



Parameter	Method	Matrix	Minimum Sample Size (not enough for batch QC)	Recommended Container/Size	Preservative	Hold Time *	Other Notes
1,4-Dioxane	SW 8270	water	1x250 ml amber glass	2x250 ml amber glass	0-6° C	7 days	(Ref Lab)
Acidity as CaCO3	SM 2310B	water	80 ml	1x250 ml HDPE	0-6° C	14 days	should be analyzed in the field
Acute Whole Effluent Toxicity (AWET)	(depends on permit)	water	(depends on permit)	1x2-8 gallon plastic (see permit)	0-6° C	24 hrs	(Ref Lab) need permit #/etc.
Alcohols: see Glycols or Alcohols							
Alkalinity as CaCO3 (Total or Full)	SM 2320B	water	80 ml	1x250 ml HDPE	0-6° C	14 days	should be analyzed in the field
Ammonia	SM 4500NH3-G	water	6 ml	1x125 ml HDPE	H2SO4; 0-6° C	28 days	
Anion/Cation Balance	SM 1030E	water	50 ml for metals 250 ml for others	1x60 ml Nalgene for NO2+NO3 1x250 ml HDPE for metals 1x500 ml HDPE for other analyses	H2SO4 HNO3 unpreserved	ASAP	field-filter for dissolved metals; other container unpreserved for alkalinity and anion analyses.
Asbestos	PCM or TEM	air	n/a	cartridge	none	n/s	(Ref Lab)
Asbestos	PLM or TEM	solids	1 gram	any	none	n/s	(Ref Lab)
Asbestos	TEM	DW	750 ml	2x1 L amber glass	0-6° C	48 hrs or ozonate	(Ref Lab) leave 20% headspace
Biochemical Oxygen Demand (BOD)	SM 5210B	water	depends on matrix	1x1 L HDPE (depending on matrix)	0-6° C	48 hrs	
Bromate	EPA 300.1	water	n/a	125 ml HDPE (special order)	1.25 ml 5% EDA 0-6° C	28 days	(Ref Lab)
Bromide	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Bromide	EPA 300.0/SW 9056A	water	10 ml	1x60 ml Nalgene	0-6° C	28 days	
BTEX	SW 8021B/8260C	soil	50 grams + separate unpreserved bottle for % solids determination	1x4 oz prew'd amber (2nd 4 oz unpreserve % solids jar if no other analyses)	MeOH+BFB; 0-6° C	28 days for AK101 (14 days for BTEX)	field-preservation required; use 50 g soil & 25 ml MeOH (can combo with GRO) TB required
BTEX	SW 8021B/8260C	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	(can combo with GRO) allow no headspace; TB required
CAN (Total Coliform, Arsenic, Nitrate)	SM 9223B, EPA 200.8, SM 4500NO3	DW	100 ml for coli 25 ml for metals 10 ml for ions	sterile 120 ml container for coli 1x120 mL Nalgene for metals 60 ml Nalgene for NO2+NO3	Na2S2O3 for coli, HNO3 for metals; H2SO4 for NOx; chill recommended	30 hrs for coli	
CAN (Total Coliform, Arsenic, Nitrate)	SM 9223B, EPA 200.8, SM 4500NO4	DW with PWSID	101 ml for coli 25 ml for metals 10 ml for ions	sterile 120 ml container for coli 1x120 mL Nalgene for metals 60 ml Nalgene for NO2+NO4	Na2S2O3 for coli, HNO3 for metals; H2SO4 for NOx; 2-6° C	30 hrs for coli	
Carbamates	EPA 531.1	DW	100 ml	3x40 ml amber VOA vials w/ septa (special order)	Na2S2O3; Monochloroacetic Acid; 0-6° C	7 days	(Ref Lab)
Carbamates	EPA 531.1	DW with PWSID	100 ml	3x40 ml amber VOA vials w/ septa (special order)	Na2S2O3; Monochloroacetic Acid; 2-6° C	7 days	(Ref Lab)
Chemical Oxygen Demand (COD)	EPA 410.4	water	10 ml (depends on matrix)	1x125 ml HDPE	H2SO4; 0-6° C	28 days	
Chlorate	EPA 300.1	water	n/a	1x125 ml HDPE (special order)	1.25 ml 5% EDA 0-6° C	28 days	(Ref Lab)
Chloride	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Chloride	EPA 300.0/SW 9056A	water	10 ml	1x60 ml Nalgene	0-6° C	28 days	
Chlorite	EPA 300.1	water	n/a	1x125 ml HDPE (special order)	1.25 ml 5% EDA 0-6° C	14 days	(Ref Lab)
Chlorophyll a	SM 10200H	water	500 ml	1x1 L amber glass (special order filters)	freeze filter ASAP	21 days	(Ref Lab) use 4.25 cm GF-B filter; field-filter & freeze
Chromium, Hexavalent	SM 3500Cr or SW 7196	water	30 ml	1x125 ml HDPE	0-6° C	24 hrs	
Chromium, Hexavalent	SW 7196	soil	100 grams	1x4 oz amber glass	0-6° C	28 days	(Ref Lab)
Chronic Whole Effluent Toxicity (CWET)	(depends on permit)	water	(depends on permit)	1x2-8 gallon plastic (see permit)	0-6° C	24 hrs	(Ref Lab) need permit specs
Coliform, Fecal (MF)	SM 9222D	water	100 ml	sterile 120 ml container filled to 100 ml mark	Na2S2O3; chill recommended	8 hrs	
Coliform, Total (MF)	SM 9222B	water	100 ml	sterile 120 ml container filled to 100 ml mark	Na2S2O3; chill recommended	30 hrs	(Contact SGS PM to make arrangements if hold time is other than 30 hours.)

