

Environmental Chemistry Laboratory (ECL) - QUICK REFERENCE GUIDE (QRG)

Sample Size, Containers, Preservation, and Holding Times for Regulated Analytes

Analytes	Matrix	Volume/Mass per Sample w/QC	Container	Preservation	Holding Time
Metal Scan	Solid	10 g	G jar or brass sleeve	NONE	6 months
	Liquid	500 mL	G or P Bottle	NONE; (Trace analysis: HNO ₃ to pH<2)	6 months
Mercury (Hg)	Solid	10 g	G jar or brass sleeve	Cool, 0-6°C	28 days
	Liquid	500 mL	G or P Bottle	Cool, 0-6°C; (trace analysis: HNO ₃ to pH<2)	28 days
Chromium (VI)	Solid	50 g	G jar or brass sleeve	Cool, 0-6°C	30 days
	Liquid	500 mL	G or P Bottle	Cool, 0-6°C	24 hours
CA-W.E.T. (California Waste Extraction Test)	Solid	150 g	P jar for inorganic tests, G jar if organics included	Cool, 0-6°C, if requesting CA-WET Mercury; NONE if Metals only	6 months
	Liquid	250 mL (Additional sample will be required for trace organic tests, confirm with SMOFF)	P jar for inorganic tests, G jar if organics included	Cool, 0-6°C, if requesting CA-WET Mercury; NONE if Metals only	6 months
T.C.L.P. (Toxicity Characteristic Leaching Procedure)	Solid	250 g	P jar for inorganic tests, G jar if organics included	Cool, 0-6°C, if requesting TCLP Mercury; NONE if Metals only	Same hold time or extraction hold time as analysis to be run
	Liquid	250 mL (Additional sample will be required for trace organic tests, confirm with SMOFF)	P jar for inorganic tests, G jar if organics included	Cool, 0-6°C, if requesting TCLP Mercury; NONE if Metals only	Same hold time or extraction hold time as analysis to be run
pH	Solid	50 g	G or P Jar or brass sleeve	NONE	As soon as possible
	Liquid	80 mL	G or P Bottle	NONE	As soon as possible
Flash Point	Liquid	20 mL	40 mL VOA Vial or G jar	Cool, 0- 6°C	Not specified
Fish Bioassay LC ₅₀ / 96 hrs. (Acute Test)	Solid	200 g	Amber glass jar if toxic is organic, P or amber G jar if toxic are metals; minimal water layer	Cool, 0- 6°C	Not specified, but to be kept to a minimum
	Aqueous	2 L	P or Amber G container if toxic are metals, Amber G containers if toxic is organic	Cool, 0- 6°C	Not specified but to be kept to a minimum
	Concentrated Waste	250 mL	P or Amber G container if toxic are metals, Amber G containers if toxic is organic	Cool, 0- 6°C	Not specified but to be kept to a minimum
Organochlorine Pesticides (OCL)	Solid	90 g	Amber G jar or brass sleeve	Cool, 0- 6°C	14 days to extract; 40 days to analyze
	Aqueous	3 L	Amber G bottle	Cool, 0- 6°C	7 days to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	40 mL Amber VOA Vial or Amber G bottle	Cool, 0- 6°C	14 days to extract; 40 days to analyze

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Organophosphorous Pesticides (OPH)	Solid	90 g	G jar or brass sleeve	Cool, 0- 6°C	14 days to extract; 40 days to analyze
	Aqueous	3 L	G bottle	Cool, 0- 6°C	7 days to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	G jar or 40 mL VOA Vials	Cool, 0- 6°C	14 days to extract; 40 days to analyze
PCBs (Polychlorinated Biphenyls)	Solid	90 g	G jar or brass sleeve	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
	Aqueous	3 L	G bottle	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	G jar or 40 mL VOA Vial	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
GRO* (Gasoline Range Organics)	Solid	40 g (When possible, weigh 5 grams into each vial)	40 mL VOA Vials; Encore Sampler Containers (3 per sample minimum)	Cool, 0- 6°C	48 hours to preserve in lab with methanol, sodium bisulfate, or freezing; 14 days to analyze after preservation
	Aqueous	7 x 40 mL	40 mL VOA Vials	Cool, 0- 6°C	7 days to extract; 40 days to analyze
	Concentrated Waste	40 mL	40 mL VOA Vial	Cool, 0- 6°C	14 days to extract; 40 days to analyze
DRO and/or MORO (Diesel Range Organics) / (Motor Oil Range Organics)	Solid	90 g	G jar or brass sleeve	Cool, 0- 6°C	14 days to extract; 40 days to analyze
	Aqueous	3 L	G bottle	Cool, 0- 6°C	7 days to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	G jar or 40 mL VOA Vial	Cool, 0- 6°C	14 days to extract; 40 days to analyze
VOCs* (Volatile Organic Compounds)	Solid	40 g (When possible, weigh 5 grams into each vial)	40 mL Amber VOA Vials; Encore Sampler Containers (3 per sample minimum)	Cool, 0- 6°C	48 hours to preserve in lab with methanol, sodium bisulfate, or freezing; 14 days to analyze after preservation
	Aqueous	7 x 40 mL	40 mL Amber VOA Vials	Cool, 0- 6°C	7 days
	Concentrated Waste	40 mL	40 mL Amber VOA Vial	Cool, 0- 6°C	14 days
SVOCs / PAHs (Semi-volatile Organics / Polyaromatic Hydrocarbons)	Solid	50 g	Amber G jar or brass sleeve	Cool, 0- 6°C	14 days to extract; 40 days to analyze
	Aqueous	2 L	Amber G bottle	Cool, 0- 6°C	7 days to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	40 mL Amber VOA Vial or Amber G bottle	Cool, 0- 6°C	14 days to extract; 40 days to analyze
Dioxins / Furans (PCDD / PCDF)	Solid	90 g	G jar or brass sleeve	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
	Aqueous	3 L	G bottle	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
	Concentrated Waste	40-100 mL	G bottle	Cool, 0- 6°C	1 yr to extract; 40 days to analyze
Total Organic Halides	Aqueous	500 mL	G bottle	Cool, 0- 6°C	28 days
	Oils	4 x 40 mL	40 mL Amber VOA Vials	Cool, 0- 6°C	28 days
Concentrated Waste samples may be non-aqueous, solvents, oils, or any waste in which the analyte(s) of interest are suspected or			* - Fully filled with Zero head space	If quality control (QC) samples are not required, smaller sample amounts for solids	
P = Polyethylene G = Borosilica Glass VOA= Volatile Organic Analysis					
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