



# TEXAS RESEARCH INSTITUTE FOR ENVIRONMENTAL STUDIES

Sam Houston State University

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Test Parameter	Min. Sample Size	Container Type	Preservative	Holding Time
Acidity	1000 mL	Plastic or Glass	Cool, 4 °C	14 days
Agriculture soil test 1	25 g	Plastic or Glass	Cool, 4 °C	14 days
Agriculture soil test	25 g	Plastic or Glass	Cool, 4 °C	14 days
Agriculture soil test 3	25 g	Plastic or Glass	Cool, 4 °C	14 days
Agriculture soil test 4	25 g	Plastic or Glass	Cool, 4 °C	14 days
Agriculture soil test 5	25 g	Plastic or Glass	Cool, 4 °C	14 days
Alkalinity	1000 mL	Plastic or Glass	Cool, 4 °C	14 days
Amenable Cyanide	1000 mL/50 g	Plastic or Glass	Cool, 4 °C	14 days
Ammonia-Nitrogen	250 mL/50 g	Plastic or Glass	H2SO4 to pH<2	28 days
Anion Scan (F, Cl, NO2, Br, NO3, PO4, SO4)	100 mL/10 g	Plastic or Glass	Cool, 4 °C	48 hr
Anion-Cation Balance	1000 mL	Plastic or Glass	Cool, 4 °C	48 hr
Anionic Surfactants	1000 mL	Plastic or Glass	Cool, 4 °C	48 hr
Biochemical Oxygen Demand (BOD)	1000 mL	Plastic or Glass	Cool, 4 °C	48 hr
Bromate	100 mL/10 g	Plastic or Glass	Cool, 4 °C	24 hr
Bromide	100 mL/10 g	Plastic or Glass	Cool, 4 °C	28 days
BTEX	2 vials/50 g	Amber VOA	Cool, 4 °C	14 days
Bulk Density	25 g	Plastic or Glass	Cool, 4 °C	28 days
Carbamate Pesticides-HPLC	1000 mL/50 g	Amber Glass	Cool, 4 °C	28 days
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Carbonaceous Bichemical Oxygen Demand (CBOD)	1000 mL	Plastic or Glass	Cool, 4 °C	48 hr
Cation Exchange Capacity (CEC)	50 g	Glass	Cool, 4 °C	28 days
Chemical Oxygen Demand (COD)	100 mL/50 g	Plastic or Glass	H2SO4 to pH<2	28 days
Chlorate	100 mL/10 g	Plastic or Glass	Cool, 4 °C	24 hr
Chloride	100 mL/10 g	Plastic or Glass	Cool, 4 °C	28 days
Chloride, Titrimetric	500 mL/50 g	Plastic or Glass	Cool, 4 °C	28 days
Chlorinated Herbicides	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Chlorite	100 mL/10 g	Plastic or Glass	Cool, 4 °C	24 hr
Chlorophyll	100 mL/10 g	Plastic or Glass	Cool, 4 °C	24 hr
CLP TAL metals	100 mL/25 g	Plastic or Glass	HNO3 pH<2	6 mo
Color	500 mL	Plastic or Glass	Cool, 4 °C	48 hr
Conductance	500 mL/25 g	Plastic or Glass	Cool, 4 °C	28 days
Corrosivity	50 g	Plastic or Glass	Cool, 4 °C	24 hr
Corrosivity Index	1000 mL	Plastic or Glass	Cool, 4 °C	14 days
Dissolved Oxygen (DO)	300 mL	Plastic or Glass	Cool, 4 °C	24 hr
Explosives	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/28 days
Fecal Coliform	250 mL	Plastic or Glass	Cool, 4 °C, Na2S2O3	24 hr
Flame AA metals (ea)	100 mL/25 g	Plastic or Glass	HNO3 pH<2	6 mo
Fluoride	100 mL/10 g	Plastic or Glass	Cool, 4 °C	28 days
Forage test 1	25 g	Plastic or Glass	Cool, 4 °C	14 days
Forage test 2	25 g	Plastic or Glass	Cool, 4 °C	14 days

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Forage test 3 (NO3)	25 g	Plastic or Glass	Cool, 4 °C	14 days
Forage test 4 (crude protein)	25 g	Plastic or Glass	Cool, 4 °C	14 days
Glyphosate Herbicide-HPLC	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/28 days
Graphite Furnace metals (ea)	100 mL/25 g	Plastic or Glass	HNO3 pH<2	6 mo
Heterotrophic Plate Count	500 mL	Plastic or Glass	Cool, 4 °C	6 hr
Hexane Extractable Material (HEM)-Oil & Grease	1000 mL/50 g	Amber Glass	H2SO4 to pH<2	28 days
Hexavalent Chromium	500 mL/50 g	Plastic or Glass	Cool, 4 °C	24 hr
ICP metals (ea)	100 mL/25 g	Plastic or Glass	HNO3 pH<2	6 mo
Ignitability (Flashpoint)	100 g	Glass	Cool, 4 °C	28 days
Iodide	100 mL/10 g	Plastic or Glass	Cool, 4 °C	28 days
Leaf tissue analysis	25 g	Glass	Cool, 4 °C	28 days
Mercury	100 mL/25 g	Plastic or Glass	HNO3 pH<2	6 mo
MTBE	2 vials/50 g	Amber VOA	Cool, 4 °C	14 days
Nitrate-Nitrogen	100 mL/10 g	Plastic or Glass	Cool, 4 °C	48 hr
Nitrite-Nitrogen	100 mL/10 g	Plastic or Glass	Cool, 4 °C	48 hr
Nonionic Surfactants-CTAS	1000 mL	Plastic or Glass	4 C	48 hours
Non-volatile TCLP Extraction	1000 mL/100 g	Plastic or Glass	Cool, 4 °C	7 days
Nutrient Extraction	25 g	Plastic or Glass	Cool, 4 °C	7 days
O & G-Extraction Method	50 g	Glass	Cool, 4 °C	7 days
Organic Matter	50 g	Plastic or Glass	Cool, 4 °C	14 days

