



Eurofins Calscience, Inc. is an industry leader within the environmental laboratory testing community and for over 10 years has consistently ranked in the top 20 environmental laboratories in the U.S. We offer a comprehensive portfolio of analytical methods and our analytical expertise encompasses all environmental matrices including, air, groundwater, sea water, sediment, soil, wastewater and tissue.

Catalog of Services

Southern California - Main Laboratory

7440 Lincoln Way
Garden Grove, California 92841-1427
714-895-5494

VOC & Air Testing Laboratory

7445 Lampson Ave
Garden Grove, CA 92841-2903

Marine Chemistry Laboratory

11380 Knott Street
Garden Grove, CA 92841-1400

Northern California – Service Center

5063 Commercial Circle, Suite H
Concord, CA 94520-8577
925-689-9022

The difference is service

Soil & Water

ORGANICS

ANALYSIS

1,2,3-Trichloropropane - Low Level

1,4-Dioxane - Low Level

1,4-Dioxane (Isotope Dilution) - Low Level

Dissolved Gases – Carbon Dioxide in water

Dissolved Gases - Methane in water

Dissolved Gases - Methane, Ethane & Ethene in water

Explosives - Nitroaromatics and Nitramines

Fumigants (EDB, DBCP) by GC/ECD

Herbicides, Chlorinated

N-Nitrosodimethylamine (NDMA) - Low Level

Non-Halogenated Organics (2-Butanol, Ethanol, Isobutanol, Isopropanol, Methanol, n-Butanol)

Non-Halogenated Organics (Ethanol and/or Methanol)

Organochlorine Pesticides

Organochlorine Pesticides - Extended Target List

Organochlorine Pesticides and PCBs

Organochlorine Pesticides – Low-Level

Organophosphorus Pesticides

Organophosphorus Pesticides - Extended Target List

Organotin (Dibutyltin, Monobutyltin, Tetrabutyltin, Tributyltin)

Organotin – Tributyltin only

PAHs - Low Level by Selective Ion Monitoring (SIM)

PAHs - Low Level by HPLC

PCB Congeners (Eurofins Calscience list of 41 Congeners)

PCB Congeners - Extended Target List

Polychlorinated Biphenyls (PCBs - Aroclors)

Semivolatile Organic Compounds (SVOCs)

SVOCs - Extended SIM List

SVOCs Appendix II or IX Target List (3 sample minimum)

SVOCs Tentatively Identified Compounds (TICs) add-on to 8270C/D

Volatile Organic Compounds (VOCs)

VOCs plus Fuel Oxygenates (MTBE, TBA, DIPE, ETBE, TAME, Ethanol)

VOCs - Appendix II or IX Target List

VOCs - Low Level 20 ml Purge (water)

VOCs - Tentatively Identified Compounds (TICs) add-on to 8260B/C

Volatile Organic Compounds

Volatile Fatty Acids (Acetic, Butyric, Lactic, Propionic, Pyruvic)

METHOD

SRL 524M-TCP

8260B SIM

EPA 8270C/D SIM

RSK 175(M)

RSK 175(M)

RSK 175(M)

EPA 8330

EPA 504.1

EPA 8151A

EPA 1625C(M)

EPA 8015B/D

EPA 8015B/D

EPA 8081A/B or 608

EPA 8081A/B

EPA 608

EPA 608

EPA 8141A/B

EPA 8141A/B

Krone et al. (GC/MS)

Krone et al. (GC/MS)

EPA 8270C/D SIM

EPA 8310 or 610

EPA 8270C/D SIM

EPA 8270C/D SIM

EPA 8082/8082A or 608

EPA 8270C/D or 625

EPA 8270C/D or 625 SIM

EPA 8270C/D

EPA 8270C/D

EPA 8260B/C or 624

EPA 8260B/C

EPA 8260B/C

EPA 8260B/C

EPA 8260B/C

EPA 524.2

HPLC/UV

UNDERGROUND FUEL TANK

ANALYSIS

BTEX and/or MTBE

BTEX and Fuel Oxygenates

BTEX and/or MTBE

Fuel Oxygenates (MTBE, TBA, DIPE, ETBE, TAME, Ethanol)

