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<b>Environmental Methods</b>	<b>Method Reference</b>	<b>Sample Size</b>	<b>NU cost</b>	<b>Outside Cost</b>
<b>Agilent 5972 GC-MS</b>				
<b>Sample extracts (user prepared)</b>				
<i>17 Beta Estradiol by GCMS</i>	Shareef, et al. (2006)	250 mL	\$40.00	\$50.00
<b>Agilent 5973 - Gases (ENT)</b>				
<b>Gas</b>				
<i>Separation of major gas components</i>	Shigematsu, et al. (2004)	50 mL	\$20.00	\$25.00
<b>Agilent 5973 GC-MS</b>				
<b>Water, wastewater</b>				
<i>Volatile Organics by PT-GC/MS EPA 8260</i>	EPA 8260	50 mL	\$80.00	\$100.00
<i>Pesticides in Water by GC/MS</i>	Cassada, et al. (1994)	1 Liter	\$68.00	\$85.00
<i>TCE and Chlorinated Solvents by PT/GC/MS</i>	EPA 8260B	50 mL	\$60.00	\$75.00
<b>Sediment, soil, sludge</b>				
<i>Pesticides in solids by GC/MS</i>	Huang (1989)	50 gm	\$96.00	\$120.00
<b>Passive sampler (POCIS)</b>				
<i>Pesticides in POCIS Extracts</i>	Jones-Lepp, et al. (2004)	1 disk	\$80.00	\$100.00
<b>Biological</b>				
<i>Chlorinated Pesticides DDT, DDE, DDD MASE/GC/MS</i>	Volz and Johnston (2002)	50 gm	\$80.00	\$100.00
<b>ICP Mass Spectrometer Platform XS (per element)</b>				
<b>Water, wastewater</b>				
<i>Semi Quantitative Samples via ICP-MS</i>	EPA 200.8	250 mL	\$48.00	\$60.00
<i>Dissolved Elements by ICPMS (No digestion) 6020A</i>	EPA 6020A	50 mL	\$12.00	\$15.00
<i>Inductivity Coupled Plasma - Mass Spectrometry</i>	EPA 200.8	250 mL	\$12.00	\$15.00
<b>Sediment, soil, sludge</b>				
<i>ICP-MS with digestion EPA 6020A/3051</i>	EPA 6020A, EPA 3051	50 gm	\$12.00	\$15.00
<b>Biological</b>				
<i>Elemental analysis in plant tissue</i>	Hicsonmez, et al. (2012)	50 gm	\$12.00	\$15.00
<b>Digestion (per sample)</b>				
<i>ICPMS Digestion EPA 3051A</i>	EPA 3051, EPA 3052	5 gm	\$6.40	\$8.00
<b>Waters 2695 HPLC (PDA/FL)</b>				
<b>Water, wastewater</b>				
<i>Glyphosate and AMPA by HPLC with FMOF Fluorescence</i>	Meyer, et al. (2009)	50 mL	\$64.00	\$80.00
<i>Sulfa Pharmaceuticals by HPLC-UV</i>	Bedor, et al. (2008)	250 mL	\$25.60	\$32.00
<i>Atrazine by HPLC - UV</i>	Dopico, et al. (2002)	50 mL	\$16.00	\$20.00
<i>Chlorophyll A by HPLC Fluorescence EPA 445.0</i>	EPA 445.0	50 mL	\$12.00	\$15.00
<b>Waters Quattro-Micro LC/MS/MS</b>				
<b>Water, wastewater</b>				
<i>LC/MS/MS APPI Steroids in Water</i>	Snow, et al. (2013)	250 mL	\$200.00	\$250.00
<i>LCMS vetpharm in water by offline extraction</i>	Yang, et al. (2004)	250 mL	\$200.00	\$250.00
<i>Fluazifop and acid herbicides in water</i>	Thurman, et al. (2001)	250 mL	\$160.00	\$200.00

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<i>Pharm and Illicit in water by LC/MS/MS</i>	Kasprzyk-Hordern, et al. (2007), Berset, et al. (2010)	250 mL	\$160.00	\$200.00
<i>LC/MS/MS Pharm and personal care products ESI-</i> <b>Sediment, soil, sludge</b>	EPA 1694	250 mL	\$160.00	\$200.00
<i>LC/MS/MS - Personal Care Products in solids</i>	EPA 1694	50 gm	\$200.00	\$250.00
<i>LC/MS/MS APPI Steroids Solids MASE</i>	Snow, et al. (2013)	50 gm	\$200.00	\$250.00
<i>LCMS vetpharm in solids by cold extraction</i>	Aga, et al. (2005), Yang, et al. (2004)	50 gm	\$200.00	\$250.00
<i>Fluazifop and acid herbicides in solids</i>	Thurman, et al. (2001)	50 gm	\$200.00	\$250.00
<i>Pharm and Illicit compounds in solids</i> <b>Passive sampler (POCIS)</b>	Pal, et al. (2011)	50 gm	\$200.00	\$250.00
