

# SAMPLE HANDLING GUIDE

## *Inorganic & Conventional Parameters*

Parameter	Method	Sample Container	Quantity (mL)	Preservative	Holding Time (days)
Acidity	SM 2310 B	P,B	100	4°C	14
Alkalinity	SM 2320 B	P,G	100	4°C	14
Ammonia, NH <sub>3</sub> -N	SM 4500 NH <sub>3</sub> -B,F	P,G	500	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Anions, Chlorate	EPA 300.0	P,G	500	None	*
BOD - Biochemical Oxygen Demand	SM 5210B	P,G	1000	4°C	2
Bromate	EPA 300.0	P,G	500	None	28
Bromide	EPA 300.0	P,G	500	None	28
COD - Chemical Oxygen Demand	Hach 8000	P,G	100	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Chlorite	EPA 300.0	P,G	200	4°C	ASAP
Chlorine, Residual	SM 4500 Cl-G	P,G	200	4°C	15 minutes
Chromium, Hexavalent	SM 3500 Cr-D	P,G	300	4°C	5 (DW); 28 (WW) WW-6hrs, DW-30hrs
Coliform, Total & Fecal	MMO-MUG 9223 SM 9222B,9222D	P,G (sterile)	100	4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1 if Sulfide Present
Color	EPA 110.2	P,G	100	4°C	2
Cyanide	SM 4500CN	P,G	1000	4°C, NaOH to pH>12	14
Density (Specific Gravity)	SM 2710F	P,G	500	None	Not specified
DO – Dissolved Oxygen	EPA 360.1	G	500	4°C	15 minutes
Flashpoint	SW-846 1010	G	200	None	Not specified
Ferrous Iron	Titration	P,G	200	None	2
Fluoride	EPA 340.2/300.0	P	50	4°C	28
Hardness	EPA 130.2/200.7	P,G	200	HNO <sub>3</sub> to pH<2	180
Hexavalent Chromium	SM 3500 Cr-D	P,G	300	4°C	5 (DW); 28 (WW)
Ignitability	SW-846 1010	G	200	None	Not specified
Metals	200.7, 200.8 SW-846 6010B	P,G	500	HNO <sub>3</sub> to pH<2	180
Mercury	EPA 245.1 SW-846 7470A,7471A	P,G	500	HNO <sub>3</sub> to pH<2	28
Nitrogen, Kjeldahl (TKN)	EPA 351.4	P,G	500	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Nitrate+Nitrite	EPA 353.1	P,G	100	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Nitrite	EPA 354.1	P,G	200	4°C	2
Nitrate or Nitrite	EPA 300.0	P	200	4°C	2
Odor	SM 2150B	G	200	4°C	1
Oil & Grease	EPA 1664A	G	1000	4°C, HCl to pH<2	28
Paint Filter Test	SW-846 9095	P,G	100 g	4°C	Not Specified
Phenolics	EPA 420.1	G	1000	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Phosphorus, Total	SM 4500 PB5	P,G	300	4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28
Phosphorus, ortho	SM 4500 P-E	P,G	200	4°C	2
pH	EPA 150.1 SW-846 9040	P,G	100	4°C	15 minutes

## Inorganic & Conventional Parameters (cont.)

Parameter	Method	Sample Container	Quantity (mL)	Preservative	Holding Time (days)
Silica (calculated)	200.7 (See Metals)	P	500	HNO <sub>3</sub> to pH< 2	180
Solids, Settleable	SM 2540F	P,G	1000	4°C	2
Solids, Total Dissolved	SM 2540C	P,G	200	4°C	7
Solids, Total Suspended	SM 2540D	P,G	500	4°C	7
Solids, Total	SM 2540B	P,G	100	4°C	7
Solids, Volatile	SM 2540E	P,G	100	4°C	7
Std. Plate Count (HPC)	SM 9215B	P,G (sterile)	100	4°C, Na <sub>2</sub> SO <sub>3</sub>	30 hours
Specific Conductance	EPA 120.1 SW-846 9050	P,G	100	4°C	28
Sulfate	EPA 375.4/300.0	P,G	200	4°C	28
Sulfide	SM 4500S2-D	P,G	2 x 500	4°C, Zinc Acetate & NaOH to pH>9	7
Surfactants (MBAS)	EPA 425.1	P,G	300	4°C	2
TRH - Total Recoverable Hydrocarbons	SM 5520F EPA 1664	G G	1000 1000	4°C, HCl to pH<2 4°C, HCl to pH<2	28 28
TCLP	SW-846 1311	G-TLC	120-130 g	4°C	14 [for leaching]
TOC in Liquid	SM 5310C	G	3 x 40 Clear	H <sub>3</sub> PO <sub>4</sub> to pH < 2	28 days
Turbidity	EPA 180.1	P,G	100	4°C	2
UV 254	SM 5910B	G	100	4°C	48 hours