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Organochlorine Pesticides-GC/MS	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
orthophosphate	100 mL/10 g	Plastic or Glass	Cool, 4 °C	48 hr
orthophosphate-colorimetric	500 mL/25 g	Plastic or Glass	Cool, 4 °C	48 hr
Oxidation-Reduction Potential	250 mL	Plastic or Glass	Cool, 4 °C	24 hr
Paint Filter Liquid	100 g	Glass	Cool, 4 °C	28 days
Particle Size Distribution	50 g	Plastic or Glass	Cool, 4 °C	28 days
pH	250 mL/25 g	Plastic or Glass	Cool, 4 °C	24 hr
Phenols by Gas Chromatography	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Phenols by Gas Chromatography	50 g	Glass	Cool, 4 °C	7/40 days
Phenols by GC/MS	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Plant Nutrients	25 g	Plastic or Glass	Cool, 4 °C	14 days
Polychlorinated Biphenyls (PCB) by GC	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Polychlorinated Biphenyls (PCB) by GC/MS	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Polynuclear Aromatic Hydrocarbons (PAH)	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
Polynuclear Aromatic Hydrocarbons (PAH)-HPLC	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days
PPL metals	100 mL/25 g	Plastic or Glass	HNO <sub>3</sub> pH<2	6 mo
RCRA metals	100 mL/25 g	Plastic or Glass	HNO <sub>3</sub> pH<2	6 mo
Reactive Cyanide	50 g	Plastic or Glass	Cool, 4 °C	14 days
Reactive Sulfide	50 g	Plastic or Glass	Cool, 4 °C, NaOH pH>9	14 days
Salinity	1000 mL/25 g	Plastic or Glass	Cool, 4 °C	28 days
Semivolatile Organic Compounds-GC/MS	1000 mL/50 g	Amber Glass	Cool, 4 °C	7/40 days

Test Parameter	Min. Sample Size	Container Type	Preservative	Holding Time
Settleable Solids	1000 mL	Plastic or Glass	Cool, 4 °C	48 hr
Silica Gel Treated Hexane Extractable Material	1000 mL/50 g	Amber Glass	H2SO4 to pH<2	28 days
Specific Gravity	1000 mL/50 g	Plastic or Glass	Cool, 4 °C	28 days
Sulfate	100 mL/10 g	Plastic or Glass	Cool, 4 °C	28 days
Sulfide	1000 mL/50 g	Plastic or Glass	Cool, 4 °C, NaOH pH>9	14 days
Sulfite	100 mL/10 g	Plastic or Glass	Cool, 4 °C	48 hr
TCEQ Appendix B Soil Testing	50 g	Plastic or Glass	Cool, 4 °C	28 days
TCLP Chlorinated Pesticides	1000 mL/100 g	Plastic or Glass	4 C	7/40 days
TCLP Herbicides	1000 mL/100 g	Plastic or Glass	4 C	7/40 days
TCLP Metals	1000 mL/100 g	Plastic or Glass	4 C	28 days
TCLP Semivolatiles	1000 mL/100 g	Plastic or Glass	4 C	7/40 days
TCLP Volatiles	1000 mL/100 g	Amber Glass	4 C	14 days
Temperature	100 mL	Plastic or Glass	Cool, 4 °C	24 hr
Total Carbon, Organic Carbon	500 mL/50 g	Plastic or Glass	H2SO4 to pH<2	28 days
Total Coliform	250 mL	Plastic or Glass	Cool, 4 °C	24 hr
Total Cyanide	1000 mL/50 g	Plastic or Glass	Cool, 4 °C, NaOH pH>9	14 days
Total Dissolved Solids (TDS)	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Total Hardness	1000 mL	Plastic or Glass	HNO3 pH<2	6 mo
Total Nitrogen	500 mL/50 g	Plastic or Glass	Cool, 4 °C	28 days
Total Organic Halogen (TOX)	1000 mL/50 g	Glass	H2SO4 to pH<2	28 days

Test Parameter	Min. Sample Size	Container Type	Preservative	Holding Time
Total Petroleum Hydrocarbons (TPH)	2 vials/50 g	Amber VOA	Cool, 4 °C	14 days
Total Phenolics	1000 mL/50 g	Glass	H2SO4 to pH<2	28 days
Total Phosphorus-colorimetric	1000 mL/50 g	Glass	H2SO4 to pH<2	28 days
Total Residual Chlorine	500 mL	Plastic or Glass	Cool, 4 °C	24 hr
Total Solids (TS)	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Total Suspended Solids (TSS)	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Total Volatile Solids (TVS)	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Turbidity	500 mL	Plastic or Glass	Cool, 4 °C	24 hr
Volatile Dissolved Solids	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Volatile Organic Compounds-GC/MS	3 vials/50 g	Amber VOA	HCl pH<2	14 days
Volatile Suspended Solids (VSS)	1000 mL	Plastic or Glass	Cool, 4 °C	7 days
Weak Acid Dissociable Cyanide	1000 mL/50 g	Plastic or Glass	Cool, 4 °C, NaOH pH>9	14 days