2018	109.00	60.00
DWC1504	1	LEAP CHEM: 2018	278.00	60.00
DWC1505	1	LEAP CHEM: 2018	278.00	60.00
DWC1607	1	LEAP CHEM: 2018	109.00	60.00
DWC1608	1	LEAP CHEM: 2018	109.00	60.00
DWC1609	1	LEAP CHEM: 2018	109.00	60.00
DWC1610	1	LEAP CHEM: 2018	109.00	60.00
DWC1703	1	LEAP CHEM: 2018	279.00	60.00
DWC1704	1	LEAP CHEM: 2018	279.00	60.00
DWC1801	1	LEAP CHEM: 2018	122.00	85.00
DWC1802	1	LEAP CHEM: 2018	122.00	85.00
DWC1803	1	LEAP CHEM: 2018	122.00	85.00
DWC0117	1	LEAP CHEM: 2019	123.00	60.00
DWC0118	1	LEAP CHEM: 2019	123.00	60.00
DWC0217	1	LEAP CHEM: 2019	123.00	60.00
DWC0218	1	LEAP CHEM: 2019	123.00	60.00
DWC0317	1	LEAP CHEM: 2019	185.00	60.00
DWC0318	1	LEAP CHEM: 2019	185.00	60.00
DWC0411	1	LEAP CHEM: 2019	270.00	60.00
DWC0511	1	LEAP CHEM: 2019	185.00	60.00
DWC0612	1	LEAP CHEM: 2019	238.00	60.00
DWC0712	1	LEAP CHEM: 2019	238.00	60.00
DWC0812	1	LEAP CHEM: 2019	238.00	60.00
DWC1012	1	LEAP CHEM: 2019	238.00	60.00
DWC1112	1	LEAP CHEM: 2019	238.00	60.00
DWC1211	1	LEAP CHEM: 2019	109.00	60.00
DWC1506	1	LEAP CHEM: 2019	278.00	60.00
DWC1611	1	LEAP CHEM: 2019	109.00	60.00
DWC1804	1	LEAP CHEM: 2019	122.00	85.00
WW0110	1	LEAP EFF: 2018	97.00	80.00
WW0111	1	LEAP EFF: 2018	99.00	82.00
WW0112	1	LEAP EFF: 2018	99.00	82.00
WW0113	1	LEAP EFF: 2018	99.00	82.00
WW0114	1	LEAP EFF: 2018	99.00	82.00
WW0115	1	LEAP EFF: 2018	99.00	82.00
WW0210	1	LEAP EFF: 2018	109.00	80.00
WW0211	1	LEAP EFF: 2018	111.00	82.00
WW0212	1	LEAP EFF: 2018	111.00	82.00
WW0213	1	LEAP EFF: 2018	111.00	82.00
WW0214	1	LEAP EFF: 2018	111.00	82.00
WW0215	1	LEAP EFF: 2018	111.00	82.00



