

Recommended Containers, Preservation, Storage, & Holding Times

Sample Integrity

Eurofins Spectrum Analytical, Inc. is committed to maintaining the integrity of all samples submitted for laboratory analyses. Spectrum has a set criterion that all samples must pass in order to be considered to be of satisfactory condition. The Sample Department will notify the client of any samples that may be considered to be of unsatisfactory condition. Analysis of unsatisfactory samples will be conducted only with the written authorization from the client.

Collection of Samples in Duplicate

The collection of a sample in duplicate is requested when submitting a series of five or more samples per Chain of Custody. Collecting double the volume of a sample will enable us to perform additional quality control procedures in the laboratory. This practice may also be utilized when submitting samples for a project requiring additional quality control information.

Cooling of Samples

Samples must be chilled to $<6^{\circ}\text{C}$ immediately following collection and packed with a sufficient amount of ice to maintain that temperature until receipt at laboratory facility. EPA protocols do not allow the use of icepacks or ice substitutes (blue ice) because they are unable to maintain a cold enough temperature. Where "Cool $\leq 6^{\circ}\text{C}$ " is stated, samples are not to be frozen. Drinking water samples must also include a temperature blank in the cooler.

Laboratories are required to maintain a record of sample temperature as received. Spectrum utilizes infrared temperature recorder to monitor temperature, with the exception of temperature blanks which are measured by immersion thermometer. A notation of the temperature is made on the Chain of Custody. Samples received on ice will be noted as such.

Table 1
Recommended Containers, Preservation, Storage, & Holding Times
For Water and Wastewater

Description	Method	Matrix	Sample Container ¹	Preservative ²	Prep/Analysis Holding Time	Volume
Volatile/Semivolatile Analyses						
EDB, DBCP	504.1, 8011	H ₂ O	G (b) Tef Sep	Cool $\leq 6^{\circ}\text{C}$, 75 μL Na ₂ S ₂ O ₃ Solution	14 days	40 ml ^{3,4}
Haloacetic Acids	552.2	H ₂ O	AG(a) Tef Cap	Cool $\leq 6^{\circ}\text{C}$, NH ₄ Cl	14 days	250 ml ^{3,4}
GCMS-Purgeables	524.2	H ₂ O	G (b) Tef Sep	Cool $\leq 6^{\circ}\text{C}$ Ascorbic acid & HCl to pH <2 ^{2,5}	14 days	40 ml ^{4,12}
GCMS-Purgeables	524.2- THMs only	H ₂ O	G (b) Tef Sep	Cool $\leq 6^{\circ}\text{C}$ Na ₂ S ₂ O ₃ Solution	14 days	40 ml ^{4,12}
GCMS-Purgeables	624, 8260C	H ₂ O	G (b) Tef Sep	Cool $\leq 6^{\circ}\text{C}$ HCl to pH <2 ^{2,5}	14 days ⁵	40 ml ^{4,12}
GCMS-Acrolein, Acrylonitrile, 2-Chloroethylvinyl ether	624	H ₂ O	G (b) Tef Sep	Cool $\leq 6^{\circ}\text{C}$ ²	3 days ¹³	40 ml ^{4,12}
GC-Pesticides	608, 8081B	H ₂ O	AG (a) Tef Cap	Cool $\leq 6^{\circ}\text{C}$ ^{2, 14}	7/40 days ⁶	1 L ^{3,4}
GC- PCBs	608, 8082A	H ₂ O	AG (a) Tef Cap	Cool $\leq 6^{\circ}\text{C}$ ^{2, 14}	1yr/1 yr ¹⁶	1 L ^{3,4}