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Coliform, Total (P/A)	SM 9223B	water	100 ml	sterile 120 ml container filled to 100 ml mark	Na2S2O3; chill recommended (LT2 <10° C)	30 hrs	(Contact SGS PM to make arrangements if hold time is other than 30 hours.)
Color, True or Apparent	SM 2120B	water	100 ml	1x250 ml HDPE	0-6° C	48 hrs	
Conductivity	SM 2510B	water	80 ml	1x250 ml HDPE	0-6° C	28 days	
Corrosivity (see pH)							
Cryptosporidia	EPA 1623	water	(depends on protocol)	1x10 L cubitainer	0-6° C	24 hrs	(Ref Lab) (can combo with Giardia)
Cyanide, Total	SM 4500CN-C,E	DW/W	2 ml	1x125ml amber HDPE	(Sodium Arsenite if chlorinated) NaOH; 0-6° C	14 days	
Cyanide, Total	SM 4500CN-C,E	DW with PWSID	2 ml	1x125ml amber HDPE	(Sodium Arsenite if chlorinated) NaOH; 2-6° C	14 days	
Cyanide, Weak Acid Dissociable	SM 4500CN-I	water	2 ml	1x125ml amber HDPE	NaOH; 0-6° C	14 days	
Diesel Range Organics (DRO)	AK102	oil	1 gram	1x20 ml scintillation vial	none	n/s	can combo with RRO
Diesel Range Organics (DRO)	AK102/8015C	oil	30+12 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	can combo with RRO
Diesel Range Organics (DRO)	AK102/8015C	water	1 Liter	2x1 L amber glass	HCl; 0-6° C	14/40 days (*)	can combo with RRO
Diesel Range Organics (DRO)-Low Vol.	AK102/8015C	water	250 ml	2x250 ml amber glass	HCl; 0-6° C	14/40 days (*)	
Dioxins	EPA 1613	DW	1 Liter	2x1 L amber glass	Na2S2O3; 0-6° C	28 days	(Ref Lab)
Dioxins	EPA 1613	DW with PWSID	1 Liter	2x1 L amber glass	Na2S2O3; 2-6° C	28 days	(Ref Lab)
Dioxins	SW 8280B or 8290A	soil	100 grams	1x4 oz amber	0-6° C	n/s	(Ref Lab)
Dioxins	SW 8280B or 8290A	water	1 Liter	2x1 L amber glass	0-6° C	n/s	(Ref Lab)
Diquat/Paraquat	EPA 549.2	DW	1 Liter	1x1 Liter amber poly	Na2S2O3; 0-6° C	7 days	(Ref Lab)
Diquat/Paraquat	EPA 549.2	DW with PWSID	1 Liter	1x1 Liter amber poly	Na2S2O3; 2-6° C	7 days	(Ref Lab)
Dissolved Metals (see Metals, Dissolved)							
Dissolved Organic Carbon (DOC)	SM 5310B	water	30 ml	1x125 ml amber glass	HCl; 0-6° C	28 days	field-filter; unpres. if lab-filtered (should be field-filtered)
Dissolved Oxygen	SM 4500O2-G	water	50 ml	BOD bottle w/ stopper	0-6° C	15 minutes	should be analyzed in the field; allow no headspace
EDB/DBCP	EPA 504.1	DW	40 ml	3x40 ml amber VOA vials w/ septa	0-6° C	14 days	(Ref Lab) TB required allow no headspace
EDB/DBCP	EPA 504.1	DW with PWSID	40 ml	3x40 ml amber VOA vials w/ septa	2-6° C	14 days	(Ref Lab) TB required allow no headspace
EDB/DBCP	SW 8011/8260B-SIM	soil	100 grams	1x4 oz amber	0-6° C	14 days	(Ref Lab) allow no headspace
EDB/DBCP	SW 8011/8260B-SIM	water	40 ml	3x40 ml amber VOA vials w/ septa	0-6° C	14 days	(Ref Lab) TB required allow no headspace
Endothall	EPA 548.1	DW	125 ml	1x125 ml amber glass	Na2S2O3; 0-6° C	7 days	(Ref Lab)
Endothall	EPA 548.1	DW with PWSID	125 ml	1x125 ml amber glass	Na2S2O3; 2-6° C	7 days	(Ref Lab)
Enterococci	Enterolert	water	100 ml	sterile 120 ml container filled to 100 ml mark	Na2S2O3; 0-6° C	8 hrs	
EPH	NW-EPH	soil	100 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	(Ref Lab)
EPH	NW-EPH	water	500 ml	2x500 ml amber (special order)	HCl; 0-6° C	7/40 days (*)	(Ref Lab)