WW0310	1	LEAP EFF: 2018	116.00	80.00
WW0311	1	LEAP EFF: 2018	118.00	82.00
WW0312	1	LEAP EFF: 2018	118.00	82.00
WW0313	1	LEAP EFF: 2018	118.00	82.00
WW0314	1	LEAP EFF: 2018	118.00	82.00
WW0315	1	LEAP EFF: 2018	118.00	82.00
WW0410	1	LEAP EFF: 2018	102.00	80.00
WW0411	1	LEAP EFF: 2018	104.00	82.00
WW0412	1	LEAP EFF: 2018	104.00	82.00
WW0413	1	LEAP EFF: 2018	104.00	82.00
WW0414	1	LEAP EFF: 2018	104.00	82.00
WW0415	1	LEAP EFF: 2018	104.00	82.00
WW0510	1	LEAP EFF: 2018	135.00	80.00
WW0511	1	LEAP EFF: 2018	138.00	82.00
WW0512	1	LEAP EFF: 2018	138.00	82.00
WW0513	1	LEAP EFF: 2018	138.00	82.00
WW0514	1	LEAP EFF: 2018	138.00	82.00
WW0515	1	LEAP EFF: 2018	138.00	82.00
WW0610	1	LEAP EFF: 2018	127.00	80.00
WW0611	1	LEAP EFF: 2018	130.00	82.00
WW0612	1	LEAP EFF: 2018	130.00	82.00
WW0613	1	LEAP EFF: 2018	130.00	82.00
WW0614	1	LEAP EFF: 2018	130.00	82.00
WW0615	1	LEAP EFF: 2018	130.00	82.00
WW0710	1	LEAP EFF: 2018	91.00	80.00
WW0711	1	LEAP EFF: 2018	93.00	82.00
WW0712	1	LEAP EFF: 2018	93.00	82.00
WW0713	1	LEAP EFF: 2018	93.00	82.00
WW0714	1	LEAP EFF: 2018	93.00	82.00
WW0715	1	LEAP EFF: 2018	93.00	82.00
WW0810	1	LEAP EFF: 2018	82.00	70.00
WW0811	1	LEAP EFF: 2018	84.00	71.00
WW0812	1	LEAP EFF: 2018	84.00	71.00
WW0813	1	LEAP EFF: 2018	84.00	71.00
WW0814	1	LEAP EFF: 2018	84.00	71.00
WW0815	1	LEAP EFF: 2018	82.00	70.00
WW0910	1	LEAP EFF: 2018	87.00	80.00
WW0911	1	LEAP EFF: 2018	89.00	82.00
WW0912	1	LEAP EFF: 2018	89.00	82.00
WW0913	1	LEAP EFF: 2018	89.00	82.00
WW0914	1	LEAP EFF: 2018	89.00	82.00
WW0915	1	LEAP EFF: 2018	89.00	82.00
WW1010	1	LEAP EFF: 2018	73.00	70.00
WW1011	1	LEAP EFF: 2018	74.00	71.00
WW1012	1	LEAP EFF: 2018	74.00	71.00
WW1013	1	LEAP EFF: 2018	74.00	71.00
WW1014	1	LEAP EFF: 2018	74.00	71.00
WW1015	1	LEAP EFF: 2018	74.00	71.00



WW1110	1	LEAP EFF: 2018	97.00	80.00
WW1111	1	LEAP EFF: 2018	99.00	82.00
WW1112	1	LEAP EFF: 2018	99.00	82.00
WW1113	1	LEAP EFF: 2018	99.00	82.00
WW1114	1	LEAP EFF: 2018	99.00	82.00
WW1115	1	LEAP EFF: 2018	99.00	82.00
WW1210	1	LEAP EFF: 2018	116.00	80.00
WW1211	1	LEAP EFF: 2018	118.00	82.00
WW1212	1	LEAP EFF: 2018	118.00	82.00
WW1213	1	LEAP EFF: 2018	118.00	82.00
WW1214	1	LEAP EFF: 2018	118.00	82.00
WW1215	1	LEAP EFF: 2018	118.00	82.00
WW1310	1	LEAP EFF: 2018	116.00	80.00
WW1311	1	LEAP EFF: 2018	118.00	82.00
WW1312	1	LEAP EFF: 2018	118.00	82.00
WW1313	1	LEAP EFF: 2018	118.00	82.00
WW1314	1	LEAP EFF: 2018	118.00	82.00
WW1315	1	LEAP EFF: 2018	118.00	82.00
WW1410	1	LEAP EFF: 2018	109.00	80.00
WW1411	1	LEAP EFF: 2018	111.00	82.00
WW1412	1	LEAP EFF: 2018	111.00	82.00
WW1413	1	LEAP EFF: 2018	111.00	82.00
WW1414	1	LEAP EFF: 2018	111.00	82.00
WW1415	1	LEAP EFF: 2018	111.00	82.00
WW1510	1	LEAP EFF: 2018	119.00	80.00
WW1511	1	LEAP EFF: 2018	121.00	82.00
WW1512	1	LEAP EFF: 2018	121.00	82.00
WW1513	1	LEAP EFF: 2018	121.00	82.00
WW1514	1	LEAP EFF: 2018	121.00	82.00
WW1515	1	LEAP EFF: 2018	121.00	82.00
WW1601	1	LEAP EFF: 2018	121.00	82.00
WW1602	1	LEAP EFF: 2018	121.00	82.00
WW0116	1	LEAP EFF: 2019	99.00	82.00
WW0216	1	LEAP EFF: 2019	111.00	82.00
WW0316	1	LEAP EFF: 2019	118.00	82.00
WW0416	1	LEAP EFF: 2019	104.00	82.00
WW0516	1	LEAP EFF: 2019	138.00	82.00
WW0616	1	LEAP EFF: 2019	130.00	82.00
WW0716	1	LEAP EFF: 2019	93.00	82.00
WW0816	1	LEAP EFF: 2019	84.00	71.00
WW0916	1	LEAP EFF: 2019	89.00	82.00
WW1016	1	LEAP EFF: 2019	74.00	71.00
WW1116	1	LEAP EFF: 2019	99.00	82.00
WW1216	1	LEAP EFF: 2019	118.00	82.00
WW1316	1	LEAP EFF: 2019	118.00	82.00
WW1416	1	LEAP EFF: 2019	111.00	82.00
WW1516	1	LEAP EFF: 2019	121.00	82.00
EMY36	1	LEAP EMY: 2018	897.00	897.00