### Notations:

\*\*\*\* NO<sub>3</sub>, NO<sub>2</sub>, and o-PO<sub>4</sub> within 48 hours;  
F, Cl, SO<sub>4</sub>, and chlorate within 28 days

### Acronym Definitions:

P = Polyethylene  
G = Glass  
1000 mL = 1/2 gallon

G-TLS = Glass, Teflon-Lined Septum  
G-TLC = Glass, Teflon-Lined Cap  
500 mL = Quart

### Bottle Requirements for Groups:

<i>Hardness</i>	Metals Pint
<i>Langelier Index</i>	Metals Pint, Unpreserved Quart
<i>PSA (No Organics)</i>	Metals Pt, Unpres. 1/2g and Pt, Nutrient Pt, CN Qt, Unpres. Amber Glass
<i>PSA (Everything)</i>	Above List, plus 6 Pesticides, 2 Carbamates, 2 VOCs, 1 Radiological Cubitainer
<i>Inorganics &amp; Metals</i>	Metals Pint, Cyanide Quart, Unpreserved Quart

# SAMPLE HANDLING GUIDE

## Organic Parameters

Parameter	Method	Sample Container	Quantity (mL)	Preservative	Holding Time (days)
<b>BTEX or BTEXN</b>	8015 Mod/8260B	G-TLS	3 x 40	4°C*, HCl-pH<2	14
<b>Carbamates</b>	EPA 531.1	G-TLS	2x40 Amber	4°C, MCAA, Na <sub>2</sub> SO <sub>3</sub>	28
<b>EDB/DBCP</b>	EPA 504	G-TLS	2x40 Clear	4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	14
<b>Geosmin</b>	EPA 6040D	G-TLS	2x40 Amber	4°C	3
<b>Glycol Scan</b>	EPA 8015M	G-TLS	2 x 40	4°C	14
<b>HAAs</b>	EPA 552.2	G-TLS	3x40 Amber	4°C, NH <sub>4</sub> Cl	14
<b>Herbicides</b>	EPA 515.1	G-TLC	2000	4°C, Na <sub>2</sub> SO <sub>3</sub>	14/28
	SW 846 8150B	G-TLC	2000	4°C*	7/40
<b>Methanol</b>	EPA 8015M	G-TLC	2 x 40	4°C	14
<b>Pesticides &amp; PCBs</b>	EPA 508.1	G-TLC	2000	4°C, Na <sub>2</sub> SO <sub>3</sub>	14/30
	SW 846 8081B	G-TLC	3000	4°C*	7/40
	EPA 608	G-TLC	2000	4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	7/40
<b>PNAs (PAHs)</b>	EPA 8270C	G-TLC	3000	4°C	7/40
<b>Purgeable Aromatics</b>	8020 by 8260B	G-TLS	3 x 40	4°C*, HCl-pH<2	14
<b>Purgeable Halocarbons</b>	8010 by 8260B	G-TLS	3 x 40	4°C*, HCl-pH<2	14
<b>Semivolatile Organics (SVOCs)</b>	EPA 525.2	G-TLC	2000	4°C, Na <sub>2</sub> SO <sub>3</sub>	14/30
	SW 846 8270C	G-TLC	3000	4°C	7/40
	EPA 625	G-TLC	2000	4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	7/40
<b>THMs</b>	EPA 524.2	G-TLS	2x40 Clear	4°C, Ascorbic Acid	14
<b>Total Toxic Organics [TTOs]</b>					
TTO Semi-Vols	EPA 8270C	G-TLS/C	2 x 2000	4°C	7/30
TTO Vols	EPA 8260B	G-TLS	2 x 40	4°C*, HCl-pH<2	14
<b>TPH - Gas [GRO]</b>	EPA 8260B	G-TLS	3 x 40	4°C*, HCl-pH<2	14
<b>TPH - Diesel [DRO]</b>	EPA 8015M	G-TLS	3 x 40	4°C*, HCl-pH<2	14
<b>Volatile Organics (VOCs)</b>	EPA 524.2	G-TLS	2x40 Clear	4°C, Ascorbic Acid HCl to pH<2**	14
	SW 846 8260B	G-TLS	3 x 40	4°C*, HCl-pH<2	14
	EPA 624	G-TLS	3 x 40	4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	7

### Notations:

\* Add Na<sub>2</sub>SO<sub>3</sub> (Sodium Sulfite) if chlorine is present.

\*\* Preservation added after sampling.

*Those samples in italics should be checked for residual chlorine and adjusted to pH <2 upon receipt. For DW Pesticides, 4 bottles should be adjusted.*

### Holding Time:

(Days to Extraction) / (Days to Analysis)

### Acronym Definitions:

P = Polyethylene; G = Glass

G-TLC = Glass, Teflon-Lined Cap

G-TLS = Glass, Teflon-Lined Septum

Na<sub>2</sub>SO<sub>3</sub> = Sodium Sulfite; Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> = Sodium Thiosulfate