<i>LCMS - Pharm Illicit compounds in POCIS</i>	Jones-Lepp, et al. (2004)	1 disk	\$200.00	\$250.00
<i>TCs, Sulfas, Macrolides, others in POCIS</i>	Jones-Lepp, et al. (2004)	1 disk	\$184.00	\$230.00
<i>LCMS - Steroids compounds in POCIS</i>	Jones-Lepp, et al. (2004)	1 disk	\$176.00	\$220.00
<b>AP2003 CF - IRMS</b> <b>Water, wastewater</b>				
<i>C and O Isotopes in carbonate by CF IRMS</i>	Blyth, et al. (2013)	250 mL	\$24.00	\$30.00
<i>IRMS CO<sub>2</sub>-equilibration CF-IRMS</i>	Blyth, et al. (2013)	250 mL	\$20.00	\$25.00
<b>GVI - ConFlow - IRMS</b> <b>Water, wastewater</b>				
<i>18O in nitrate - High Temp EA IRMS</i>	Chang et al. (1999)	1 Liter	\$68.00	\$85.00
<i>18O in PO<sub>4</sub> by conversion to AgPO<sub>4</sub></i>	McLaughlin et al. (2004)	1 Liter	\$68.00	\$85.00
<i>IRMS EA Water 2H<sub>2</sub>Cr Pyrolysis</i>	Koehler, et al. (2000)	250 mL	\$20.00	\$25.00
<i>H, C, N, or O by EA-CF-IRMS (Isoprime MS)</i>	Wassenaar and Koehler (1999)	250 mL	\$16.00	\$20.00
<i>18O in organics by EA CF IRMS</i>	Wassenaar and Koehler (1999)	250 mL	\$12.00	\$15.00
<b>Sediment, soil, sludge</b>				
<i>18O-Extracted Water</i>	Wassenaar and Koehler (1999)	50 gm	\$20.00	\$25.00
<b>Biological</b>				
<i>Deuterium in biological Tissue</i>	WSL Method Development	50 gm	\$12.00	\$15.00
<b>Helix SFT Noble Gas MS</b> <b>Water, wastewater</b>				
<i>Extraction of dissolved gases 3He/3H age dating</i>	WSL Method Development	40 gm Cu	\$480.00	\$600.00
<b>Isoprime Dual Inlet IRMS</b> <b>Water, wastewater</b>				
<i>13C and 18O in carbonates by dual inlet IRMS</i>	Wassenaar and Koehler (1999)	50 mL	\$28.00	\$35.00
<b>Micromass Optima IRMS</b> <b>Water, wastewater</b>				
<i>IRMS 15N Nitrate &amp; Ammonia Dual Inlet</i>	Gormly and Spalding (1979)	1 Liter	\$120.00	\$150.00
<i>Nitrogen Isotope Analysis of TKN Digest</i>	Gormly and Spalding (1979), Sadayappan Mariappan , Mary E. Exner , Glen E. Martin , Roy F. Spalding	250 mL	\$120.00	\$150.00
<i>Nitrogen isotopes of soil KCl extracts</i>	WSL Method Development	250 mL	\$120.00	\$150.00
<i>Argon Nitrogen ratio and nitrogen isotope analysis</i>	Martin, et al. (1995)	250 mL	\$40.00	\$50.00
<i>Isotope analysis in CO<sub>2</sub> gas samples</i>	Koehler, et al. (2000)	250 mL	\$28.00	\$35.00
<b>Accumet</b> <b>Water, wastewater</b>				
<i>Specific conductivity in water SM2510</i>	SM 2510	50 mL	\$6.40	\$8.00
<b>AQ2 Automated Multi-Chemistry Analyzer</b> <b>Water, wastewater</b>				
<i>Total Kjeldahl Nitrogen EPA 351.2 (Colorimetric)</i>	EPA-111-A Rev-8	250 mL	\$20.00	\$25.00

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<b>Standard Water Testing</b>	<b>Method Reference</b>	<b>Sample Size</b>	<b>NU cost</b>	<b>Outside Cost</b>
<i>Total Kjeldahl Phosphorus</i>	EPA-135-A Rev 2, EPA 365.4	250 mL	\$20.00	\$25.00
<i>Total Dissolved Phosphorus AQ2 EPA 365.1</i>	EPA 365.1	250 mL	\$16.00	\$20.00
<i>Total Nitrogen - Persulfate Oxidation SM4500P</i>	SM 4500P	250 mL	\$16.00	\$20.00
<i>Total Phosphorus in water EPA 365.1</i>	EPA-119-A Rev 7	250 mL	\$16.00	\$20.00
<i>Sulfanilamide colorimetric Analysis - EPA 353.2</i>	EPA-116-A Rev 4	250 mL	\$12.00	\$15.00
<i>Cd reduction with nitrite subtraction (NO3N only)</i>	EPA 353.2	250 mL	\$10.00	\$12.50
<i>AQ2 Phenate Colorimetry</i>	EPA 103-A Rev 10	50 mL	\$9.60	\$12.00
<i>Molybdate reactive silica - EPA Method 370.1</i>	EPA-121-A Rev 2	50 mL	\$9.60	\$12.00
