



McC Campbell Analytical, Inc. - Analytical Capabilities - (01/01/19-12/31/19)

Drinking Water Chromatography

Method / Analysis	Description
505	OC Pesticides and PCBs by L-LE and GC-ECD
505	PCBs by L-LE and GC-ECD
505	PCBs by L-LE and GC-ECD (low level, 0.1 µg/L)
515.3	OC Acidic Herbicides by L-LE, Derivatization and GC-ECD
522	1,4-Dioxane by SPE and GC-MS; UCRM3
524.2	HVOCs by Purge and Trap and GC-MS
524.2	TTHMs (Total Trihalomethanes) by Purge and Trap and GC-MS
524.2	VOCs by Purge and Trap and GC-MS
524.2	VOCs by Purge and Trap and GC-MS, Open Scan (Up to 5 PEAKS, 10\$ ea. addl.)
524.3	EDB, DBCP and 1,2,3-TCP (0.005 µg/L) by GC-MS (SIM Mode)
524.3	TTHMs (Total Trihalomethanes) by Purge and Trap and GC-MS
524.3	VOCs by GC-MS; UCRM3
525.2	ON/P Pesticides by L-LE and GC-NPD
525.2	SVOCs by L-SE and GC-MS
531.1	Carbamates by HPLC w/ Derivatization
531.2	Carbamates by HPLC w/ Derivatization (regulated)
532m	Azoxystrobin, Fludioxonil and Penoxsulam
532m	Clopyralid and Imazapyr by SPE and HPLC
532m	Fenhexamide and Oxyfluorfen by SPE and HPLC
532	Phenyl Ureas by SPE and HPLC
532	Phenyl Ureas by SPE and HPLC (low level, 0.1 µg/L)
537	Perfluorinated Alkyl Acids by SPE and LC/MS/MS; UCRM3
539	Hormones by SPE and LC-ESI-MS/MS; UCRM3
547	Glyphosate by HPLC w/ Derivatization
548.1	Endothall by GC-MS
549.2	Diquat and Paraquat by LSE and HPLC
550.1m	Nonylphenol by SPE and HPLC
552.2	HAAs by LLE and GC-ECD
SM6040Dm	Geosmin and MIB (0.5 - 2.0 ng/L)

UCMR4

Method / Analysis	Description
200.8	UCMR4 Metals by MS (Germanium and Manganese)
525.3	UCMR4 SVOCs by GC-MS
530	UCMR4 SVOCs by GC-MS
541	UCMR4 Alcohols by GC-MS
544	UCMR4 Microcystins and Nodularin by LC-MS
545	UCMR4 Cylindrospermopsin and Anatoxin-a by LC-MS
546	UCMR4 ELISA Total Microcystins
552.3	UCMR4 Haloacetic Acid by GC-MS
300.1	Bromide by IC
5310B	Total Organic Carbon (TOC) SM5310 B





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Effluent Water Chromatography

Table with 2 columns: Method / Analysis, Description. Lists various analytical methods for effluent water, including pesticides, PCBs, PAHs, and VOCs.

Hazardous Waste, Soils, Groundwater Chromatography

Table with 2 columns: Method / Analysis, Description. Lists various analytical methods for hazardous waste, soils, and groundwater, including TPH, pesticides, and PCBs.





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8260B	VOCs by Purge and Trap and GC-MS excluding Acrolein and 2-CEVE
8260B	VOCs by Purge and Trap and GC-MS, Open Scan (\$15 per identified peak) addl.)
8270C	Phenols Only by GC-MS
8270C	PNAs / PAHs Only by GC-MS SIM Mode
8270C	ON/P Pesticides by GC-NPD. 8141 equivalent
8270C	SVOCs by GC-MS
8270C	SVOCs by GC-MS (low level; ESLs) *Clean Up fee included
8270C	SVOCs by GC-MS Open Scan (\$15 per identified peak)
8280A	2,3,7,8-TCDD by HRGC-HRMS, 5.0 pg/L Water Reporting Limit and 5.0 pg/g Soil RL
8280A	Full List Dioxins and Dibenzofurans by HRGC-HRMS
8290A	2,3,7,8-TCDD by HRGC-HRMS, 5.0 pg/L Water Reporting Limit and 5.0 pg/g Soil RL
8290A	Full List Dioxins and Dibenzofurans by HRGC/HRMS
8310	PNAs / PAHs by HPLC
8310m / SM 10200	Chlorophyll a abd b by HPLC
8315A	Carbonyls by HPLC
8315A	Formaldehyde by LCMS
8315A	Acrolein and 3-Hydroxypropanal by HPLC w/ Field Derivatization (SFEI 108)
8316	Acrylamide, Acrylonitrile and Acrolein by HPLC
8318	Carbamates by HPLC
8330m	Diflufenzuron and Propiconazole by HPLC
8330	Nitroaromatics and Nitramines by HPLC
8332	Nitroglycerin by HPLC

