

SAMPLE CONTAINER TYPES, PRESERVATION, HOLDING TIME AND METHOD REFERENCES

INORGANICS

<i>Parameter</i>	<i>Container</i>	<i>Min. Sample Volume</i>	<i>Recommended Preservative</i>	<i>Holding Time</i>	<i>Matrix</i>	<i>EPA</i>	<i>Method Reference SM 20th Ed.</i>	<i>ASTM</i>
Acidity	P	100ml	4 degrees C	14 days	Water		2310B(4a)	
Alkalinity	P	250ml	4 degrees C	14 days	Water	310.2	2320B	
Anions	P	50ml	None	28 days	Water	300.0 R2.1		
Anions	G	4OZ	None	28 days	Soil		9056A	
BOD-5 day	P	500ml	4 degrees C	48 hours	Water		5210B	
Bromide	P	50ml	None	28 days	Water	300.0 R2.1		
Chloride	P	250ml	None	28 days	Water	300.0 R2.1		
Chlorine, Demand	P	100ml	None	Immediately	Water		4500-CI G	
Chlorine, Total	P	100ml	None	Immediately	Water		4500-CI G	
Chlorine, Residual	P	100ml	None	Immediately	Water		4500-CI G	
Chromium, Hexavalent	P	100ml	4 degrees C	24 hours	Water		3500-Cr C	
Chromium, Hexavalent	G	4 OZ	4 degrees C	30 days/24 hrs	Soil	3060A/7196A		
Chemical Oxygen Demand	P	50ml	H2SO4 pH<2	28 days	Water	410.4 R2.0	5220D	
Color	P	50ml	4 degrees C	48 hours	Water		2120B	
Conductivity	P	50ml	4 degrees C	28 days	Water	120.1 R1982	2510B	
Cyanide, Amenable	P	250ml	NaOH pH>12	14 days	Water		4500-CN G	
Cyanide, Available, Free	P	60ml	NaOH pH>12 Lead Carbonate	14 days	Water			OIA-1677 D6888-4
Cyanide, Total	P	60ml	NaOH pH>13	14 days	Water	335.4 R1.0	4500-CN E	
Cyanide, Total	G	4 OZ	4 degrees C	14 days	Soil	335.4 R1.0		
Cyanide, Weak Acid Diss	P	60ml	NaOH pH>14	14days	Water	9012B	4500-CN I	
Flouride	P	150ml	None	28 days	Water	300.0 R2.1	4500-R B	
Halogens, TOX	G	250ml	H2SO4 pH<2	28 days	Water	9020B		
Halogens, TOX	G	4 OZ	4 degrees C	28 days	Soil	9023		
Hardness, Total	P	100ml	HNO3 pH<2	6 months	Water	200.7 R4.4		

INORGANICS continued

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Nitrogen								
Ammonia	P	100ml	H2SO4 pH<2	28 days	Water	350.1 R2.0	4500-NH3 G	
Ammonia	G	4 OZ	4 degrees C	28 days	Soil	350.1 R2.0		
Kjeldahl	P	100ml	H2SO4 pH<2	28 days	Water	351.2 R2.0		
Kjeldahl	G	4 OZ	4 degrees C	28 days	Soil	351.2 R2.0		
Nitrate	P	100ml	4 degrees C	48 hours	Water	300.0 R2.1	4500-NO3- E	
Nitrate	G	4 OZ	4 degrees C	28 days/48 hrs	Soil	353.2		
Nitrite	P	100ml	4 degrees C	48 hours	Water	300.0 R2.1	4500-NO3- F	
Nitrite	G	4 OZ	4 degrees C	28 days/48 hrs	Soil	353.2		
Organic	P	100ml	H2SO4 pH<2	28 days	Water	350.1 R2.0	4500-NH3 G	
Oil & Grease EPA 1664	G	1L	HCL pH<2	28 days	Water	1664A		
Oxygen, Dissolved	G	300ml	None	Immediately	Water		4500-O G	
pH	P	50ml	None	Immediately	Water		4500-H+ B	
Phenol	G	150ml	H2SO4 pH<2	28 days	Water	420.1 R1978		
Phosphate, Ortho	P	50ml	None	48 hours	Water	365.1 R2.0	4500-P E	
Phosphate, Total	P	100ml	H2SO4 pH<2	28 days	Water	365.4 R1974		
Phosphorus	P	100ml	H2SO4 pH<2	28 days	Water	365.4 R1974		
Solids								
Dissolved (TDS)	P	250ml	4 degrees C	7 days	Water		2540C	
Settleable (SS)	P	1L	4 degrees C	48 hours	Water		2540F	
Suspended (TSS)	P	250ml	4 degrees C	7 days	Water		2540D	
Suspended Volatile	P	100ml	4 degrees C	7 days	Water	160.4	2540E	
Total (TS)	P	100ml	4 degrees C	7 days	Water		2540B	
Total Volatile (TVS)	P	100ml	4 degrees C	7 days	Water		2540E	
Sulfate	P	50ml	4 degrees C	28 days	Water	300.0 R2.1		
Sulfide	P	100ml	ZnAc+NaOH pH>1	7 days	Water		4500-S2- F	
Sulfite	P	100ml	None	Immediately	Water		4500-SO32- B	
Total Organic Carbon	G	50ml	H2SO4 pH<2	28 days	Water		5310B	
Total Organic Carbon	G	4 OZ	4 degrees C	28 days	Soil	9060A		
Turbidity	P	100ml	4 degrees C	48 hours	Water	180.1 R2.0	2130B	