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GC-Herbicides	8151A	H ₂ O	AG (a) Tef Cap	Cool ≤6 ⁰ C ^{2, 14}	7/40 days ⁶	1 L ^{3,4}
GC/MS-Semivolatiles – PAHs Base Neutral/Acid Extractable	625, 8270D	H ₂ O	AG (a) Tef Cap	Cool ≤6 ⁰ C ²	7/40 days ⁶	1 L ^{2,3}
Petroleum Hydrocarbon Analyses						
Oil & Grease	1664B	H ₂ O	AG (a) Tef Cap	Cool ≤6 ⁰ C HCl or H ₂ SO ₄ to pH<2	28 days ⁷	1 L ³
Total Petroleum Hydrocarbons	1664B	H ₂ O	AG (a) Tef Cap	Cool ≤6 ⁰ C HCl or H ₂ SO ₄ to pH<2	28 days ⁷	1 L ³
Diesel Range Organics (DRO)	Modified 8015D	H ₂ O	G (b) Tef Cap	Cool ≤6 ⁰ C HCl to pH <2	7/40 days ⁶	1 L ³
Gasoline Range Organics (GRO)	Modified 8015D	H ₂ O	G (b) Tef Sep	Cool ≤6 ⁰ C HCl to pH <2	14 days	40 ml ^{4,12}
Total Petroleum Hydrocarbons by GC	Modified 8100	H ₂ O	G (a) Tef Cap	Cool ≤6 ⁰ C HCl to pH <2	7/40 days ⁶	1 L ³
NJ DEP EPH	NJ EPH Rev 3	H ₂ O	G (a) Tef Cap	Cool ≤6 ⁰ C HCl to pH <2	14/40 days ⁶	1 L ³
MA DEP EPH	5/2004	H ₂ O	G (a) Tef Cap	Cool ≤6 ⁰ C HCl to pH <2	14/40 days ⁶	1 L ³
MA DEP VPH	5/2004	H ₂ O	G (b) Tef Sep	Cool ≤6 ⁰ C HCl to pH<2 ⁵	14 days ⁵	40 ml ^{4,12}
CT DPH ETPH	CT ETPH	H ₂ O	G (a) Tef Cap	Cool ≤6 ⁰ C ²	7/40 days ⁶	1 L ³
Metal Analyses						
ICP/ICPMS Metals except Boron	200.7/200.8 6010C/6020A	H ₂ O	P or G (c)	Cool ≤6 ⁰ C HNO ₃ to pH<2 ⁸	6 months	250 ml
Boron	200.7/6010C	H ₂ O	P (c)	Cool ≤6 ⁰ C HNO ₃ to pH<2 ⁸	6 months	250 ml
Mercury	245.1/7470A	H ₂ O	P or G (c)	Cool ≤6 ⁰ C HNO ₃ to pH<2 ⁸	28 days	250 ml
Chromium VI	7196A/SM3500 Cr D	H ₂ O	P or G	Cool ≤6 ⁰ C	24 hours	200 ml
Lead, Organic	CA LUFT	H ₂ O	G (a) Tef Cap	Cool ≤6 ⁰ C	Analyze immediately	1 L ³
Inorganic/Wet Chemistry Analyses						
Ion Chromatography Anions	300.0	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days ¹⁰	500 ml