Metals

Groups / Analysis	Description
CAM17 (ICP-MS) - 200.8/ 6020	Ag, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
503 Metals (Biosolids) - 6020	As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn
IOC - DW Metals -200.7/ 200.8	Al, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Sb, Sn, Tl
PP13- 200.8/ 6020	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn
RCRA8- 200.8/ 6020	Ag, As, Ba, Cd, Cr, Hg, Pb, Se
LUFT5- 200.8/ 6020	Cd, Cr, Ni, Pb, Zn
ICP / ICP-MS, Common Metal	Ex, Al, Ag.; generally, special extraction cost is additional – see Extractions
ICP / ICP-MS, Uncommon Metal	Ex, Au, S, P.; generally, special extraction cost is additional – see Extractions
Hg by CVAF- 1631E	Hg, Low-Level
Hg by CVAA- 245.2/ 7470A/ 7471B	Hg
Ferrous Iron	SM 3500Fe B4c
Lead, organic, total	HML 939-M; CA Title 22, Chapter 11, Appendix 11 (unspeciated)

Solids

Method / Analysis	Description
Asbestos CARB 435	Asbestos 400 point count (.25% Reporting Limit) by CARB 435
Asbestos CARB 435	Asbestos 1000 point count (.1% Reporting Limit) by CARB 435





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FTIR for Plastics and Polymer ID	ASTM E1252-98; FTIR ID of plastics and polymers.
XRF for Used Oil	Total Chlorine by EPA 9075, XRF
XRD for Solids ID	Crystalline Solids ID using Powder, Micro-focus or High Angle XRD by USGS OFR 01-041
XRF on Solids Composition	Semi Quant XRF scan for gross element composition (Na-U)

Ion Chromatography

Method / Analysis	Description
218.6	Chromium VI by IC
218.6 – DISTLC, Solids	Chromium VI by IC using DISTLC
218.7 - UCRM3 DW	Chromium VI by IC; UCRM3
300.1 - UCRM3 DW	Chlorate by IC; UCRM3
300.1 / 300.0 –W, S	Common Anions: Cl-, Br-, SO4-2, F-, NO3- as N, NO2- as N, PO4-3 as P; CalTrans or DISTLC are optional soil extractions with extra charges
300.1 / 300.0-Water	Uncommon Inorganic Anions: I-, S2O3-2, SCN-, IO3-, SO3-2, etc.
300.1– Water, Disinf. ByP.	CIO2- (Chlorite), CIO3- (Chlorate), BrO3- (Bromate), Br- ( 0.005 µg/L)
300.1- W, S	Azide
300.1m –VFA	Volatile Fatty Acids: Formic Acid
314	Perchlorate (CIO4) by IC
7199	Chromium VI by IC; 3060A TTLC (low level, 0.2 mg/Kg)