METALS

<i>Parameter</i>	<i>Container</i>	<i>Min. Sample</i>	<i>Recommended</i>	<i>Holding</i>	<i>Matrix</i>	<i>Method Reference</i>		<i>ASTM</i>
		<i>Volume</i>	<i>Preservative</i>	<i>Time</i>		<i>EPA</i>	<i>SM 20th Ed.</i>	
All Metals (except Hg)	P	100ml	HNO3 pH<2	6 months	Water	200.7 R4.4 or 200.8 R5.4		
All Metals (except Hg)	G	4 OZ	None	6 months	Soil	6010C		
Mercury	P	100ml	HNO3 pH<2	28 days	Water	245.2 R1974		
Mercury	G	4 OZ	4 degrees C	28 days	Soil	7471B		
TCLP/SPLP Metals	G	8 OZ	None	6 months	Waste	1311 or 1312/6010C		
TCLP/SPLP Mercury	G	8 OZ	4 degrees C	28 days	Waste	1311 or 1312/7470A		

ORGANICS

Volatiles	G	3-40ml VOA Vials	HCL pH<2	14 days	Water	624 or 8260B		
Volatiles-EPA 8021,8260	G	4 OZ	4 degrees C	14 days	Soil	24, 8260B or 8021		
Volatiles - EPA 5035	G	5035 Kit*	4 degrees C	14 days	Soil **	8260B		
Volatiles - EPA 5035	P	Encore	4 degrees C	48 hrs/14 days	Soil **	8260B		
Semivolatiles-EPA 625,8270	G	1L	4 degrees C	7 days/40 days	Water	625 OR 8270D		
Semivolatiles-EPA 8270	G	4 OZ	4 degrees C	7 days/40 days	Soil	8270D		
PAH	G	1L	4 degrees C	14 days/40 days	Water	8270D		
PAH	G	4 OZ	4 degrees C	14 days/40 days	Soil	8270D		
Pesticides- EPA 608,8081	G	1L	4 degrees C	7 days/40 days	Water	608 or 8081B		
Pesticides- EPA 8081	G	4 OZ	4 degrees C	7 days/40 days	Soil	8081B		
PCBs	G	1L	4 degrees C	7 days/40 days	Water	608 or 8082A		
PCBs	G	4 OZ	4 degrees C	7 days/40 days	Soil	8082A		
Herbicides	G	1L	4 degrees C	7 days/40 days	Water	615 or 8151A		
Herbicides	G	4 OZ	4 degrees C	7 days/40 days	Soil	8151A		

** WA State requires use of EPA 5035 Sampling and Preservation.

* 5035 Sample kit includes - 1- pretared 40 mL VOA with 5 mL of Sodium Bisulfate, 2- pretared 40 mL VOAs with 5 mL of Methanol and 1 - 2 OZ jar for moisture content determination.

Organics - GC Fuels

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NWTPH-HCID	G	1L	4 degrees C	7 days/28 days	Water *			
NWTPH-HCID	G	4 OZ	4 degrees C	14 days/28 days	Soil			
NWTPH-Dx	G	1L	4 degrees C	7 days/28 days	Water *			
NWTPH-Dx	G	4 OZ	4 degrees C	14 days/28 days	Soil			
NWTPH-Gx	G	3-40ml VOA Vials	HCL pH<2	14 days	Water			
NWTPH-Gx/BTEX	G	3-40ml VOA Vials	HCL pH<2	14 days	Water			
NWTPH-Gx	G	5035 Kit**	4 degrees C	14 days	Soil ***			
NWTPH-Gx/BTEX	G	5035 Kit**	4 degrees C	14 days	Soil ***			
Glycols	G	1- 40 mL VOA Vial	None	14 days	Water	8015C		

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* The holding time can be extended to 14 days by preserving with HCL pH<2.

MICROBIOLOGICAL ANALYSIS

Coliform, Fecal (MF)	Sterile	100ml	4 degrees C	6 hours	Water	9221D
			0.0008% Na ₂ S ₂ O ₃		Water	
Coliform, Total (MF)	Sterile	100ml	4 degrees C	6 hours	Water	9221B

KEY TO ABBREVIATIONS

P = Polyethylene

G = Glass

HNO₃ = Nitric Acid

H₂SO₄ = Sulfuric Acid

NaOH = Sodium Hydroxide

Na₂S₂O₃ = Sodium Thiosulfate

ZnAC = Zinc Acetate

HCL = Hydrochloric Acid