Explosives	SW 8330A	soil	100 grams	1x4 oz amber glass	0-6° C	7 days	(Ref Lab)
Explosives	SW 8330A	water	1 Liter	2x1 L amber glass	0-6° C	7 days	(Ref Lab)
Fluoride	EPA 300.0/SW 9056A	water	10 ml	1x60 ml Nalgene	0-6° C	28 days	
Fluoride	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Gasoline Range Organics (GRO)	AK101/8015C	oil	1 gram	1x20 ml scintillation vial	none	n/s	(can combo with BTEX)
Gasoline Range Organics (GRO)	AK101/8015C	soil	50 grams + separate unpreserved bottle for % solids determination	1x4 oz prew'd amber (2nd 4 oz unpreserved % solids jar if no other analyses)	MeOH+BF3; chill recommended	28 days for AK101 (14 days for BTEX)	field-preservation required; use 50 g soil & 25 ml MeOH (can combo with BTEX) TB required
Gasoline Range Organics (GRO)	AK101/8015C	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	(can combo with BTEX) allow no headspace; TB required
Giardia	EPA 1623	water	(depends on protocol)	1x10 L cubitainer	0-6° C	24 hrs	(Ref Lab) (can combo with Crypto)
Glycols or Alcohols	SW 8015 modified	water	40 ml	3x40 ml VOA vials	0-6° C	14 days	(Ref Lab) specify each compound
Glycols or Alcohols	SW 8015 modified	liquid	1x120 ml amber glass	1x120 ml amber glass	n/a	14 days	(Ref Lab) specify each compound
Glycols or Alcohols	SW 8015 modified	solid	100 grams	1x4 oz glass	0-6° C	14 days	(Ref Lab) specify each compound
Glyphosate	EPA 547	DW	125 ml amber glass	1x125 ml amber glass	Na2S2O3; 0-6° C	7 days	(Ref Lab)
Glyphosate	EPA 547	DW with PWSID	125 ml amber glass	1x125 ml amber glass	Na2S2O3; 2-6° C	7 days	(Ref Lab)
Gross Alpha &/or Gross Beta	EPA 900	water	1 Liter	1x1 L HDPE	HNO3 (preserved at lab)	none	(Ref Lab)
Gross Heating Value	ASTM D 240	oil	5 ml	1x20 ml scintillation vial	none	n/s	
Haloacetic Acids Formation Potential	SM 5710/6251B	DW/W	1 Liter	2x1 Liter	0-6° C	ASAP/14 days	(Ref Lab)
Haloacetic Acids Formation Potential	SM 5710/6251B	DW/W with PWSID	1 Liter	2x1 Liter	2-6° C	ASAP/14 days	(Ref Lab)
Haloacetic Acids	EPA 552.3	DW/W	40 ml	3x40 ml amber VOA vials w/ septa	NH4Cl; 0-6° C	14 days	(Ref Lab)

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Haloacetic Acids	EPA 552.3	DW/W with PWSID	40 ml	3x40 ml amber VOA vials w/ septa	NH4Cl; 2-6° C	14 days	(Ref Lab)
Hardness	SM 2340B	water	25 ml	1x250 ml HDPE	HNO3	180 days	
Herbicides	EPA 515.4	DW	125 ml amber glass	2x125 ml amber glass	Sodium Sulfite; 0-6° C	14 days	(Ref Lab)
Herbicides	EPA 515.4	DW with PWSID	125 ml amber glass	2x125 ml amber glass	Sodium Sulfite; 2-6° C	14 days	(Ref Lab)
Herbicides	EPA 555	DW	1 Liter	2x1 L amber glass	Na2S2O3; 0-6° C	7/40 days (*)	(Ref Lab)
Herbicides	EPA 555	DW with PWSID	1 Liter	2x1 L amber glass	Na2S2O3; 2-6° C	7/40 days (*)	(Ref Lab)
Herbicides	SW 8151A	soil	100 grams	1x4 oz amber	0-6° C	14/40 days (*)	(Ref Lab)
Herbicides	SW 8151A	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	(Ref Lab)
Heterotrophic Plate Count (Pour Plate)	SM 9215B	water	100 ml	sterile 120 ml container filled to 100 ml mark	Na2S2O3; chill recommended	30 hrs for Pool/Spa 8 hrs for Drinking & Reagent Water	(Contact SGS PM to make arrangements if hold time is other than 30 hours.)