Microbiology

Method / Analysis	Description
Aerobes	SM9215AC (SP)
Anaerobes	SM9215ABm (SP)
Coliforms, Total and E Coli (+/-)	SM9223 B (EST), Idexx Colilert
Coliforms, Total and E Coli (Enumeration)	SM9223 B (EST), Idexx Quanti Tray
Coliforms, Total and E Coli (Enumeration)(Soil)	SM9223 B (EST), Idexx Quanti Tray
Coliforms, Total and E Coli	SM9221 BF (MTF) for Drinking Water
Coliforms, Total and E Coli, Biosolids	SM9223 B (EST – Idexx Colilert); SM9221 B (MTF/MPN); for Sewage/Bio-Solids, 2-4 tray test
Coliforms, Total and E Coli and FC	SM9221BEF (MTF) for Drinking, Recreational and Waste Waters
Total Coliforms only	SM9222 B (MF) for Drinking, Recreational and Waste Waters
E Coli	9221BF (MTF)
Fecal Coliform (Soil)	SM9221E2C
Fecal Coliform	SM9221 E (MTF/MPN); SM9222 D (MF)
Fecal Coliform (+/-)	SM9221 E (MTF/MPN)
Enterococci	Idexx Enterolert (EST)
Enterococci	SM9230 B (MTF/MPN)
Fecal Streptococci	SM9230 B (MTF/MPN)
Fungi, Mold, Yeast	SM9610B
Heterotrophs (HPC)	Idexx Simplate; SM9215 AC (SP); SM9215 AB (PP) (for Drinking and Natural Waters, 1-2 tray test)
Heterotrophs (HPC), Biosolids	Idexx Simplate; SM9215 C (Spread Plate); SM9215 B (Pour Plate) (for Sewage and Bio-Solids, 2-4 tray test)





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Inhibitory Residue	SM9020B
Iron Related Bacteria (+/-)	SM9240D.1 (BART = Biological Activity Reaction Test)
Iron Related Bacteria	SM9240D.1 (BART = Biological Activity Reaction Test)
Legionella (+/- or En)	CDC Legiolert Method 01/2005-SM9260J (MF-PP)
Microbiologically Influenced Corrosion	Microbiologically Influenced Corrosion (MIC) Sample Kit not Included
Pseudomonas aeruginosa	Pseudolert (EST)
Salmonella (+/-)	SM9260B - E1682 (Plate) FDA BAM
Salmonella	SM9260B - E1682 (Plate) FDA BAM
Staphylococcus aureus	SM9213B - FDA BAM
Sulfate Reducing Bacteria	SM9240D - SM9240D.4a1
Water Suitability	SM9020B
<i>Please note some bacteria analysis may be subject to a weekend surcharge; please contact our facility to confirm prior to sample submission.</i>	

GC-MS-MS, LC-IT, LC-MS-MS Analysis

Method / Analysis	Description
ASTM D7485	LC-MS-MS for Alkylphenols in Water
ASTM D7574	LC-MS-MS for BisPhenol A (BPA) in Water
LC-MS-MS	E 6850 for Perchlorate in Water and Soil by LC-MS-MS, See Anions, E6850
LC-MS-MS	E 1694m for Thiourea in Waste Water
LC-IT or LC-MS-MS	E 1694 or E536m for Selected N/P Pesticides
ASTM D7485	LC-MS-MS for Alkylphenols in Water
ASTM D7574	LC-MS-MS for BisPhenol A (BPA) in Water
LC-MS-MS	E 6850 for Perchlorate in Water and Soil by LC-MS-MS, See Anions, E6850
LC-MS-MS	E 1694m for Thiourea in Waste Water
LC-IT or LC-MS-MS	E 1694 or E536m for Selected N/P Pesticides

McC Campbell Proprietary Methods

Method / Analysis	Description
Acrylamide	Acrylamide by LCMS
Alcohols	Alcohols by Derivatization and HPLC
Amines	Amines and Protonatable Nitrogenous Compounds by Aqueous Injection
Amines	Amines and Protonatable Nitrogenous Compounds by LCMS
Amygdalin	Amygdalin by LCMS
Cyclohexylamine	Cyclohexylamine by LCMS
DEHPA	Bis(2-ethylhexyl) Phosphoric Acid
Epichlorohydrin	Epichlorohydrin by Derivatization and HPLC
EthyleneGlycol	Ethylene Glycol by Derivatization and HPLC
Fluoridone	Fluoridone by HPLC
Flumioxazin	Flumioxazin by LCMS
Imazamox	Imazamox by Derivatization and HPLC
Isobornyl Acrylate	Isobornyl Acrylate by LCMS
Mesotrione	Mesotrione by LCMS
Monoethanolamine	Monoethanolamine by HPLC
Tributyl phosphate	Tributyl phosphate by LCMS
Organic Acids	Various Organic Acids by HPLC-UV
Organic Lead, speciated	Tetramethyl and Tetraethyl Lead by GC (0.005 mg/Kg soil / 125 ppt water Reporting Limit)





