APPENDIX A: SAMPLE PRESERVATION GUIDE

INORGANICS

Water & Wastewater					Soil & Sludge	
Analysis	**Container**	**Volume**	**Preservation**	**Holding Time**	**Container**	**Holding Time**
Acidity	HDPE	100 ml	Cool, 4°C	24 Hours	Soil Jar	N/A
Alkalinity	HDPE	100 ml	Cool, 4°C	24 Hours	Soil Jar	N/A
Ammonia	HDPE	100 ml	Cool, 4°C H_2SO_4 pH <2	7 Days	Soil Jar	7 Days
BOD	HDPE	1000 ml	Cool, 4°C	24 Hours	--	--
Chloride	HDPE	100 ml	Cool, 4°C	28 Days	Soil Jar	7 Days
Chlorine	HDPE	100 ml	None	Analyse Immediately	--	--
Chlorophyll	Amber Glass	1000 ml	Cool, 4°C, Dark	30 days	--	--
COD	Glass	100 ml	Cool, 4°C H_2SO_4 pH <2	7 Days	--	--
Colour	HDPE	100 ml	Cool, 4°C	48 Hours	--	--
Conductivity	HDPE	100 ml	Cool, 4°C	28 Days	Soil Jar	7 Days
Cyanide - Free, Total, WAD	HDPE	250 ml	Cool, 4°C NaOH pH > 12	24 Hours	Soil Jar	7 Days
Fluoride	HDPE	100 ml	Cool, 4°C	28 days	Soil Jar	7 Days
Nitrate	HDPE	50 ml	Cool, 4°C	48 Hours	Soil Jar	48 Hours
Nitrite	HDPE	50 ml	Cool, 4°C	48 Hours	Soil Jar	48 Hours
Kjeldahl Nitrogen	HDPE	250 ml	Cool, 4°C H_2SO_4 pH <2	7 Days	Soil Jar	28 Days
Orthophosphate	HDPE	100 ml	Filter on site Cool, 4°C	48 Hours	Soil Jar	48 Hours
pH	HDPE	50 ml	Cool, 4°C	Analyse Immediately	Soil Jar	7 Days
Phosphorus - Total	HDPE	100 ml	Cool, 4°C H_2SO_4 pH <2	28 Days	Soil Jar	28 Days
Solids - Total	HDPE	500 ml	Cool, 4°C	7 Days	--	--
Solids - Volatile	HDPE	500 ml	Cool, 4°C	7 Days	--	--
Sulphate	HDPE	200 ml	Cool, 4°C	28 Days	Soil Jar	7 Days
Sulphide	HDPE	500 ml	Cool, 4°C Zinc Acetate + NaOH pH > 9	7 Days	Soil Jar	7 Days
Sulphite	HDPE	200 ml	None	Analyse Immediately	--	--
Surfactants - MBAS	HDPE	250 ml	Cool, 4°C	48 Hours	--	--
TOC	HDPE	100 ml	Cool, 4°C HCl pH <2	7 Days	Soil Jar	7 Days
Total Dissolved Solids	HDPE	500 ml	Cool, 4°C	7 Days	--	--
Turbidity	HDPE	200 ml	Cool, 4°C	24 Hours	--	--

ORGANICS

Water & Wastewater					Soil & Sludge	
Analysis	**Container**	**Volume**	**Preservation**	**Holding Time**	**Container**	**Holding Time**
Chlorinated SVOCs	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
Grease & Oil	Glass	500ml	Cool, 4°C H_2SO_4 pH <2	28 days	Soil Jar	28 days
OCP/PCB	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
OPP	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
PAHs	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
Phenolics - Speciated	Glass	1000ml	Cool, 4°C	7 Days	Soil Jar	14 Days
Phenolics - Total	Glass	200 ml	Cool, 4°C H_2SO_4 pH <2	28 Days	Soil Jar	14 Days
SVOCs	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
Total Recoverable Hydrocarbons	Glass	1000 ml	Cool, 4°C	7 Days	Soil Jar	14 Days
Volatile Organic Compounds / BTEX	Glass - Teflon Lined Septum	2 x 40 ml	Cool, 4°C HCl pH < 2	7 Days	Soil Jar	14 Days

METALS

Water & Wastewater					Soil & Sludge	
Analysis	**Container**	**Volume**	**Preservation**	**Holding Time**	**Container**	**Holding Time**
Boron	HDPE	250 ml	None	28 Days	--	--
Chromium VI	HDPE	100 ml	Cool, 4°C	24 Hours	Soil Jar	7 Days
Metals	HDPE	250 ml	Cool, 4°C Filter* HNO_3 pH < 2	6 Months	Soil Jar	6 Months
Mercury	HDPE	100 ml	Cool, 4°C HNO_3 pH < 2	28 Days	Soil Jar	28 Days

HDPE: High Density Polyethylene

Soil Jar: A 50ml glass jar with a Teflon lined plastic lid.

* For dissolved metals samples should be filtered through a 0.45µm on site prior to preservation.

X-Lab Earth Science is not responsible for the accuracy of the information contained in this table. Users are encouraged to refer to the sources from which this information is obtained. The hold time listed the suggested time that samples may be held before analysis and still be considered valid. International references e.g., Standard Methods for the Examination of Water and Wastewater, 21st Edition & USEPA SW 846, 3rd Edition plus updates provide alternative recommended holding times that may be considered valid.