Methanol and/or Ethanol

Naphthalene

Naphthalene

NWTPH (TPH as Diesel/Motor Oil)

NWTPH (Volatile Petroleum Products)

Organic Lead (includes sample preparation)

PAHs – Low Level by Selective Ion Monitoring (SIM)

Total Petroleum Hydrocarbons (TPH) – Diesel/Diesel Range Organic (DRO)

Total Purgeable Petroleum Hydrocarbons (TPPH) add-on to 8260B/C

Total Recoverable Petroleum Hydrocarbons (TRPH)

TPH – Extractable (GRO/DRO/ORO)

TPH – Extractable with Carbon Chain Breakdown (C6-C36)

TPH – Extractable with Carbon Chain Breakdown (C6-C44)

TPH – Gas/Gasoline Range Organics (GRO)

TPH – Gas/GRO & BTEX

TPH – Oil Range Organics (ORO)

TPH – Purge & Trap (C6-C12)

TPH –Specified Standard

Volatile Organic Compounds (VOCs) plus Fuel Oxygenates

METHOD

EPA 8260B/C

EPA 8260B/C

EPA 8021B

EPA 8260B/C

EPA 8015B/D

EPA 8260B/C

EPA 8270C/D

NWTPH – Dx

NWTPH – Gx

CA DHS LUFT

EPA 8270C/D SIM

EPA 8015B/D(M)

EPA 8260B/C

EPA 418.1/418.1(M)

EPA 8015B/D(M)

EPA 8015B/D(M)

EPA 8015B/D(M)

EPA 8015B/D(M)

EPA 8015B/D(M) & 8021B

EPA 8015B/D(M)

EPA 8015B/D(M)

EPA 8015B/D(M)

EPA 8260B/C

HAZARDOUS WASTE

ANALYSIS

Ignitability (Flashpoint)

Ignitability (Soil/Solids)

Corrosivity (as pH) (15 minute Hold Time)

Paint Filter Liquids Test

Reactivity

Cyanide

Sulfide

Cyanide and Sulfide

Toxicity – Sample Preparation

TTLIC Sample Digestion for Metals (excludes Hg and Cr VI)

TCLP/SPLP (Volatile) ZHE Extraction

STLC/TCLP/SPLP(Semi/Non-Volatile) Bottle Extraction

Toxicity – Sample Analysis

CA Title 22 - CAM 17 Metals: [Sb](#), [As](#), [Ba](#), [Be](#), [Cd](#), [Cr\(t\)](#), [Co](#), [Cu](#), [Pb](#), [Hg](#), [Mo](#), [Ni](#), [Se](#), [Ag](#), [Tl](#), [V](#), [Zn](#)

Organic Lead (includes sample preparation)

Individual Metals by ICP

Mercury

Chromium VI (24 hour Hold Time for waters, includes sample preparation)

Fluoride

Dioxin (TCDD only, subcontracted)

Herbicides, Chlorinated

Organochlorine Pesticides

Polychlorinated Biphenyls (PCBs - Aroclors)

Semivolatile Organic Compounds

Volatile Organic Compounds

TCLP Metals (8) : [As](#), [Ba](#), [Cd](#), [Cr\(t\)](#), [Pb](#), [Hg](#), [Se](#), [Ag](#)

TCLP Full List (includes TCLP leaching procedures and TCLP target lists for the following methods: 6010B/C, 7470A, 8081A/B, 8082/A, 8151A, 8260B/C, & 8270C/D)