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Description	Method	Matrix	Sample Container ¹	Preservative ²	Prep/Analysis Holding Time	Volume
Acidity	SM 2310B	H ₂ O	P or G	Cool ≤6 ⁰ C ¹⁵	14 days	150 ml
Alkalinity	SM 2320B	H ₂ O	P or G	Cool ≤6 ⁰ C ¹⁵	14 days	150 ml
BOD	SM 5210 B	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	1 L
Bromide	300.0	H ₂ O	P or G	None Required	28 days	100 ml
BTU	ASTMD 240	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days	50 ml
CBOD	SM 5210 B	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	1 L
Chlorine, Total Residual	SM 4500 Cl-G	H ₂ O	P or G	None Required	Analyze within 15 minutes	200 ml
Chloride	300.0	H ₂ O	P or G	None Required	28 days	100 ml
COD	Hach 8000	H ₂ O	P or G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	50 ml
Coliform, Fecal	SM 9222D	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	8 hours	100 ml
Coliform, Fecal Strep	SM9230A/B	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	6 hours	100 ml
Coliform, Total	EPA 1604	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	DW:30 hours ¹⁷ Non-potable water:8 hours	100 ml
Coliform, E. Coli	EPA 1604 (DW) EPA 1603 (Aq)	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	DW:30 hours ¹⁷ Non-potable water:8 hours	100 ml
Color	SM 2120 B	H ₂ O	AP or AG	Cool ≤6 ⁰ C	48 hours	200 ml
Conductance, Specific	SM 2510 B	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days	100 ml
Cyanide, Amenable	335.4/9012	H ₂ O	P or G (a)	Cool ≤6 ⁰ C NaOH to pH>10 ²	14 days	500 ml
Cyanide, Free	335.4	H ₂ O	P or G (a)	Cool ≤6 ⁰ C NaOH to pH>12 ²	14 days	500 ml
Cyanide, Total	335.4/9012	H ₂ O	P or G (a)	Cool ≤6 ⁰ C NaOH to pH>12 ²	14 days	500 ml
Enterococci	EPA 1600	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	8 hours	100 ml
Flash Point	SW 846 1010A	H ₂ O	P or G	Cool ≤6 ⁰ C	ASAP	50 ml
Fluoride	300.0	H ₂ O	P	None Required	28 days	100 ml
Hardness	SM 2340B	H ₂ O	P or G	Cool ≤6 ⁰ C HNO ₃ to pH<2	6 months	100 ml
Heterotrophic Plate Count	SM 9215B	H ₂ O	Sterile Plastic	Cool ≤6 ⁰ C ²	8 hours	100 ml
Iodide	345.1	H ₂ O	P or G	Cool ≤6 ⁰ C	24 hours	100 ml
MBAS (Surfactants)	425.1	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	250 ml
Nitrogen, Ammonia	SM 4500 NH3-B, C	H ₂ O	P or G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	400 ml
Nitrogen, Total Kjeldahl	SM 4500N _{org} B,C SM 4500 NH3-C	H ₂ O	P or G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	500 ml

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Nitrogen, Nitrate	300.0/353.2	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	250 ml
Nitrogen, Nitrate plus Nitrite	300.0/353.2	H ₂ O	P or G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	100 ml
Nitrogen, Nitrite	300.0/353.2	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	100 ml
Odor	SM 2150B	H ₂ O	G	Cool ≤6 ⁰ C	24 hours	500 ml
Orthophosphate	ASTM D515-88 A	H ₂ O	P or G	Cool ≤6 ⁰ C	Filter within 15 minutes; analyze within 48 hours ¹¹	100 ml
Oxygen, Dissolved	360.1 360.2	H ₂ O	G Bottle with G Top	None Required	Analyze within 15 minutes	300 ml
pH , Hydrogen ion	ASTM D1293-99B	H ₂ O	P or G	None Required	Analyze within 15 minutes	25 ml
Phenolics	420.4	H ₂ O	G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	1 L ³
Phosphorous, Total	ASTM D515-88 A	H ₂ O	P or G	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	500 ml
Residue, Filterable (TDS)	SM 2540 C	H ₂ O	P or G	Cool ≤6 ⁰ C	7 days	300 ml
Residue, Non-filterable (TSS)	SM 2540 D	H ₂ O	P or G	Cool ≤6 ⁰ C	7 days	1 L
Residue, Settleable	SM 2540 F ¹¹	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	1 L
Residue, Total	HACH 8167	H ₂ O	P or G	Cool ≤6 ⁰ C	7 days	300 ml
Residue, Volatile	SM 2540 E	H ₂ O	P or G	Cool ≤6 ⁰ C	7 days	100 ml
Salinity	SM 2520	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days	100 ml
Silica	200.7/6010C	H ₂ O	P	Cool ≤6 ⁰ C	28 days	200 ml
Specific Gravity	ASTM D854-02	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days	500 ml
Sulfate	300.0/375.4	H ₂ O	P or G	Cool ≤6 ⁰ C	28 days	300 ml
Sulfide	SM 4500-S D	H ₂ O	P or G	Cool ≤6 ⁰ C Zn Acetate & NaOH to pH>9	7 days	500 ml
Sulfite	SM 4500 SO3-B	H ₂ O	P or G	None Required	Analyze within 15 minutes	100 ml
Total Organic Carbon (TOC)	5310B	H ₂ O	AG (a)	Cool ≤6 ⁰ C H ₃ PO ₄ to pH<2	28 days	40 ml
Dissolved Organic Carbon (DOC)	5310B	H ₂ O	G (b) Tef Sep	Cool ≤6 ⁰ C	28 days	40 ml
Total Organic Halogens (TOX)	SW 9020B	H ₂ O	AG	Cool ≤6 ⁰ C H ₂ SO ₄ to pH<2	28 days	250 ml
Turbidity	180.1	H ₂ O	P or G	Cool ≤6 ⁰ C	48 hours	100 ml