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Organic Tin, speciated	Mono-, Di-, Tri- and Tetra-Butyl Tin by GC-MS
Isobornyl Acrylate	Isobornyl Acrylate by LCMS
Mesotrione	Mesotrione by LCMS
Tributyl phosphate	Tributyl phosphate by LCMS
Organic Acids	Various Organic Acids by HPLC-UV
Organic Lead, speciated	Tetramethyl and Tetraethyl Lead by GC (0.005 mg/Kg soil / 125 ppt water Reporting Limit)
Organic Tin, speciated	Mono-, Di-, Tri- and Tetra-Butyl Tin by GC-MS
UV254	SM5910 B
UV Scan	MAI Full Spectrum Scan
<i>Please note MAI's Proprietary Methods are subject to availability; please contact our facility to confirm prior to sample submission.</i>	

Wet Chemistry and Oil and Grease

Method / Analysis	Description
TRPH by IR Spectrometry w/ S.G. Clean Up	418.1, Total Recoverable Petroleum Hydrocarbon by IR w/ Silica Gel Clean Up
Total Oil and Grease ± S.G.	9071B, Total Oil and Grease ± Silica Gel Clean Up
HEM, Oil and Grease ± S.G.	1664A, HEM, Oil and Grease ± Silica Gel Clean Up
Acidity	SM2310 B
AGP, ANP, NNP	EPA 600/2-78-054, Acid Generating Potential, Acid Neutralizing Potential, Net Neutralization Potential
Alkalinity, total, speciated	SM2320 B / 310.1
Ammonia as N, Colorimetry	350.1 or 350.3 / SM4500-NH3 BG
Ammonia as N, unionized (free)	351.2 / SM4500-NH3 BG (includes pH and T)
Ammonium	E350.1 / E350.1m
Ash (%)	Percent ash by ASTM D2974
BOD / cBOD	SM5210 B; Biochemical Oxygen Demand, carbonaceous BOD, 5 Day Test
B S and W, approximate	ASTM D 1796-97m; Bottom Sediments and Water as Approximate Vol. Phase Proportions
Carbon, DOC	415.3 / SM5310 B; Dissolved Organic Carbon
Carbon, IC	415.3 / SM5310 B; Inorganic Carbon (= Σ CO2,aq + HCO3- + CO3-2)
Carbon, TC	415.3 / SM5310 B / 9060A; Total Carbon
Carbon, TOC	415.3 / SM5310 B / 9060A; Total Organic Carbon
Carbon dioxide, aq, free	SM5310 B or 415.3; + pH + SM4500-CO2 D calc. at 25oC
Chloride, potentiometric	SM4500-Cl- D / Metrohm 130/3e (only for matrices not amenable to IC)
Chlorine, residual / total	SM4500-Cl E / 330.2 Titrimetric / SM4500G (Free and Total Cl)
Chlorine, specific form (Chloramine)	SM4500-Cl G DPD Colorimetric
Chlorine as Sodium Hypochlorite	SM4500-Cl E
COD	410.4 / SM5220 D; Chemical Oxygen Demand
Color, Apparent	SM2120 B / E110.2 for DW or WW / Apparent / Non-filtered
Color, True	SM2120 B / E110.2 for DW or WW True / Filtered
Conductivity	Conductivity, Resistivity and Salinity 120.1 / 9050A / SM2510 B, ASTM D1125A, SSSA
Corrosivity	pH, corrosivity = pH >2 and pH <12.5, included in RCI
Cyanide, Amenable	9012A / SM 4500-CN G; includes Total Cyanide results
Cyanide, Free	SM9016 using micro diffusion cell
Cyanide, Total, Auto Distillation	Kelada-01 / 335.4 / 9012A / SM4500-CN- CE