96-hour Acute Aquatic Toxicity

METHOD

EPA 1010

EPA 1030

EPA 9045D

EPA 9095A

SW 846 Chapter 7

SW 846 Chapter 7

SW 846 Chapter 7

EPA 3050B

EPA 1311/1312

CAC Title 22/EPA 1311/1312

EPA 6010B/

7470A or 7471A

DHS LUFT

EPA 6010B/C

EPA 7470A/7471A

EPA 7196A

SM 4500 F C

EPA 8280A/8290A

EPA 8151A

EPA 8081A/B

EPA 8082/8082A

EPA 8270C/D

EPA 8260B/C

EPA 6010B/C & 7470A

Various

California Dept. of Fish and Game

CLEANUPS

CLEANUP

Acid-Base Partition
 Alumina Cleanup
 CA LUFT Manual centrifugation/gravity separation for extractable fuel products in aqueous matrix.
 ENVI-Carb/PSA
 Florisil Column
 Gel Permeation Chromatography (GPC)
 Silica Gel Cleanup (extract shake-out)
 Silica Gel Cleanup (1-2 gram column)
 Silica Gel Cleanup (10 gram column with reverse surrogate)
 Soxhlet Extraction
 Sulfur Cleanup

METHOD

EPA 3650B
 EPA 3610B/3611B
 CA DHS LUFT
 CEL SOP M234
 EPA 3620B/C
 EPA 3640A
 EPA 3630C (M)
 CA DHS LUFT
 EPA 3540C
 EPA 3660B

Other protocols available, call for options and pricing

MULTI-INCREMENTAL SAMPLING

Semi-volatile/non-volatile MIS per HI HEER Guidance
 Volatile MIS per HI HEER Guidance
 Metals Digestion, 10 gram sample (multiple digestions)
 Mercury Digestion, 5 gram sample (multiple digestions)
 Methanol kit for MIS volatile fraction sampling

METHOD

HI HEER
 HI HEER
 EPA 3050B
 EPA 3050B
 EPA 5035

OTHER PREPARATIONS

Concrete Crushing
 Soil Sieving

METALS

ANALYSIS

Sample Preparation

Total Digestion

Sample Filtration for Dissolved Metals (Within 24 hrs)

Reductive Precipitation Procedure

TCLP/SPLP Bottle Extraction

STLC (WET) Extraction

Chromium VI (24 hour Hold Time for waters)

Chromium VI (24 hour Hold Time for waters)

Chromium VI (24 hour Hold Time for waters)

Chromium VI (soil/solid matrix)

Individual Metals by ICP

Individual Metals by ICP/MS

Mercury by Cold Vapor AA (includes digestion)

Mercury – Low Level (water)

Mercury – Low Level (soil)

Acid-Volatile Sulfides/Simultaneously Extracted Metals

CA Title 22 - CAM 17 Metals: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Tl, V, Zn**

CA Title 22 - CAM 17 Metals: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Tl, V, Zn**

Priority Pollutant Metals: **Sb, As, Be, Cd, Cr(t), Cu, Pb, Hg, Ni, Se, Ag, Tl, Zn**

Priority Pollutant Metals: **Sb, As, Be, Cd, Cr(t), Cu, Pb, Hg, Ni, Se, Ag, Tl, Zn**

TCLP (RCRA) Metals: **As, Ba, Cd, Cr(t), Pb, Hg, Se, Ag**

ICP Metals Scan: **Al, Sb, As, Ba, Be, B, Cd, Ca, Cr(t), Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, P, K, Se, Si, Sr, Ag, Na, Sn, Ti, Tl, V, Zn**

ICP/MS Metals Scan: **Al, Sb, As, Ba, Be, B, Cd, Ca, Cr(t), Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Sr, Ag, Na, Sn, Ti, Tl, V, Zn**

Appendix I List: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, Hg**

Appendix I List: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, Hg**

Appendix II/IX List: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, V, Zn, Hg**

Appendix II/IX List: **Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, V, Zn, Hg**

ICP/MS Metals Scan with Reductive Precipitation Preparation: **As, Be, Cd, Cr, Co, Pb, Ni, Se, Ag, Zn**

Sea Water Metals: **Al, Sb, As, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Se, Ag, Tl, V, Zn**