Notes:

- 1 G (x) = glass; AG (x) = amber glass; P (x) = plastic; Tef Sep = Teflon septum; Tef Cap = Teflon lined cap; x = cleaning protocol as follows: a = acid wash + solvent wash + oven dry; b = oven dry; c = acid wash.
- 2 For organics and bacteriological analysis, sodium thiosulfate is required for all chlorinated waters. If analytes that are gases at room temperature (such as vinyl chloride) are to be determined, sodium thiosulfate is recommended to reduce the residual chlorine when testing using method 524.2. For cyanide, use 0.6g ascorbic acid. Dechlorination must be performed prior to the addition of any necessary preservative.
- 3 Samples must be provided in duplicate to cover for breakage and provide sufficient sample for QC procedures. Extractable organics with matrix spike/matrix spike duplicate QC protocols require a triplicate sample.
- 4 Fill completely to avoid volatile loss.
- 5 Samples with purgeable aromatics must be acidified with HCl to pH<2 in order to have a 14-day holding time.
- 6 Holding time is seven days from sample collection date for extraction, 40 days from extraction date for analysis of the extract. Holding time is fourteen days for extraction if listed as 14/40.
- 7 The EPA has not recommended petroleum hydrocarbon holding times. The holding time given is the laboratory practice by analogy with Oil and Grease standards. State of New Jersey holding time is 7 days. California LUFT is 14 days.
- 8 An aqueous sample may be collected and shipped without acid preservation. However, acid must be added at least 24 hours before analysis to dissolve any metals that adsorb to the container walls. If the sample must be analyzed within 24 hours of collection, add the acid immediately. For the determination of dissolved elements in accordance with 40 CFR 136.3, the sample must be filtered through a 0.45 µm pore diameter membrane filter within 15 minutes of collection and before adding preservative.
- 9 The EPA allows only 14 days holding time for mercury in plastic bottles for drinking water analysis.
- 10 Certain anions require special handling. Holding times and preservation for a particular sample will be determined by the requirement for the anion of interest with the shortest holding time; e.g., nitrate and nitrite - 48 hours; orthophosphate-filter and 48 hours.
- 11 The immediate filtration requirement in orthophosphate measurement is to assess the dissolved or bio-available form of orthophosphorus (*i.e.*, that which passes through a 0.45-micron filter), hence the requirement to filter the sample immediately upon collection (*i.e.*, within 15 minutes of collection).
- 12 Samples must be provided in triplicate to cover for breakage and provide sufficient sample for screening and QC procedures.
- 13 Analysis of an unpreserved sample for Acrolein must occur within 3 days of collection. Analysis of a preserved sample for Acrolein and Acrylonitrile will require a preservation to pH 4-5. The pH adjustment is not required if acrolein will not be measured. It is the client's responsibility to request appropriate containers and notify the lab when analyzing for Acrolein and Acrylonitrile by 624.
- 14 Samples with a pH outside of 5.0-9.0 range should be adjusted to a pH range of 5.0-9.0 with sodium hydroxide solution or sulfuric acid within 72 hours of collection.
- 15 Separate bottle filled completely to the exclusion of air.
- 16 Holding time is 1 year from sample collection date for extraction, 1 year from extraction date for analysis of the extract except for samples analyzed under State of Connecticut RCP requirements stipulate holding time is seven days from sample collection date for extraction, 40 days from extraction date for analysis of the extract for method 8082.
- 17 Analyze samples as soon as possible after collection. Drinking water samples should be analyzed within 30 h of collection. Do not hold source water samples longer than 6 h between collection and initiation of analyses, and the analyses should be complete within 8 h of sample collection.