Ignitability, Seta Flash	SW 1020B	oil	10 ml	1x4 oz glass	none	n/s	
Inorganic Contaminants, Primary	EPA 200.8 and 300.0, SM 4500CN-C,E, 4500NO3-F	DW	50 ml for metals; 10 ml for cyanide; 20 ml for ions	1x250 ml HDPE for metals; 1x120 ml Nalgene for cyanide; 1x60 ml Nalgene for NO2+NO3; 1x60 ml Nalgene for anions	HNO3 for metals; NaOH for CN; H2SO4 for NOx; none for F; 0-6° C	28/180 days; 14 days; 28 days; 28 days	
Inorganic Contaminants, Primary	EPA 200.8 and 300.0, SM 4500CN-C,E, 4500NO3-F	DW with PWSID	50 ml for metals; 10 ml for cyanide; 20 ml for ions	1x250 ml HDPE for metals; 1x120 ml Nalgene for cyanide; 1x60 ml Nalgene for NO2+NO3; 1x60 ml Nalgene for anions	HNO3 for metals; NaOH for CN; H2SO4 for NOx; none for F; 2-6° C	28/180 days; 14 days; 28 days; 28 days	
Karl Fisher Water Content	ASTM D 1744	oil	10 ml	1x20 ml scintillation vial	none	n/s	
Kjeldahl Nitrogen: see Total Kjeldahl N							
Langlier Index	SM 2330B	DW	50 ml for metals 500 ml for others	1x250 ml HDPE for metals 1x500 ml HDPE for other analyses	HNO3 for metals; 0-6° C for others	ASAP	(req's pH, TDS, Alkalinity & Hardness)
Langlier Index	SM 2330B	DW with PWSID	50 ml for metals 500 ml for others	1x250 ml HDPE for metals 1x500 ml HDPE for other analyses	HNO3 for metals; 2-6° C for others	ASAP	(req's pH, TDS, Alkalinity & Hardness)
Lead in Paint	SW 6020A	solid	1 grams	any	none	6 months	
Lead/Copper Rule	EPA 200.8	DW	1 Liter	1x1 L HDPE (No substitutoin)	HNO3	6 months	"First Draw" collection required
MBAS: see Surfactants							
Mercury, Dissolved	EPA 200.8/245.1 or SW 6020A/7470A	Water	25 ml	1x250 mL HDPE	HNO3	28 days	field-filter; unpres. if lab-filtered (should be field-filtered)
Mercury, Methyl-	EPA 1630	Water	250 ml	1x250 ml Teflon (special order)	HCl	90 days	(Ref Lab)
Mercury, Total	EPA 200.8/245.1 or SW 6020A/7470A	Water	25 ml	1x250 mL HDPE	HNO3	28 days	
Mercury, Total	SW 6020A/7470A/7471B	soil	1+12 grams	1x4 oz glass	none; 0-6° C	28 days	
Mercury, Trace by CVAf (Low Level)	EPA 1631E	water	250 ml	1x500 ml FLPE, Teflon or amber glass	HCl	90 days	TB recommended
Metals, Dissolved (other than Hex.Cr)	EPA 200.8	water	20 ml	1x250 ml HDPE	HNO3	28 days for Hg 180 days for metals	field-filter; unpres. if lab-filtered (should be field-filtered)
Metals, Dissolved (other than Hex.Cr)	SW 6020A	water	25 ml	1x250 ml HDPE	HNO3	28 days for Hg 180 days for metals	field-filter; unpres. if lab-filtered (should be field-filtered)
Metals, Total (other than Hex.Cr)	EPA 200.8	water	20 ml	1x250 ml HDPE	HNO3	28 days for Hg 180 days for metals	
Metals, Total (other than Hex.Cr)	SW 6020A	soil	1+12 grams	1x4 oz glass	0-6° C	28 days for Hg 180 days for metals	
Metals, Total (other than Hex.Cr)	SW 6020A	oil	1 gram	1x20 ml scintillation vial	n/a	28 days for Hg 180 days for metals	
Metals, Wipes	SW 6020A	wipes	* see notes *	premoistened "Ghost Wipe"	n/a	28 days for Hg 180 days for metals	wipe 10x10 cm area
Methane/Light Gases	RSK 175	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	(Ref Lab) allow no headspace
Nitrate+Nitrite, Total	SM 4500NO3-F	DW/W	10 ml	1x60 ml Nalgene	H2SO4; chill recommended	28 days	
Nitrate+Nitrite, Total	SM 4500NO3-F	DW with PWSID	10 ml	1x60 ml Nalgene	H2SO4;2-6° C	28 days	
Nitrate	EPA 300.0/SW 9056A	DW/W	10 ml	1x60 ml Nalgene	0-6° C	48 hrs	
Nitrate	EPA 300.0/SW 9056A	DW with PWSID	10 ml	1x60 ml Nalgene	2-6° C	48 hrs	
Nitrate	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Nitrite	EPA 300.0/SW 9056A	DW/W	10 ml	1x60 ml Nalgene	0-6° C	48 hrs	
Nitrite	EPA 300.0/SW 9056A	DW with PWSID	10 ml	1x60 ml Nalgene	2-6° C	48 hrs	
Nitrite	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Odor	SM 2150B	DW	500 ml	1x1L amber glass	0-6° C	48 hrs	

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Odor	SM 2150B	DW with PWSID	50 ml	1x1L amber glass	2-6° C	48 hrs	