METHOD

EPA 1010A/3020A/3050B

EPA 3005A

SOP M225

EPA 1311/1312

CAC, Title 22, § 66261.126, App. II

EPA 218.6

EPA 7196A

EPA 7199

EPA 7199/3060A

EPA 6010B/C or 200.7

EPA 6020/6020A or 200.8

EPA 7470A/7471A/ or 245.1

EPA 1631

EPA 1631

EPA 821-R-91-100/6010B/C

EPA 6010B/C & 7470A or 7471A

EPA 6020/6020A & 7470A or 7471A

EPA 200.7 & 245.1 or
EPA 6010B/C & 7470A or 7471A

EPA 200.8 & 245.1 or
EPA 6020/6020A & 7470A or 7471A

EPA 6010B/C & 7470A or 7471A

EPA 6010B/C or 200.7

EPA 6020/6020A or 200.8

EPA 6010B/C & 7470A or 7471A

EPA 6020/6020A & 7470A or 7471A

EPA 6010B/C & 7470A or 7471A

EPA 6020/6020A & 7470A or 7471A

SOP M225/EPA 6020/6020A or 200.8

EPA 1640

Parameters shown in **Bold** have short Hold Times

WET CHEMISTRY

ANALYSIS

Acidity

Acid Volatile Sulfides/Simultaneously Extracted Metals

Ash Free Dry Mass

Anions by IC (F, Cl, Br, **NO₂**, **NO₃**, SO₄, o-PO₄) **(48 hour Hold Time)**

Any single anion

Any two anions

Any three anions

Alkalinity, Total

Alkalinity, Speciated (bicarbonate, carbonate, hydroxide)

Biochemical Oxygen Demand (48 hour Hold Time)

Carbon Dioxide – headspace analysis

Carbon Dioxide (24 hour Hold Time)

Bromide

Cation Exchange Capacity

Chemical Oxygen Demand (reflux)

Chemical Oxygen Demand (spectrophotometric)

Chloride

Chlorine, Free (15 minute Hold Time)

Chlorine, Total Residual (15 minute Hold Time)

Chromium VI (24 hour Hold Time)

Chromium VI (24 hour Hold Time)

Chromium VI (24 hour Hold Time)

Chromium VI (soil/solid samples)

Color (48 hour Hold Time)

Cyanide, Amenable

Cyanide, Free

Cyanide, Total

Cyanide, Total

Density

Fluoride (ISE)

Dissolved Organic Carbon (Sample filtration required within 24 hours)

Formaldehyde (24 hour Hold Time)

METHOD

SM 2310 B (EPA 305.1)

EPA 821-R-91-100/6010B/C

SM 10300 C

EPA 300.0

EPA 300.0

EPA 300.0

EPA 300.0

SM 2320 B (EPA 310.1)

SM 2320 B (EPA 310.1)

SM 5210 B (EPA 405.1)

RSK 175(M)

SM 4500 CO₂ D

SM 4500 Br B

EPA 9081

SM 5220 C (EPA 410.1)

SM 5220 D/EPA 410.4

SM 4500 Cl C (EPA 325.3)

SM 4500 Cl F (EPA 330.4)

SM 4500 Cl F (EPA 330.4)

EPA 218.6

EPA 7196A

EPA 7199

EPA 7199/3060A

SM 2120 B (EPA 110.2)

SM 4500 CN G

SM 4500 CN I

SM 4500 CN E (EPA 335.2)

EPA 9010C/9014

ASTM D1475(M)

SM 4500 F C (EPA 340.2)

SM 5310 D (EPA 415.1)

ASTM D6303-98

Parameters shown in **Bold** have short Hold Times. Methods shown in red are EPA methods which were replaced under the US EPA Methods Update Rule (MUR) effective April 11, 2007.