EMY37	1	LEAP EMY: 2018	897.00	897.00
HS0106	1	LEAP High Salinity: 2018	224.00	105.00
HS0107	1	LEAP High Salinity: 2018	224.00	105.00
HS0206	1	LEAP High Salinity: 2018	224.00	105.00
HS0207	1	LEAP High Salinity: 2018	224.00	105.00
HS0306	1	LEAP High Salinity: 2018	266.00	154.00
HS0307	1	LEAP High Salinity: 2018	266.00	154.00
HS0406	1	LEAP High Salinity: 2018	224.00	105.00
HS0407	1	LEAP High Salinity: 2018	224.00	105.00
HS0506	1	LEAP High Salinity: 2018	224.00	105.00
HS0507	1	LEAP High Salinity: 2018	224.00	105.00
LG0105	1	LEAP LEGION: 2018	175.00	70.00
LG0106	1	LEAP LEGION: 2018	175.00	70.00
DWM0120	1	LEAP MICRO: 2018	100.00	40.00
DWM0121	1	LEAP MICRO: 2018	100.00	40.00
DWM0122	1	LEAP MICRO: 2018	100.00	40.00
DWM0123	1	LEAP MICRO: 2018	100.00	40.00
DWM0124	1	LEAP MICRO: 2018	100.00	40.00
DWM0125	1	LEAP MICRO: 2018	100.00	40.00
DWM0126	1	LEAP MICRO: 2018	100.00	40.00
DWM0127	1	LEAP MICRO: 2018	100.00	40.00
DWM0128	1	LEAP MICRO: 2018	100.00	40.00
DWM0129	1	LEAP MICRO: 2018	100.00	40.00
DWM0220	1	LEAP MICRO: 2018	100.00	40.00
DWM0221	1	LEAP MICRO: 2018	100.00	40.00
DWM0222	1	LEAP MICRO: 2018	100.00	40.00
DWM0223	1	LEAP MICRO: 2018	100.00	40.00
DWM0224	1	LEAP MICRO: 2018	100.00	40.00
DWM0225	1	LEAP MICRO: 2018	100.00	40.00
DWM0226	1	LEAP MICRO: 2018	100.00	40.00
DWM0227	1	LEAP MICRO: 2018	100.00	40.00
DWM0228	1	LEAP MICRO: 2018	100.00	40.00
DWM0229	1	LEAP MICRO: 2018	100.00	40.00
DWM0320	1	LEAP MICRO: 2018	100.00	40.00
DWM0321	1	LEAP MICRO: 2018	100.00	40.00
DWM0322	1	LEAP MICRO: 2018	100.00	40.00
DWM0323	1	LEAP MICRO: 2018	100.00	40.00
DWM0324	1	LEAP MICRO: 2018	100.00	40.00
DWM0325	1	LEAP MICRO: 2018	100.00	40.00
DWM0326	1	LEAP MICRO: 2018	100.00	40.00
DWM0327	1	LEAP MICRO: 2018	100.00	40.00
DWM0328	1	LEAP MICRO: 2018	100.00	40.00
DWM0329	1	LEAP MICRO: 2018	100.00	40.00
DWM0407	1	LEAP MICRO: 2018	100.00	40.00
DWM0408	1	LEAP MICRO: 2018	100.00	40.00
DWM0409	1	LEAP MICRO: 2018	100.00	40.00
DWM0410	1	LEAP MICRO: 2018	100.00	40.00
DWM0130	1	LEAP MICRO: 2019	100.00	40.00