Oil & Grease, HEM	EPA 1664A	water	1 Liter	2x1L amber glass	HCl; 0-6° C	28 days	
Oil Burn Specs (OBS)	40 CFR 279.11 (PCBs, As, Cd, Cr, Pb, Total Halogens & Ignitability)	oil	60 ml	1x4 oz glass	none	n/s	
Ortho-Phosphate	SM4500P-E	water	10 ml	1x60 ml Nalgene	0-6° C	15 min/48 hrs	
PAH	EPA 525.2	DW	1 Liter	2x1 L amber glass	Sodium Sulfite; HCl; 0-6° C	14 days	(Ref Lab * verify cmpd list *)
PAH	EPA 525.2	DW with PWSID	1 Liter	2x1 L amber glass	Sodium Sulfite; HCl; 2-6° C	14 days	(Ref Lab * verify cmpd list *)
PAH	EPA 625M-SIM; SW 8270D-SIM	soil	22+12 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	
PAH	EPA 625M-SIM; SW 8270D-SIM	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
PCB Wipes	SW 8082A	wipes	* see notes *	1 gauze wipe w/ 4 oz glass (septa lid)	Hexane	n/s	wipe 10x10 cm area
PCBs	EPA 508	DW	1 Liter	2x1 L amber glass	Na2S2O3; 0-6° C	1 year (*)	(Ref Lab; can combo with Pest)
PCBs	EPA 508	DW with PWSID	1 Liter	2x1 L amber glass	Na2S2O3; 2-6° C	1 year (*)	(Ref Lab; can combo with Pest)
PCBs	EPA 608	water	1 Liter	2x1 L amber glass	0-6° C	1 year (*)	(Ref Lab; can combo with Pest)
PCBs	SW 8082A	oil	1 gram	1x20 ml scintillation vial	none	n/s	
PCBs	SW 8082A	soil	22+12 grams	1x4 oz glass	0-6° C	n/s	
PCBs	SW 8082A	water	1 Liter	2x1 L amber glass	0-6° C	n/s	
PCBs in Transformer Oil	SW 8082A	oil	1 gram	1x20 ml scintillation vial	none	n/s	
Percent Solids (Moisture Content)	SM 2540G (modified)	soil	12 grams	1x4 oz amber glass	0-6° C	14 days	
Pesticides	EPA 508	DW	1 Liter	2x1 L amber glass	Na2S2O3; 0-6° C	7/40 days (*)	(Ref Lab; can combo with PCBs)
Pesticides	EPA 508	DW with PWSID	1 Liter	2x1 L amber glass	Na2S2O3; 2-6° C	7/40 days (*)	(Ref Lab; can combo with PCBs)
Pesticides	EPA 608	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	(Ref Lab; can combo with PCBs)
Pesticides	SW 8270D-SIM	oil	1 gram	1x20 ml scintillation vial	none	n/s	
Pesticides	SW 8270D-SIM	soil	22+12 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	
Pesticides	SW 8270D-SIM	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
PFCs (Polyfluorochemicals)	PFOA/PFOS	water	1 Liter	1x1 L polycarbonate (special order)	0-6° C	14 days	(Ref Lab)
pH	SM 4500H-B	water	80 ml	1x250 ml Nalgene	0-6° C	15 minutes	should be field analyzed
pH Corrosivity	SW 9040C	liquid	20 ml	1x4 oz glass	none	ASAP	
pH Corrosivity	SW 9045D	solid	20 grams	1x4 oz glass	none	ASAP	
Phase II Inorganics	EPA 200.8; EPA 300.0	DW	25 ml for metals; 10 ml for anions	1x250 ml HDPE for metals; 1x60 ml Nalgene for anions	HNO3 for metals, unpreserved for fluoride; 0-6° C	6 months; 28 days	
Phase II Inorganics	EPA 200.8; EPA 300.0	DW with PWSID	25 ml for metals; 10 ml for anions	1x250 ml HDPE for metals; 1x60 ml Nalgene for anions	HNO3 for metals, unpreserved for fluoride; 2-6° C	6 months; 28 days	
Phase V Inorganics	EPA 200.8; SM 4500CN-C,E	DW	25 ml for metals; 2 ml for cyanide	1x250 ml HDPE for metals; 1x125 ml Nalgene for cyanide	HNO3 for metals, NaOH for CN; 0-6° C	6 months; 14 days	(dechlorinate before collecting for cyanide if applicable)
Phase V Inorganics	EPA 200.8; SM 4500CN-C,E	DW with PWSID	25 ml for metals; 2 ml for cyanide	1x250 ml HDPE for metals; 1x125 ml Nalgene for cyanide	HNO3 for metals, NaOH for CN; 2-6° C	6 months; 14 days	(dechlorinate before collecting for cyanide if applicable)
Phenols	EPA 420.1 or SW9065	water	1 x 500 ml HDPE	1 x 500 ml HDPE	H2SO4; 0-6° C	28 days	(Ref Lab)
Phosphorus, Total	SM4500P-B,E	water	25 ml	1x125 ml HDPE	H2SO4; 0-6° C	28 days	
PIWA (Private Individual Water Analysis)	SM 9223B, 2320B, 2510B, 2540C, 4500-H B, EPA 200.8, 300.0	water	100 ml for coli 20 ml for anions 25 ml for metals 200 ml for others	sterile 120 ml container for coli 60 ml Nalgene for NO2+NO3 1x120 mL Nalgene for metals 1x500 ml HDPE for other analyses	Na2S2O3 for coli; HNO3 for metals; H2SO4 for NOx; chill recommended	30 hrs for coli	