WET CHEMISTRY (continued)

ANALYSIS

Hardness, Total
 Hardness, (Magnesium, calc. from Calcium & total hardness)

Hydrazine (24 hour Hold Time)

Hydrogen Sulfide (24 hour Hold Time)

Hydrochloric Acid, Percent

Ignitability (Flashpoint)

Ignitability (Soil/Solid)

Iodide

Ion Balance

Iron, Ferrous (24 hour Hold Time)

Mercaptans (48 hour Hold Time)

Moisture Content

Nitrogen

Ammonia (Titration with distillation)

Ammonia (Unionized)

Ammonia (Ion Selective Electrode (ISE) with distillation)

Ammonia (Segmented Flow Analyzer (SFA))

Nitrate (48 hour Hold Time)

Nitrite (48 hour Hold Time)

Nitrate & Nitrite (48 hour Hold Time)

Organic

Total Kjeldahl

Total Kjeldahl (SFA)

Total Nitrogen (48 hour Hold Time)

Total Inorganic Nitrogen (48 hour Hold Time)

Odor (24 hour Hold Time)

Oil and Grease

Oil and Grease; Hexane Extractable Material (HEM)

Oil and Grease; HEM - Silica Gel Treated (SGT)

Oxygen, Dissolved (15 minute Hold Time)

Paint Filter Liquids Test

pCBSA

Perchlorate, Soil

Perchlorate, Water

Perchlorate, Water

Perchlorate, Soil or Water

pH (15 minute Hold Time)

METHOD

SM 2340 C (EPA 130.2)

SM 2340 B

ASTM D1385

HACH Model HS-C

Sodium Carbonate Titration

EPA 1010

EPA 1030

SM4500 ID(M)

Calculation

SM 3500 Fe B

LACSD 258

ASTM D2216

SM 4500 NH3 B/C (EPA 350.2)

SM 4500 NH3 B/C (EPA 350.2)

SM 4500 NH3 F (EPA 350.3)

EPA 350.1(M)

SM 4500 NO3 E/SM 4500 NO2 B

SM 4500 NO2 B (EPA 354.1)

SM 4500 NO3 E (EPA 353.3)

SM 4500 NH3 B/C/4500 N Org B

SM 4500 N Org B (EPA 351.3)

EPA 351.2(M)

SM 4500 NO3 E/4500 N Org B

SM 4500 NO3 E/4500 NH3 B/C

SM 2150 B

SM 5520 B or 413.1

EPA 1664A

EPA 1664A

SM 4500 O G

EPA 9095B

EPA 314.0(M)

EPA 314.0(M)

EPA 314.0

EPA 331.0(M)

EPA 6850

SM 4500 H+B or EPA 9045D

Parameters shown in **Bold** have short Hold Times. Methods shown in red are EPA methods which were replaced under the US EPA Methods Update Rule (MUR) effective April 11, 2007.

WET CHEMISTRY (continued)

ANALYSIS

Phenolics, Total

Phosphate, Ortho (48 hour Hold Time)
Phosphate, Ortho (SFA) (48 hour Hold Time)

Phosphate, Total

Phosphate, Total (SFA)

Phosphorous, Total

Phosphorous, Total (SFA)

Redox Potential (24 hour Hold Time)

Resistivity

Salinity

Sediment Concentration in Water

Solids (Residues)

Total Dissolved

Total Suspended

Total

Volatile

Settleable (48 hour Hold Time)

Volatile Suspended

Specific Conductance

Sulfide

Sulfide, Dissolved (15 minute Hold Time)
Sulfite (15 minute Hold Time)
Surfactants (MBAS) (48 hour Hold Time)
Thiosulfates (48 hour Hold Time)

Total Inorganic Carbon in Water/Liquids

Total Inorganic Carbon in Soil/Solids

Total Organic Carbon in Water/Liquids

Total Organic Carbon in Soil/Solids

Turbidity (48 hour Hold Time)

General Minerals

 Calcium, Copper, Iron, Magnesium, Manganese, Sodium, Zinc,
 Alkalinity-speciated, Chloride, **MBAS**, **pH**, Sulfate, **Nitrate**, **Nitrite**,
 Conductivity, Hardness, & TDS