DWM0131	1	LEAP MICRO: 2019	100.00	40.00
DWM0230	1	LEAP MICRO: 2019	100.00	40.00
DWM0231	1	LEAP MICRO: 2019	100.00	40.00
DWM0330	1	LEAP MICRO: 2019	100.00	40.00
DWM0331	1	LEAP MICRO: 2019	100.00	40.00
DWM0411	1	LEAP MICRO: 2019	100.00	40.00
DWP0111	1	LEAP PARA: 2018	161.00	80.00
DWP0112	1	LEAP PARA: 2018	161.00	80.00
DWP0113	1	LEAP PARA: 2018	161.00	80.00
DWP0114	1	LEAP PARA: 2018	161.00	80.00
DWP0115	1	LEAP PARA: 2018	161.00	80.00
DWP0116	1	LEAP PARA: 2018	161.00	80.00
DWP0211	1	LEAP PARA: 2018	161.00	80.00
DWP0212	1	LEAP PARA: 2018	161.00	80.00
DWP0213	1	LEAP PARA: 2018	161.00	80.00
DWP0214	1	LEAP PARA: 2018	161.00	80.00
DWP0215	1	LEAP PARA: 2018	161.00	80.00
DWP0216	1	LEAP PARA: 2018	161.00	80.00
DWP0117	1	LEAP PARA: 2019	161.00	80.00
DWP0118	1	LEAP PARA: 2019	161.00	80.00
DWP0217	1	LEAP PARA: 2019	161.00	80.00
DWP0218	1	LEAP PARA: 2019	161.00	80.00
SL0105	1	LEAP SOIL: 2018	220.00	160.00
SW0105	1	LEAP SURFACE: 2018	123.00	60.00
SW0106	1	LEAP SURFACE: 2018	123.00	60.00
SW0205	1	LEAP SURFACE: 2018	123.00	60.00
SW0206	1	LEAP SURFACE: 2018	123.00	60.00
SW0305	1	LEAP SURFACE: 2018	238.00	60.00
SW0306	1	LEAP SURFACE: 2018	238.00	60.00
SW0405	1	LEAP SURFACE: 2018	270.00	60.00
SW0406	1	LEAP SURFACE: 2018	270.00	60.00
SW0107	1	LEAP SURFACE: 2019	123.00	60.00
SW0207	1	LEAP SURFACE: 2019	123.00	60.00
SW0307	1	LEAP SURFACE: 2019	238.00	60.00
SW0407	1	LEAP SURFACE: 2019	270.00	60.00
TOCHEM07	1	LEAP TOCHEM 2018	698.00	698.00



Technical Information

Protocols

- Protocol part 1: Generic
[\[English\]](#) [\[Espanol\]](#)
- Protocol part 5: Fapas® Water & Environmental
[\[English\]](#) [\[Espanol\]](#)

Other technical documents

- [Example Report](#)
- On line results submission instructions [\[English\]](#) [\[Espanol\]](#)
- [Terms & Conditions](#)

ISO Accreditation

The Fapas® proficiency testing schemes are accredited by UKAS, Proficiency Testing Provider No. 0009.



- [UKAS Accreditation Certificate](#)
- [UKAS Schedule of Accreditation](#)

This accreditation confirms that we comply with the requirements of International Standard ISO/IEC 17043:2010.

In addition, Fera is accredited by other external bodies to other internationally recognised certification including ISO 9001:2008.

- [Fera's Quality Documentation](#)

Fapas® (and other proficiency testing schemes) does not award accreditation. That is the responsibility of national accreditation bodies. A list of national and international accreditation bodies can be found at www.fasor.com/iso25. Results of proficiency testing are used by laboratory accreditation bodies as part of the process to assess the ability of laboratories to perform analytical tests for which accreditation is required.

