ACS ENVIRONMENTAL TESTING PROCEDURE N0. AE70

Accredited Waters Determinand	Method Ref	Container	Preservation	Maximum Holding Time	Reference	Other Comments
Anions (Cl, F, SO_4)	AE-14	Plastic or glass.	Cool 1-5°C	28 days	EN ISO 5667-3:2012	Container not PTFE if F to be determined.
Anions(PO_4)	AE-14	Polyethylene, PVC or glass. Glass preferred.	Acidify to pH 1-2 with HNO_3.	28 days	EN ISO 5667-3:2012	
Anions (NO_3)	AE-14	Plastic or glass.	Acidify to pH 1-2 with HCl.	7 days.	EN ISO 5667-3:2012	
Anions (NO_2)	AE-14	Plastic or glass.	Cool 1-5°C	24 hours	EN ISO 5667-3:2012	Ideally analyse on site.
Electrical Conductivity	AE-07	Plastic or Borosilicate glass.	Cool 1-5°C	24 hours	EN ISO 5667-3:2012	Fill container completely to exclude air. Ideally analyse on site.
pH	AE-06	Plastic or glass.	Cool 1-5°C	6 hours	EN ISO 5667-3:2012	Fill container completely to exclude air. Ideally analyse on site.
Metals by ICP	AE-06	Plastic.	Acidify to pH 1-2 with HNO_3.	28 days	EN ISO 5667-3:2012	Acidify with HCl for hydride methods.
Total Dissolved Solids	AE-08	Plastic or glass.	Cool 1-5°C	7 days.	EN ISO 5667-3:2012	
Phenols	AE-04	Borosilicate glass (amber) PTFE liner. Solvent washed.	Acidify to <pH4 with H_2SO_4	21 days.	EN ISO 5667-3:2012	Leave headspace in container.
Mercury by Cold Vapour	AE-51	Borosilicate glass. Acid washed.	Acidify to pH 1-2 with HNO_3.	28 days	EN ISO 5667-3:2012	

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Accredited Waters Determinand	Method Ref	Container	Preservation	Maximum Holding Time	Reference	Other Comments
Ammonium	AE-28	Plastic or glass.	Water to be filtered on site. Acidify to pH 1-2 with H_2SO_4 Cool 1-5°C	21 Days	EN ISO 5667-3:2012	
BOD	AE-27	Plastic or glass	Cool 1-5°C Freeze -20°C	24 hours 6 months	EN ISO 5667-3:2012	Keep samples in dark.
COD	AE-26	Plastic or glass	Acidify to pH 1-2 with H_2SO_4	6 months.	EN ISO 5667-3:2012	
Suspended Solids	AE-26	Plastic or glass	Cool 1-5°C	2 days	EN ISO 5667-3:2012	
TOC	AE-29	Glass	Acidify to pH 1-2 with H_2SO_4 Cool 1-5°C	7 days	EN ISO 5667-3:2012	Extended to 1 month if sample frozen below -18°C

Accredited Soils and Granular Waste Determinand	Method Ref	Container	Preservation	Maximum Holding Time	Reference	Other Comments
pH	BS 1377:3:1990	Glass or Plastic	Cool <4 °C	7 days	ISO 18512:2007	For wet soil. Dried soil may be kept 6 months at <4°C
Total Extractable Metals (ICP)	AE-16	Glass or Plastic	Cool <4°C	6 months	ISO 18512:2007	
TPH	AE-13	Glass	Cool <4°C	1 week	ISO 18512:2007	Extended to 1 month if sample dried by adding sodium sulphate.

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Accredited Soils and Granular Waste Determinand	Method Ref	Container	Preservation	Maximum Holding Time	Reference	Other Comments
BTEX	AE-03	Glass. Fill container to minimum headspace.	Cool <4°C	4 days	ISO 18512:2007	
Phenols	AE-23	Glass or Plastic	Cool <4°C	4 days	ISO 18512:2007	
PAH	AE-32	Glass	Cool <4°C	2 weeks	ISO 18512:2007	
Loss on Ignition	BS 1377:3:1990	Glass or Plastic	None	28 days	ISO 18512:2007	
WAC Leachate Preparation	AE-01	Glass or Plastic	Cool <4°C	28 days	ISO 18512:2007	
TOC	AE-34	Glass	Cool <4°C	28 days	ISO 18512:2007	
Acid Soluble Sulphate	AE-40	Glass or Plastic	None	28 days	ISO 18512:2007	
PCBs	AE-43	Glass	None	1 year	ISO 18512:2007	
Mercury (cold vapour)	AE-51	Glass or Plastic	Cool <4°C	28 days	ISO 18512:2007	