Cation-Anion Balance

 Alkalinity, Calcium, Chloride, Fluoride, Iron, Magnesium, Manganese,
Nitrate, **Nitrite**, **pH**, Potassium, Sodium, Conductivity, Sulfate, & TDS

METHOD

SM 5530 D or EPA 9065 or 420.1

SM 4500 P B/E

EPA 365.1(M)

SM 4500 P B/E

EPA 365.1(M)

SM 4500 P B/E (EPA 365.3)

EPA 365.1(M)

ASTM D1498

EPA 120.1(M)

SM 2520 B

ASTMD3977-97

SM 2540 C (EPA 160.1)

SM 2540 D (EPA 160.2)

SM 2540 B (EPA 160.3)

EPA 160.4

SM 2540 F (EPA 160.5)

SM 2540 D/EPA 160.4

SM 2510 B

SM 4500 S2 D (EPA 376.2)

SM 4500 S2 D (EPA 376.2)

SM 4500 SO3 B (EPA 377.1)

SM 5540 C (EPA 425.1)

LACSD 253A

SM 5310 D(M) (EPA 415.1)

EPA 9060A(M)

SM 5310 D (EPA 415.1)

EPA 9060A

SM 2130 B (EPA 180.1)

Various

Various

Parameters shown in **Bold** have short Hold Times. Methods shown in red are EPA methods which were replaced under the US EPA Methods Update Rule (MUR) effective April 11, 2007.

BIOASSAYS

ANALYSIS

96-hour Acute Aquatic Toxicity (% survival)

96-hour LC 50 Aquatic Bioassay (definitive) Includes % Survival

METHOD

California Dept. of Fish & Game

California Dept. of Fish & Game

Air/Vapor

AIR/VAPOR

METHOD

DESCRIPTION

8260B/C(M)

Soil Gas Analysis by GC/MS

- BTEX or MTBE Only
- BTEX + Oxygenates + Ethanol
- BTEX + Oxygenates + Naphthalene + Ethanol

TO-14A

Volatile Organics by GC/MS Full Scan

- Full TO-14A Target List
- Full TO-14A Target List + MTBE
- BTEX or MTBE Only
- SCAQMD Rule 1150.1 Compounds
- Add Tentatively Identified Compounds

EPA TO-15/TO-15(M)

Volatile Organics by GC/MS Full Scan

- EPA 8021B List
- BTEX and MTBE
- BTEX or MTBE Only
- BTEX and Fuel Oxygenates
- BTEX, Fuel Oxygenates + Naphthalene
- Naphthalene
- Full TO-15 List (Standard Target List)
- Full TO-15 List + Fuel Oxygenates
- Full TO-15 List + Oxygenates + Naphthalene
- TO-15 Extended Target List
- Add Tentatively Identified Compounds
- Mass DEP Air-Phase Petroleum Hydrocarbons

EPA TO-15 SIM

Volatile Organics by GC/MS in SIM Mode *

- One compound
- Two to five compounds
- Six to ten compounds
- Full SIM List
- Full SIM List + Naphthalene

** Requires individually certified Summa™ canisters and flow controllers.*

AIR/VAPOR (continued)

METHOD

DESCRIPTION

EPA TO-17

Analysis of Sorbent Tubes by GC/MS

- Naphthalene
- Gasoline Range Organics
- Diesel Range Organics
- Volatile Organic Compounds

EPA TO-13A

Analysis from High Volume PUF Cartridges

EPA TO-4A/TO-10A

- Polynuclear Aromatic Hydrocarbons

EPA TO-4A/TO-10A

- Pesticides

- Polychlorinated Biphenyls (PCBs - Aroclors)

Analysis by GC

ASTM D-2820

- C₁ – C₆ Hydrocarbon Speciation by GC/FID

EPA TO-3(M)

- C₁ – C₆ Hydrocarbon Speciation by GC/FID

EPA TO-3(M)

- TPH as Gasoline

EPA TO-3(M)

- Gasoline Range Organics C₆-C₁₂

EPA TO-3(M)

- VOCs >= C₃ as Hexane (SCAQMD permit compliance)