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Cyanide, Amenable Manual Distillation	9012A, Amenable Base Extractable; includes Total Cyanide results
Cyanide, Total Manual Distillation	335.4 / 9012A, Total Base Extractable
Cyanide, WAD	Kelada-01 / SM4500-CN- CE; Buffered Weak Acid Dissociable Cyanides
Density	ASTM D1475, ASTM D2397m
Dissolved O2	360.1 / SM 4500-O G
Flashpoint of Liquids	SW1010, included in RCI (Liquid/Oil/Water)
Fluoride by ISE	E340.2 / SM4500-F- C
Foaming Agents (surfactants), anionic	SM5540 C / 425.1; MBAS / Anionic Surfactants
Foaming Agents (surfactants), non-ionic	SM5540 BD; CTAS / Non-ionic Surfactants
Freezing / Melting Point	MAI, Freezing Point of Liquids / Melting Point of Solids
Hardness	SM2340 B and 200.7 by ICP / ICPMS
Hardness by Titration	SM2340 C by Titration
Hydrogen Peroxide	USP Titanium Oxylate Spectrophotometric method
Ignitability of Solids	SW1030, included in RCI
Moisture Content of Soils	ASTM D2216-05, ASTM D2974, for organic matter and ash determinations
Nitrate + Nitrate by Cd reduction	353.2 / SM4500NO3 E; NO3 +/- NO2 by Cd reduction
Nitrogen, Organic	351.2 + 350.1 / SM4500-Norg AD + SM4500-NH3 FG; Organic Nitrogen as N (= TKN - Ammonia)
Nitrogen, TKN	351.2 ;TKN = Total Kjeldahl Nitrogen as N
Nitrogen, total (TOC)	415.3m / 9060Am; Total Nitrogen by combustion and Chemiluminescence / TCD
Odor	140.1 / SM2150 B
Odor with Dechlorination	140.1 / SM2150 B + SM4500-CI DE
Organic Matter	Percent Organic Matter by ASTM D2974
ORP	SM2580 B, Oxidation-Reduction Potential
Ozone	SM4500 O3 B
Paint Filter Test	SW9095A
pH	150.1 / 9045BandC / 9045CandD / SM4500H+ B, ASTM D4972-13a, CT643-2007
pH, field	SM4500H+ B, onsite pH measurement
Phenolics, Total	420.4 / 420.1
Phosphorous, Dissolved	365.1, 365.3, Dissolved Phosphorous as P
Phosphorous, Hydrolyzable	365.1, 365.3, Hydrolyzable Phosphorous as P
Phosphorous, Organic	365.1, 365.3, / SM4500-P BEF; Organic (Total - Ortho - Hydrolyzable ) Phosphorous as P
Phosphorous, Ortho	365.1, 365.3 365.5; SM4500-P BEF / Ortho Phosphorous as P (used when IC is inapplicable)
Phosphorous, Total	365.1, 365.3, / SM4500-P BEF; Total Phosphorous as P
Reactive Cyanide	SW9010, included in RCI, Positive or Negative
Reactive Sulfide	SW9030, included in RCI, Positive or Negative
Salinity	SM2520, Salinity by conductivity
Silica, Reactive	SM4500-SiO2 D
Solids, Total (TS)	SM2540B for Liquids, see Moisture for Solids
Solids, Dissolved (TDS)	SM2540C, Total Dissolved Solids
Solids, Suspended (TSS)	SM2540D, Total Suspended Solids
Solids, Total Volatile or Fixed (TVS, TFS)	SM2540E, SM2540G for Solids
Solids, Total Volatile or Fixed Dissolved	SM2540E, SM2540G for Solids (TVDS, TFDS)







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Solids, Volatile or Fixed(Suspended)	SM2540E, SM2540G for Solids (TVSS, TFSS)
Solids, Settleable (SS)	SM2540F, E160.5
Specific Gravity	ASTM D1475, ASTM D2397m
Sulfide, aqueous	SM4500-S-2 D / 376.2 /; SM4500-S-2 F; SM4500-S-2 I / distilled
Sulfide, solids	SM4500-S-2 D and 9030B; Acid Soluble or Acid Insoluble Sulfides
Sulfite by Titration	SM4500-SO3-2 B
Sulfur, Total	415.3m / 9060Am; Total Sulfur by combustion and TCD (ICP-MS rec. for aqueous)
Tannin and Lignin	SM5550 B
Turbidity	180.1 / SM2130 B
UV254	SM5910 B
UV Scan	MAI Full Spectrum Scan
Water Content	Karl Fischer, SW9000, Water Content of Liquids
Vapor Pressure, Reid	ASTM D323, BAAQMD 28 (Requires Storage Temperature)
VCC of Coatings	EPA D24, ASTM D2369
VCC of Powder Coatings	SCAQMD 316C Draft
Visual Estimate of Particle Size	ASTM E112-13; for granular matrices
VVC of Electrical Varnish	ASTM D6053