Radiological Test Bank (i.e., Gross Alpha, Radium 226/228, Uranium)	EPA 900 EPA 903.1/904 EPA 200.8	DW	8x1 Liter HDPE	8x1 L HDPE (Note: Collect 2x1-L each quarter, then composite at the end of the year.)	HNO3 (preserved at lab)	180 days	(Ref Lab)
Radium 226/228	EPA 903.1/904	water	2.5 Liter	3x1 L HDPE	HNO3 (preserved at lab)	6 months	(Ref Lab)
Radon in DW	EPA 913 or SM 7500	water	1x40 ml amber VOA vial	3x40 ml amber VOA with septa	0-6° C	72 hrs	(Ref Lab)
Reactivity: Reactive S &/or CN	SW 846 Chpt 7.3	soil	20 + 12 grams	1x4 oz glass; no headspace	none	ASAP	
Reactivity: Reactive S &/or CN	SW 846 Chpt 7.3	water	20 ml	1x4 oz glass; no headspace	none	ASAP	
Residual Chlorine, Free	SM 4500CL-F	water	20 ml	1x60 ml Nalgene	0-6° C	15 minutes	should be field analyzed
Residual Chlorine, Total	SM 4500CL-G	water	20 ml	1x60 ml Nalgene	0-6° C	15 minutes	should be field analyzed
Residual Range Organics (RRO)	AK103	oil	1 gram	1x20 ml scintillation vial	none	n/s	(can combo with DRO)
Residual Range Organics (RRO)	AK103	soil	30+12 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	(can combo with DRO)
Residual Range Organics (RRO)	AK103	water	1 Liter	2x1 L amber glass	HCl; 0-6° C	14/40 days (*)	(can combo with DRO)
Residue, Filterable (TDS)	SM 2540C	water	100 ml	1x125 mL HDPE	0-6° C	7 days	
Residue, Non-Filterable (TSS)	SM 2540D	water	1000 ml	1x1 L HDPE (entire volume required)	0-6° C	7 days	requires 1 full Liter
Residue, Settleable (SS or SM)	SM 2540F	water	1 Liter	1x1 L HDPE (entire volume required)	0-6° C	48 hrs	requires 1 full Liter

Parameter	Method	Matrix	Minimum Sample Size (not enough for batch QC)	Recommended Container/Size	Preservative	Hold Time *	Other Notes
Residue, Suspended Volatile (SVS)	SM 2540E	water	1 Liter	1x1 L HDPE (entire volume required)	0-6° C	7 days	requires 1 full Liter
Residue, Total (TS)	SM 2540B	water	100 ml	1x125 ml HDPE	0-6° C	7 days	
Residue, Total Volatile (TVS)	SM 2540E	water	100 ml	1x125 ml HDPE	0-6° C	7 days	
Resistivity	SM 2510B	water	80 ml	1x125 ml HDPE	0-6° C	28 days	
Salinity by Chloride	EPA 300.0	water	10 ml	1x60 ml Nalgene	0-6° C	28 days	
Secondary Inorganic Contaminants	EPA 200.8, 300, SM 4500H-B, 2120B, 2330B, 2150B, 2320B, 2540C, 5540C	DW	25 ml for metals; 100 ml for MBAS; 500 ml for odor; 200 ml for other analyses	1x250 mL HDPE for metals; 1x250 ml amber glass for MBAS; 1x1 L amber glass for odor; 1x1 L HDPE for other analyses	HNO3 for metals; none for others; 0-6° C	48 hrs for anions, pH, MBAS, odor, Alkalinity, etc.	(MBAS requires Ref Lab)
Secondary Inorganic Contaminants	EPA 200.8, 300, SM 4500H-B, 2120B, 2330B, 2150B, 2320B, 2540C, 5540C	DW with PWSID	25 ml for metals; 100 ml for MBAS; 500 ml for odor; 200 ml for other analyses	1x250 mL HDPE for metals; 1x250 ml amber glass for MBAS; 1x1 L amber glass for odor; 1x1 L HDPE for other analyses	HNO3 for metals; none for others; 2-6° C	48 hrs for anions, pH, MBAS, odor, Alkalinity, etc.	(MBAS requires Ref Lab)
Semivolatile Organic Cmpds (SVOC)	EPA 525.2	DW	1 Liter	2x1 L amber glass	Sodium Sulfite; HCl; 0-6° C	14/40 days (*)	(Ref Lab * verify cmpd list *)
Semivolatile Organic Cmpds (SVOC)	EPA 525.2	DW with PWSID	1 Liter	2x1 L amber glass	Sodium Sulfite; HCl; 2-6° C	14/40 days (*)	(Ref Lab * verify cmpd list *)
Semivolatile Organic Cmpds (SVOC)	EPA 625	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
Semivolatile Organic Cmpds (SVOC)	SW 8270D	soil	22+12 grams	1x4 oz amber glass	0-6° C	14/40 days (*)	
Semivolatile Organic Cmpds (SVOC)	SW 8270D	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
Settleable Matter (SS or SM): see Residue, Settleable							
Solids, Total (TS): see Residue, Total							
Solids, Volatile (VS): see Residue, Volatile							
Specific Gravity	Lab SOP	liquid	100 ml	1x125 ml amber glass	none	n/s	
SPLP ... (see TCLP methods)	SW 1312...						