ASTM D-1946

- Fixed Gases (CO₂, CO, CH₄, N₂, O₂)

ASTM D-1946

- Helium and/or Hydrogen

EPA 16 GC/FPD

- **Hydrogen Sulfide (24 hour Hold Time, requires Tedlar™ bag)**

SCAQMD 25.1

- Non-condensables analysis for TGNMO and CH₄

SCAQMD 25.1

- Non-condensables analysis for TGNMO, CH₄ and fixed gases

SCAQMD 25.1

- Non-condensables analysis for fixed gases

RSK 175(M)

Headspace Analysis by GC

- Methane in water
- Methane, Ethane & Ethene in water
- Carbon Dioxide in water

Particulates & Lead

40 CFR, Part 50, App. G

- Lead Analysis, high-vol. sampling

40 CFR, Part 50, App. J

- TSP/PM₁₀ Particulate, high-vol. sampling

40 CFR, Part 50, App. J

- TSP/PM_{2.5} Particulate, high-vol. sampling

Marine Chemistry

Sediments, Tissues, Seawater & Elutriates

SEDIMENT

ANALYSIS

Organochlorine Pesticides
Polybrominated Diphenyl Ethers (PBDEs) (Isotope Dilution)
Polychlorinated Biphenyl's (PCBs – Aroclors)
PCB Congeners ([Eurofins Calscience list of 41 Congeners](#)) by GC/MS SIM
PCB Congeners - Extended Target List by GC/MS SIM
Polynuclear Aromatic Hydrocarbons by GC/MS SIM
Phenols Low-level by GC/MS SIM
Phthalates Low-level by GC/MS SIM
Polynuclear Aromatic Hydrocarbons by GC/MS SIM
Pyrethroids by GC/TQ
Semivolatile Organic Compounds ([Phenols](#), [Phthalates](#), [PAHs](#)) by GC/MS SIM
Total Recoverable Petroleum Hydrocarbons (TRPH)
Total Petroleum Hydrocarbons (TPH)-Gasoline
TPH-Diesel
TPH with Carbon Chain Breakdown (C6-C44)
Volatile Organic Compounds (VOCs) plus Fuel Oxygenates
Organotins ([Dibutyltin](#), [Monobutyltin](#), [Tetrabutyltin](#), [Tributyltin](#))
Organotins – Tributyltin only
Total Organic Carbon (TOC)
Metals in Sediment: [As](#), [Cd](#), [Cr](#), [Cu](#), [Pb](#), [Hg](#), [Ni](#), [Se](#), [Ag](#), [Zn](#)
Mercury
Mercury Low-level
Ammonia, Total
Chromium VI
Chromium VI - Low Level
Moisture Content/Total Solids
Particle Size Analysis (Sieve or Laser)
Sulfide, Total
Sulfide, Total (Field preservation required)
Sulfide, Dissolved (Pore Water) (24 hour Hold Time)
Sulfide, Dissolved (Field preservation required)

METHOD

EPA 8081A/B
EPA 8270C/D SIM
EPA 8082/8082A
EPA 8270C/D(M) SIM
EPA 8270C/D(M) SIM
EPA 8270C/D(M) SIM
EPA 8270C/D(M) SIM
EPA 8270C/D(M) SIM
EPA 8270C/D(M) SIM
EPA 8270D(M) TQ
EPA 8270C/D(M) SIM
418.1(M)
EPA 8015B/D(M)/GRO
EPA 8015B/D(M)/DRO
EPA 8015B/D(M)
EPA 8260B/C
Krone et al. (GC/MS)
Krone et al. (GC/MS)
EPA 9060A
EPA 6020/6020A & 7471A
EPA 7471A
EPA 1631
SM 4500 NH3 B/E(M)
EPA 7196A
EPA 7199/3060A
ASTM D-D216 or SM2540B
ASTM D422 or D4464(M)
SM 4500 S2 D(M)
EPA 9030B/9034
SM 4500 S2 D(M)
EPA 9030B/9034