Air Testing

Method/ Analysis	Description
Air Sampling Pump Rentals	Low (0.05 - 0.2L/min) or high (1-5 L/min) flow
Alcohols	NIOSH 1403 / 2000m by HPLC-FLD (Sorbent Tube)
Formaldehyde	NIOSH 2016 by HPLC (FST)
Helium	ASTM D 1946-90 (Tedlar or summa, summa can extra if not part of TO-15)
Helium Leak Check	TO-15 Helium Leak Check
Helium Shroud	Helium Shroud Rental
Hexachrome, Particulates	NIOSH 7605 by IC-Colorimetry (Filter)
Hydrocarbons, Light	ASTM D 1946-90 / EPA 3C by GC- FID (methane, ethane, ethene, actetylene) (Tedlar / Summa; Summa same price as Tedlar if TO-15 requested)
Hydrogen	ASTM D 1946-90 / EPA 3C by GC-PDD (H2) (Tedlar, Summa)
LEED Gases - Indoor	VOCs + Formaldehyde + 4-PCH + CO from summa
Light Gases, Atmospheric	ASTM D 1946-90 / EPA 3C by GC-PDD / TCD (O2, N2, CO, CO2,) (Tedlar / Summa; Summa same price as Tedlar if TO-15 requested)
Light Gases, Atmospheric + Hydrocarbons	ASTM D 1946-90 / EPA 3C by GC-PDD / TCD / FID (O2, N2, CO, CO2, methane, ethane, ethane, actetylene) (Tedlar, Summa)
Metals, Particulates	NIOH 7303 by ICP-MS (Filter)
OC and ON Herbicides	NIOSH 5602 (Sorbent Tube, pricing includes tubes)
OP Pesticides	NIOSH 5600 (Sorbent Tube, pricing includes tubes)
Organic Lead	NIOSH 2534m (Tetramethyl and Tetraethyl Lead) by GC (ST, pricing includes tubes)
Particulates, Respirable	NIOSH 0600
Particulates, Total	NIOSH 0500
PCBs	NIOSH 5503 by GC-ECD (Sorbent Tube)
Phenols	NIOSH 2546 by GC-MS SIM mode (Sorbent Tube,)
PNAs	NIOSH 5506 by HPLC UV-FLD (Sorbent Tube)
Silica	NIOSH 7602, Crystalline Silica by IR (Bulk pricing available)
TO17 VOCs	TO-17, Soil gas by GC_MS (Sorbent Tube)
TPH (g/d)	NIOSH 1550 by GC-FID (Sorbent Tube)







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TPH (gas/diesel)	TO-17m (Sorbent Tube) TPH gas and Diesel
TPH(g) Fractionated	MA DEP APH by GC-MS (Summa); ali-aro frac. of vapor phase TPH
VOCs +- TPH(gas) soil gas	TO-15, soil gas by GC-MS (Summa)
VOCs +- TPH(gas) soil gas	TO-15, soil gas by GC-MS (Tedlar)
VOCs +- TPH(diesel) soil gas	TO-17, soil gas by GC-MS (ST)
VOCs, IPA only	TO-15, IPA only for soil gas from Tedlar by GC-MS; Client / Lab supplied Tedlar
VOCs, SCAN-SIM, indoor air	TO-15, indoor air by GC-MS, Reporting Limit = 0.1ppbv (Summa), SIM mode for TO-15 compounds having ESL indoor air limits < 0.1 ppbv
<p>*Use of canisters beyond 15 days could increase the risk of having unacceptable initial vacuum at the start of sampling.          *MAI does not guarantee canister vacuum beyond 15 days.          *Failure to return media within 30 days of receipt will result in invoicing of the replacement cost of all outstanding media.          *MAI will charge a cleaning/rental fee of \$56.00 per sample set when equipment is returned to us unused.</p>	