Sulfate	EPA 300.0/SW 9056A	soil	10+12 grams	1x4 oz glass	0-6° C	28 days	
Sulfate	EPA 300.0/SW 9056A	water	10 ml	1x60 ml Nalgene	0-6° C	28 days	
Sulfide, Total	SM 4500S-D	water	25 ml	1x125 mL HDPE	NaOH+ZnAc; 0-6° C	7 days	
Sulfite	EPA 377.1	water	n/a	1x500 ml HDPE	5ml 2.5% EDTA	15 minutes	(Ref Lab)
Sulfolane	EPA 1625/SW8270D	soil	30+12 grams; key elements req MS/MSD or DUP	1x8 oz amber glass	0-6° C	14/40 days (*)	
Sulfolane	EPA 1625/SW8270D	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
Sulfur, Total	ASTM D 2622	oil	5 grams	1x120 ml amber glass	none	n/s	(Ref Lab)
Surfactants (MBAS)	SM 5540C	water	100 ml	1x250 mL amber glass	0-6° C	48 hrs	(Ref Lab)
Suspended Solids (SS or SM): see Residue, Settleable							
TAH	EPA 602 by 624/SW 8260B	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	allow no headspace
TAaH	EPA 625M-SIM; SW 8270D-SIM	water	1 Liter	2x1 L amber glass	0-6° C	7/40 days (*)	
Tannin/Lignin	HACH	water	1x250 ml	1x250 ml amber glass	0-6° C	28 days	(Ref Lab)
TCLP Herbicides	SW 1311/8151A	water	200+100 ml	1x1 L amber glass	none	14/7/40 days	(Ref Lab)
TCLP Herbicides	SW 1311/8151A	oil	1 gram	1x20 ml scintillation vial	none	14/7/40 days	(Ref Lab)
TCLP Herbicides	SW 1311/8151A	solid	100+100 grams	1x8 oz amber glass	none	14/7/40 days	(Ref Lab)
TCLP Metals	SW 1311/6000/7000	water	100+100 ml	1x500 mL or 1Liter HDPE	none	14/28 days (for Hg) 14/180 days	
TCLP Metals	SW 1311/6000/7000	oil	1 gram	1x20 ml scintillation vial	none	14/28 days (for Hg) 14/180 days	
TCLP Metals	SW 1311/6000/7000	solid	100+100 grams	1x8 oz amber glass	none	14/28 days (for Hg) 14/180 days	
TCLP Pesticides	SW 1311/8270D-SIM	water	200+100 ml	1x1 L amber glass	none	14/7/40 days	
TCLP Pesticides	SW 1311/8270D-SIM	oil	1 gram	1x20 ml scintillation vial	none	14/7/40 days	
TCLP Pesticides	SW 1311/8270D-SIM	solid	100+100 grams	1x8 oz amber glass	none	14/7/40 days	
TCLP Semivolatiles	SW 1311/8270D	water	200+100 ml	1x1 L amber glass	none	14/7/40 days	
TCLP Semivolatiles	SW 1311/8270D	oil	1 gram	1x20 ml scintillation vial	none	14/7/40 days	
TCLP Semivolatiles	SW 1311/8270D	solid	100+100 grams	1x8 oz amber glass	none	14/7/40 days	
TCLP Volatiles	SW 1311/8260C	water	40 ml	3x40 ml amber VOA vial w/ septa	none	14/14 days	
TCLP Volatiles	SW 1311/8260C	oil	1 gram	1x20 ml scintillation vial	none	14/14 days	
TCLP Volatiles	SW 1311/8260C	solid	25+100 grams	1x4 oz amber glass	none	14/14 days	
Thiocyanate	SM4500CN-M	water	10 ml	1x125ml HDPE	HNO3; 0-6° C	28 days	Clean aqueous matrix only
Total Dissolved Solids (TDS): see Residue, Filterable							
Total Halogens	SW 5050/9056A	oil	1 gram	1x60 ml amber glass	none	n/s	
Total Kjeldahl Nitrogen (TKN)	EPA 4500N-D	water	25 ml	1x125 mL HDPE	H2SO4; 0-6° C	28 days	
Total Nitrogen (see: NO2/NO3, TKN and Ammonia)							

Parameter	Method	Matrix	Minimum Sample Size (not enough for batch QC)	Recommended Container/Size	Preservative	Hold Time *	Other Notes
Total Organic Carbon (TOC)	TOC-SGS SOP	soil	1+12 grams	1x4 oz amber	0-6° C	28 days	HT extended if frozen
Total Organic Carbon (TOC)	SM 5310B/SW 9060A	water	30 ml	1x125 ml amber glass	HCl; 0-6° C	28 days	
Total Organic Halides (TOX)	SW 9020	soil	100 grams	1x4 oz amber	0-6° C	28 days	(Ref Lab)
Total Organic Halides (TOX)	SW 9020	water	40 ml	2x40 ml VOA or larger bottle	0-6° C	28 days	(Ref Lab)