Table 2
Recommended Containers, Preservation, Storage, & Holding Times
For Soil, Solids, and Wastes

Description	Method	Matrix	Sample Container ¹	Preservative	Prep/Analysis Holding Time	Volume
Volatile/Semivolatile Analyses						
GCMS- Purgeables	8260C	Soil/Waste	See Table 3			
GC-Pesticides	8081B	Soil/Waste	AG (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ³	100 g or 8 oz Jar
GC- PCBs	8082A	Soil/Waste	AG (a) Tef Cap	Cool $\leq 6^{\circ}$ C	1yr/40 days ⁹	100 g or 8 oz Jar
GC-Herbicides	8151A	Soil/Waste	AG (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ³	100 g or 8 oz Jar
GC/MS-Semivolatiles – PAHs Base Neutral/Acid Extractable	8270D	Soil/Waste	AG (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ³	100 g or 8 oz Jar
Petroleum Hydrocarbon Analyses						
Oil & Grease	1664B	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	28 days	100 g or 8 oz Jar
Diesel Range Organics (DRO)	Modified 8015D	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ^{3,4}	100 g or 8 oz Jar
Gasoline Range Organics (GRO)	Modified 8015D	Soil	G (b) Tef Sep	Cool $\leq 6^{\circ}$ C 15 ml CH ₃ OH	14 days	15 g ²
Total Hydrocarbons by GC	Modified 8100	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ^{3,4}	100 g or 8 oz Jar
MA DEP VPH	5/2004	Soil	2 - 40 ml VOA vials with Teflon-lined screw caps	Add 15 g of soil to pre-weighed, lab-preserved methanol vials; Cool to $\leq 6^{\circ}$ C but not frozen	28 days	
MA DEP EPH	5/2004	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ^{3,4}	100 g or 8 oz Jar
NJ DEP EPH	NJ EPH Rev 3	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ^{3,4}	100 g or 8 oz Jar
CT DPH ETPH	CT ETPH	Soil	G (a) Tef Cap	Cool $\leq 6^{\circ}$ C	14/40 days ^{3,4}	100 g or 8 oz Jar
Metal Analyses						
ICP/ICPMS Metals	200.7/6010C/ 6020B	Soil	P or G (c)	Cool $\leq 6^{\circ}$ C	6 months	100 g or 8 oz Jar
Mercury	7471B	Soil	P or G (c)	Cool $\leq 6^{\circ}$ C	28 days	100 g or 8 oz Jar
Chromium VI	SW846 7196A	Soil	P or G (c)	Cool $\leq 6^{\circ}$ C	30 days	200 g or 8 oz Jar

Table 2
Recommended Containers, Preservation, Storage, & Holding Times
For Soil, Solids, and Wastes

Description	Method	Matrix	Sample Container ¹	Preservative	Prep/Analysis Holding Time	Volume
General Inorganic Analyses						
General Inorganics	9000 Series	Soil	P or G (c) ⁵	Cool ≤6 ⁰ C	Not to exceed Table 1 specifications	100 g or 8 oz Jar
BTU	ASTMD 240	Soil	P or G	Cool ≤6 ⁰ C	28 days	50 g
Flashpoint/Ignitability	1010A/1030	Soil	G (b) Tef Sep or G (a) Tef Cap	Cool ≤6 ⁰ C	ASAP	100 g or 8 oz Jar ⁶
Free liquids	9095B	Soil/Waste	P or G	None	None	100 g or 8 oz Jar
pH/Corrosivity	9045D	Soil/Waste	P or G	Cool ≤6 ⁰ C	ASAP	100 g or 2 oz Jar ²
Reactivity	SW 846 Ch. 7.3	Soil/Waste	P or G	Cool ≤6 ⁰ C	ASAP ⁷	100 g or 8 oz Jar
Standard Plate Count	SM 9215 B	Soil/Waste	Sterile Plastic	Cool ≤6 ⁰ C	24 hours	100 g
TCLP/SPLP	1311/1312	Soil/Waste	Inorganics - P or G (c) or (a) Organics - G (a)	Cool ≤6 ⁰ C if appropriate	varies by method	500 g or 32oz Jar ^{2,8}
Total Organic Carbon (TOC)	Lloyd Kahn	Soil	G (a) Tef Cap	Cool ≤6 ⁰ C	14 days	100g or 8 oz Jar
Total Organic Halogens (TOX)	9020B	Soil	G (a) Tef Cap	Cool ≤6 ⁰ C	28 days	100g or 8 oz Jar

Notes:

- ¹ G (x) = glass; AG (x) = amber glass; P (x) = plastic; Tef Sep = Teflon septum; Tef Cap = Teflon lined cap; x = cleaning protocol as follows: a = acid wash + solvent wash + oven dry; b = oven dry; c = acid wash.
- ² Fill completely to avoid volatile loss; if pre-weighted VOA vials are used, sample cannot exceed half volume of the vial.
- ³ Holding time is fourteen days from sample collection date for extraction, 40 days from extraction date for analysis of extract.
- ⁴ EPA has not recommended oil and grease, petroleum hydrocarbons or EDB holding times in soil. The holding time is given by analogy to extractable organics.
- ⁵ Acid washed containers are not appropriate for nitrate and other N analysis. Use glass container ordered with cleaning protocol (1-Chem V220-0250, or equivalent).
- ⁶ Fill completely to avoid volatile loss. If vials are used, a minimum of 4 is required.
- ⁷ Holding time is not to exceed 14 days. If sulfide reactivity is sought, then not to exceed 7 days.
- ⁸ TCLP samples with liquid require more sample volume. For example, a sample with 10% solids requires a minimum of 2000g. Aqueous samples should routinely be provided as 3 liters in order to cover for breakage and provide sufficient sample for laboratory QC.
- ⁹ Holding time is 1 year from sample collection date for extraction, 40 days from extraction date for analysis of the extract except for samples analyzed under State of Connecticut RCP requirements stipulate holding time is fourteen days from sample collection date for extraction, 40 days from extraction date for analysis of the extract for method 8082.
- ¹⁰ In order to be compliant with method requirements for hexavalent chromium in soil, the laboratory will also analyze and report pH and ORP. Testing for pH and ORP should be conducted ASAP. MA CAM and CT RCP protocols specify a maximum holding time of 24 hours for ORP.

Table 3
Recommended Containers, Preservation, Storage, & Holding Times
For VOC Soil Samples

In order to alleviate uncertainties regarding which sample collection technique to use, Spectrum recommends the collection of soil samples in accordance with both low and high concentration techniques. Spectrum will provide laboratory screening of the sample prior to analysis to determine the analysis of the most appropriate preservation technique. Please make certain to submit an additional VOA vial without any sample preservation solution for screening and dry weight determination.

Matrix	Container	Preservative	Holding Time
Soil/Sediment Samples High-Level Analysis	Extrude 15 grams of sample directly into (1) x pre-weighed 40-mL vials containing 15 mL purge-and-trap grade methanol w/ Teflon-lined septa screw caps.*	1 mL methanol for every gram soil/sediment; add methanol before or at time of sampling; Cool to $\leq 6^{\circ}\text{C}$ but not frozen; protect from light	14 days
Soil/Sediment Samples Low-Level Analysis by Closed-System Purge-and-Trap Process (SW-846 Method 5035A)	Extrude 5 grams of sample directly into (2) x pre-weighed 40 ml VOC vials containing 5 mL of reagent water and a Teflon-coated magnetic stir bar.*	Cool to $\leq 6^{\circ}\text{C}$ in field and deliver to laboratory for freezing ($< -7^{\circ}\text{C}$) or analysis, both within 48 hours of sample collection. <u>Alternatively</u> , samples may be frozen to -7° to -15°C in the field using gel packs. <u>Caution:</u> samples to be frozen should not be stored vertically. These samples should be stored horizontally or at least at a 45 degree angle to avoid breakage from expansion.	14 days Any samples which are frozen must be analyzed within 48 hours of thawing.
Soil/Sediment Samples TCLP or SPLP VOC Analysis	25-gram En Core®-type device (Sampling devices are not provided by the laboratory, although we can refer you to an authorized reseller for these sampling supplies.)*	Samples must be leached or frozen between -7° to -15°C within 48 hours of collection.	14 days from collection to leaching; 14 days from leaching to analysis
*An extra aliquot of sample must be collected in a 4 oz. glass jar with no preservative so that the laboratory can perform a percent solids analysis. If the same sample is being submitted to the laboratory for additional analyses which require no preservative, the percent solids analysis can be measured using an aliquot from these sampling containers. Otherwise, a separate bottle will be required.			