**Aquatic Toxicology**

Test Method	Test Organism	Description
Hazardous Waste Bioassay (CDFG 1988)	Fathead Minnow ( <i>Pimephales promelas</i> )	CA Title 22 Hazardous Waste 96h LC50 Screen
		CA Title 22 Hazardous Waste 96h LC50 Definitive
EPA 2000.0	Fathead Minnow ( <i>Pimephales promelas</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal
EPA 2019.0	Rainbow Trout ( <i>Oncorhynchus mykiss</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal
EPA 2004.0	Sheepshead Minnow ( <i>Cyprinodon variegatus</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
EPA 2002.0	<i>Ceriodaphnia dubia</i>	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal
		Acute 48hr Static Renewal Dilution Series with Daily Renewal
EPA 2021.0	<i>Daphnia spp.</i> ( <i>Daphnia magna</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal
		Acute 48hr Static Renewal Dilution Series with Daily Renewal
EPA 2006.0	Inland Silverside ( <i>Menidia beryllina</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal
EPA 2007.0	Mysid shrimp ( <i>Americamysis bahia</i> )	Acute 96hr Static Non-Renewal 100% Concentration Only
		Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal
		Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals
		Acute 96hr Static Renewal Dilution Series with a 48hr Renewal





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EPA 1003.0 / ASTM E1218-04	Green Algae ( <i>Selenastrum Capricornutum</i> )	Chronic 96hr Algal Growth Test - 100% Concentration Only
		Chronic 96hr Algal Growth Test - Dilution Series
		Chronic 96hr Algal Growth Test - Reference Toxicant Test
EPA 1002.0	<i>Ceriodaphnia dubia</i>	Chronic 3-brood Survival and Reproduction Test - 100% Concentration Only
		Chronic 3-brood Survival and Reproduction Test - Dilution Series
		Chronic 3-brood Survival and Reproduction Test - Reference Toxicant Test
EPA 1000.0	Fathead Minnow ( <i>Pimephales promelas</i> )	Chronic 7-day Survival and Growth Test - 100% Concentration Only
		Chronic 7-day Survival and Growth Test - Dilution Series
		Chronic 7-day Survival and Growth Test - Reference Toxicant Test
EPA 1004.0	Sheepshead Minnow ( <i>Cyprinodon variegatus</i> )	Chronic 7-day Survival and Growth Test - 100% Concentration Only
		Chronic 7-day Survival and Growth Test - Dilution Series
		Chronic 7-day Survival and Growth Test - Reference Toxicant Test
EPA 1006.0	Inland Silverside ( <i>Menidia beryllina</i> )	Chronic 7-day Survival and Growth Test - 100% Concentration Only
		Chronic 7-day Survival and Growth Test - Dilution Series
		Chronic 7-day Survival and Growth Test - Reference Toxicant Test
EPA 1007.0	Mysid shrimp ( <i>Americamysis bahia</i> )	Chronic 7-day Survival and Growth Test - 100% Concentration Only
		Chronic 7-day Survival and Growth Test - Dilution Series
		Chronic 7-day Survival and Growth Test - Reference Toxicant Test
EPA 600/R-95/136	Mussels ( <i>Mytilus spp.</i> )	Chronic Embryo-Larval Development and Survival Test - 100% Concentration Only
		Chronic Embryo-Larval Development and Survival Test - Dilution Series
		Chronic Embryo-Larval Development and Survival Test - Reference Toxicant Test