Total Petroleum Hydrocarbons, HEM-SG	EPA 1664 SG	water	1 Liter	2x1 L amber glass	HCl; 0-6° C	28 days	
Total Solids: see Residue, Total							
Total Suspended Solids: see Residue, Non-Filterable							
Toxicity, SPP (for drilling mud)	40 CFR ...	solid	200-500 grams	1 Liter	0-6° C	90 days	(Ref Lab)
TPH by 8015B: See GRO or DRO							
Trihalomethane Formation Potential	SM 5710/EPA 551.1	DW/W	1 Liter	1 Liter	0-6° C	ASAP/14 days	(Ref Lab)
Trihalomethane Formation Potential	SM 5710/EPA 551.1	DW with PWSID	1 Liter	1 Liter	2-6° C	ASAP/14 days	(Ref Lab)
Trihalomethanes (TTHM)	EPA 524.2	DW/W	40 ml	3x40 ml amber VOA vials w/ septa	Ascorbic Acid/ HCl; 0-6° C	14 days	allow no headspace; TB required
Trihalomethanes (TTHM)	EPA 524.2	DW with PWSID	40 ml	3x40 ml amber VOA vials w/ septa	Ascorbic Acid/ HCl; 2-6° C	14 days	allow no headspace; TB required
Turbidity	SM 2130B	water	50 ml	1x60 ml Nalgene	0-6° C	48 hrs	
Turbidity	SM 2130B	DW with PWSID	50 ml	1x60 ml Nalgene	2-6° C	48 hrs	
Uranium, Total	EPA 200.8	DW	250 ml	1x250 ml HDPE	0-6° C	6 months	
Uranium, Total	EPA 200.8	DW with PWSID	250 ml	1x250 ml HDPE	2-6° C	6 months	
UV 254	SM 5910B	DW	100 ml	1x250 mL amber glass	0-6° C	48 hrs	(Ref Lab)
UV 254	SM 5910B	DW with PWSID	100 ml	1x250 mL amber glass	2-6° C	48 hrs	(Ref Lab)
VOC: Volatile Organic Compounds	EPA 524.2	DW	40 ml	3x40 ml amber VOA vials w/ septa	(Ascorbic Acid if chlorinated) HCl; 0-6° C	14 days	allow no headspace; TB required
VOC: Volatile Organic Compounds	EPA 524.2	DW with PWSID	40 ml	3x40 ml amber VOA vials w/ septa	(Ascorbic Acid if chlorinated) HCl; 2-6° C	14 days	allow no headspace; TB required
VOC: Volatile Organic Compounds	EPA 624	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	allow no headspace; TB required
VOC: Volatile Organic Compounds	SW 8260C	oil	1 gram	1x20 vial or 1x40 ml VOA w/ septa	0-6° C	14 days	allow no headspace
VOC: Volatile Organic Compounds	SW 8260C	soil	50 grams + separate unpreserved bottle for % solids determination	1x4 oz prewt'd amber (2nd 4 oz unpreserve % solids jar if no other analyses)	MeOH+BFB; 0-6° C	14 days	field-preservation required; use 50 g soil & 25 ml MeOH (can combo with BTEX) TB required
VOC: Volatile Organic Compounds	SW 8260C	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	allow no headspace; TB required
VOC: Volatile Organic Compounds Low Level (5035A FROZEN)	SW 8260C Low Level	soil	5 grams + separate unpreserved bottle for % solids determination	2x40 ml VOA w/ septa; 5-ml DI water & stir bar (also provide jars for medium level VOC and % solids)	freeze w/in 48 hrs: -7 to -20° C	14 days	field-preservation required; 5 g soil in 5 ml DI water & freeze on side immediately. TB required
VPH	NW-VPH	soil	50 grams + separate unpreserved bottle for % solids determination	1x4 oz prewt'd amber (2nd 4 oz unpreserve % solids jar if no other analyses)	MeOH+BFB; 0-6° C	14 days	(Ref Lab) TB required; field-preservation required; use 50 g soil & 25 ml MeOH
VPH	NW-VPH	water	40 ml	3x40 ml amber VOA vials w/ septa	HCl; 0-6° C	14 days	(Ref Lab) TB required; allow no headspace

* - Methods requiring semivolatile extraction by SW 3520/3550 have a hold time for extraction followed by a hold time for analysis of the extract.