ELUTRIATE PREPARATION

ANALYSIS

SET - Standard Elutriate Test (Open Water Disposal)

MET/EET - Modified Elutriate Test / Effluent Elutriate Test (Confined or Diked Disposal)

DRET - Dredging Elutriate Test (Point of Dredging)

SEAWATER & ELUTRIATES

ANALYSIS

Organochlorine Pesticides

PCBs (Aroclors)

PCB Congeners (List of 41 Congeners) by GC/MS SIM

PCB Congeners - Extended List by GC/MS SIM

Phenols Low-level by GC/MS SIM

Phthalates Low-level by GC/MS/SIM

Polynuclear Aromatic Hydrocarbons by GC/MS SIM

Polybrominated Diphenyl Ethers (PBDEs) (Isotope Dilution)

Pyrethroids by GC/TQ

Organotins ([Dibutyltin](#), [Monobutyltin](#), [Tetrabutyltin](#), [Tributyltin](#))

Organotins – Tributyltin only

Sea Water Metals: [As](#), [Cd](#), [Cr](#), [Cu](#), [Pb](#), [Hg](#), [Ni](#), [Se](#), [Ag](#), [Zn](#)

Sea Water Metals Scan with Reductive Precipitation Preparation: [As](#), [Be](#), [Cd](#), [Cr](#), [Co](#), [Pb](#), [Ni](#), [Se](#), [Ag](#), [Zn](#)

Sea Water Metals: [Al](#), [Sb](#), [As](#), [Ba](#), [Cd](#), [Cr](#), [Co](#), [Cu](#), [Fe](#), [Pb](#), [Mn](#), [Mo](#), [Se](#), [Ag](#), [Ti](#), [V](#), [Zn](#)

Mercury

Mercury – Low Level

Total Suspended Solids

THB Reductive Precipitation Procedure (trace element determination)

METHOD

EPA 8081A/B

EPA 8082/8082A

EPA 8270D(M) SIM

EPA 8270D(M) SIM

EPA 8270C/D(M) SIM

EPA 8270C/D(M) SIM

EPA 8270C/D(M) SIM

EPA 8270 (M) SIM

EPA 8270D(M) TQ

Krone et al. (GC/MS)

Krone et al. (GC/MS)

EPA 6020/6020A & 7471A

SOP M225/EPA 6020/6020A
or 200.8

EPA 1640

EPA 7470A

EPA 1631

SM 2540 C

SOP M225

TISSUES

ANALYSIS

Organochlorine Pesticides
PCBs (Aroclors)
PCB Congeners (Eurofins list of 41 Congeners) by GC/MS SIM
PCB Congeners (Eurofins list of 41 Congeners) by HRMS with Dilution
PCB Congeners - Full list 209 Congeners by HRMS
Polynuclear Aromatic Hydrocarbons by GC/MS SIM
Pyrethroids by GC/TQ
Organotins (Dibutyltin, Monobutyltin, Tetrabutyltin, Tributyltin)
Tributyltin
Metals: As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn
Mercury
Lipids
Moisture Content/Total Solids
Sample Preparation/Homogenization

METHOD

EPA 8081A/B
EPA 8082/8082A
EPA 8270D(M) SIM
EPA 1668
EPA 1668
EPA 8270C/D(M) SIM
EPA 8270D(M) TQ
Krone et al. (GC/MS)
Krone et al. (GC/MS)
EPA 6020/6020A & 7471A
EPA 7471A
Eurofins SOP
ASTM D 2216/SM 2540 B

PREPARATIONS & CLEANUPS

PROCEDURE

Gel Permeation Cleanup (GPC)
Silica Gel Cleanup
Solid Phase Extraction (SPE)
Sulfur Cleanup
ENVI-Carb/PSA
Bivalve Shucking
Dissection
Sample Compositing
Sample Homogenization
Pore Water Preparation

METHOD

EPA 3640A
EPA 3630C (M)
EPA 3535A(M)
EPA 3660B
CEL SOP M234