**Extractions Preparations**

<b>Method / Analysis</b>	<b>Description</b>
Alumina Bench Column Clean Up (EPA 3630C)	Bench Column Clean Up of solvent extracts, cost depends on complexity
Ashing - food	Thermal combustion preparation for food matrices
Ashing - soils/solids	Thermal combustion preparation for metals or oxide determinations
ASTM C 1580-05	DI Extraction of Soils for Sulfate
Bench Testing / Pilot Studies	Customized bench studies to evaluate pilot processes
Cal Trans 417 / 422	DI Extraction for anions in soil (DI STLC may yield higher values)
CEC, NH4Ac	EPA 9080; Cation Exchange Capacity inapplicable to calcareous soils
CEC, NaAc	EPA 9081; Cation Exchange Capacity that is generally applicable
Copper Clean Up	Copper Clean Up to Remove Sulfur
ESL Clean Up 8081/8082	ESL Clean-up for method 8081/ 8082
Ex. Cations, NH4Ac	Exchangeable Cations using ammonium acetate
Filtration	In-house (laboratory) filtration for dissolved metals using 0.45 um filter
Florisil Clean Up (EPA 3630C)	Bench Column Clean Up of solvent extracts
GPC Clean-up, EPA 3640A	Gel Permeation Clean Up
ISM - ITRC	Incremental Sampling Method per the Interstate Technology and Regulatory Council (ITRC)
Metals Dissolution	Concentrated oxidizing acids dissolution of solid metals
MS/MSD Project specific	Project specific MS/MSDs
Silica Gel Clean Up, in-a-vial style	Silica Gel Clean Up of solvent extracts, in-a-vial style





McC Campbell Analytical, Inc. - Analytical Capabilities - (01/01/19-12/31/19)

Silica Gel Bench Column Clean Up	Silica Gel Bench Column Clean Up of solvent extracts (EPA 3630C)
STLC	California WET Test
DI STLC	California WET Test modified to use DI water
ZHE STLC	Zero Head Space California WET Test for Volatiles
Whole Rock Dissolution	Fusion of rock / alumino-silicate solids
Zemo Diss. HCs ± SG c.u.	Dawn Zemo Methodology for Dissolved HCs ± SG cleanup
TCLP EPA 1311	TCLP; Toxic Characteristic Leaching Procedure
ZHE TCLP EPA 1311	Zero Head Space TCLP for Volatiles
SPLP EPA 1312	SPLP; Synthetic Precipitation Leaching Procedure
EPA 3050B Large Volume	Large volume (70g initial sample weight)
*Clean ups and extractions fees are not subject to rush surcharge rates.	
*Clean ups and extractions may extend the TAT.	

Miscellaneous

Method / Analysis	Description
Air Sampling Pump Rental	Low (0.05 - 0.2L/min) or high (1-5 L/min) flow
Chromatogram Fee	Chromatograms PDF
Compositing	Sample compositing (up to 4:1 free)
Courier – exclusive service	Courier for emergency/urgent picks and/or deliveries
EDF Reporting Fee	CA AB 2886;GeoTracker
EDD Reporting Fee	WriteOn, EQUIS, CIWQS, SMARTs, Locus XML, etc.
EPA 5035 EnCore sampler	5g EnCore sampler
Filters and Syringes	One syringe and three 0.45 micron filters for field filtering
Open Scan Fee	The five most significant unidentified peaks in GC-MS chromatogram
Helium Shroud	Helium Shroud Rental
Passive Diffusion Bag (PDB)	PDB filled with DI water
PM10 Monitor	PDR-1000AN Data Logger for continuous PM10 monitoring
Pulverization Fee	Pulverization of solid matrices
Report Reprocessing Fee	Report reprocessing Fee – Price is subject to change
Sample Disposal Fee	Sample Disposal fee
Sample Hold Fee	Short term hold fee (can be refunded if samples are analyzed / per sample)
Sample Storage Fee	For samples stored longer than 60 days (price is per sample/ per month)
Sampling Tube	Stainless steel sampling tube
Sorbent Tube	Single use Sorbent Tube
Tedlar bag	Tedlar air sampling bag
Unused Summa	Cleaning Fee - Unused Summa Canister
*Client is responsible for returning all media in the same condition as when received from MAI. Damaged, (including dented canisters), or unreturned media will be charged to the client as outlined in media agreement. Dented canisters have suspected active surfaces and cannot be used for most air sampling applications; MAI will charge replacement cost. No disassembly of soil gas or indoor air manifolds is permitted.	
<b>RUSH SURCHARGES are as follows:</b>	
MAI offers Same-Day, 1-Day, 2-Day, 3-Day, 4-Day TAT at 150%, 100%, 50%, 25%, 10% markups from standard TAT, respectively on most analyses. All rush TATs must be arranged in advance of sample submission. Our Sample Reception department is open Monday through Friday; 8:00AM- 9:00PM. Please contact our Sales and Marketing team at <a href="mailto:Sales@mcccampbell.com">Sales@mcccampbell.com</a>	