<i>Nitrate_Nitrite in water Cd-Reduction EPA 353.2</i>	EPA-127-A Rev 8	250 mL	\$9.60	\$12.00
<i>Soluble Phosphate AQ2 EPA 365.1</i>	EPA-118-A, EPA 365.1	50 mL	\$9.60	\$12.00
<b>Sediment, soil, sludge</b>				
<i>Total Kjeldahl Nitrogen EPA 351.2 - Solids</i>	EPA-111-A Rev-8	50 gm	\$20.00	\$25.00
<i>Total Kjeldahl Phosphorus solids</i>	EPA 365.4	50 gm	\$16.00	\$20.00
<i>Ammonia in soil w/ KCl extraction</i>	EPA 350.1	50 gm	\$9.60	\$12.00
<i>Nitrate_Nitrite in soil w/ KCl extraction</i>	EPA 353.2	50 gm	\$9.60	\$12.00
<b>Ion Chromatograph System ICS-90</b>				
<b>Water, wastewater</b>				
<i>Ion Chromatography - Major Anions EPA 300.0</i>	EPA 300	250 mL	\$20.00	\$25.00
<i>Chloride in dried solids/hot water extraction</i>	Schroepel-Meier and Kaiser (1988)	250 mL	\$16.00	\$20.00
<b>Lachat Quikchem Analyzer</b>				
<b>Water, wastewater</b>				
<i>Total nitrogen in water by in-line digestion FIA</i>	QuikChem 10-107-04-3-B SM4500N	250 mL	\$8.00	\$10.00
<i>Orthophosphate in water by FIA</i>	QuikChem 10-115-01-1-A SM4500P, QuikChem 10-510-00-1-A SM4110B	250 mL	\$8.00	\$10.00
<i>Nitrate/Nitrite in Water Cd reduction FIA</i>	QuikChem 10-107-04-1-R EPA353.2	250 mL	\$8.00	\$10.00
<i>Ammonia in water by FIA</i>	QuikChem 10-107-06-1-J SM4500NH3	250 mL	\$8.00	\$10.00
<b>Mettler Analytical Balance</b>				
<b>Water, wastewater</b>				
<i>Oil and grease EPA 1664A</i>	EPA 1664A	1 Liter	\$40.00	\$50.00
<b>PE Atomic Absorption Spectrometer</b>				
<b>Water, wastewater</b>				
<i>Atomic Absorption Spectrophotometry (per element)</i>	SM 3111	50 mL	\$8.00	\$10.00
<b>Sediment, soil, sludge</b>				
<i>Atomic Absorption Spectrophotometry - Solids</i>	SM 3111	50 gm	\$8.00	\$10.00
<b>Perkin Elmer Lambda 25 Spectrophotometer</b>				
<b>Water, wastewater</b>				
<i>Chemical Oxygen Demand SM 5220</i>	SM 5220	250 mL	\$16.00	\$20.00
<i>Free and total chlorine in water</i>	WSL Method Development	250 mL	\$16.00	\$20.00
<b>Total Organic Carbon Analyzer MDL 1010</b>				
<b>Water, wastewater</b>				
<i>Dissolved Organic Carbon-Heated Persulfate SM5310</i>	SM 5310	250 mL	\$16.00	\$20.00
<i>Total Organic Carbon SM5310 Persulfate Oxidation</i>	SM 5310	250 mL	\$16.00	\$20.00
<b>YSI Dissolved Oxygen Meter</b>				
<b>Water, wastewater</b>				
<i>Dissolved Oxygen - Titrametric SM4500O C</i>	SM 4500O	50 mL	\$12.80	\$16.00
<b>Water, wastewater</b>				
<i>pH in Water SM4500</i>	SM 4500H	250 mL	\$8.00	\$10.00

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<b>Miscellaneous Test Methods</b>	<b>Method Reference</b>	<b>Sample Size</b>	<b>NU cost</b>	<b>Outside Cost</b>
<b>2020e Turbidity Meter</b>				
<b>Water, wastewater</b>				
<i>Turbidity - SM2130</i>	SM 2130B	250 mL	\$6.40	\$8.00
<b>EnviroSys Automated SPE System</b>				
<b>Water, wastewater</b>				
<i>Biochemical Oxygen Demand SM 5210 (5Day)</i>	SM 5210B	50 mL	\$16.00	\$20.00
<b>Mettler Analytical Balance</b>				
<b>Water, wastewater</b>				
<i>Total Dissolved Solids - EPA 160.1</i>	EPA 160.1	150 mL	\$8.00	\$10.00
<i>Total Suspended Solids - SM2540D</i>	EPA 2540D	150 mL	\$8.00	\$10.00
<i>Suspended Sediment Concentration</i>	ASTM D3977 - 97 (2013)	250 mL	\$8.00	\$10.00
<i>Total Volatile Solids - SM2540G</i>	SM 2540G	250 mL	\$6.40	\$8.00
<i>Volatile Dissolved Solids - SM2540C</i>	SM 2540C	250 mL	\$6.40	\$8.00
<i>Volatile Suspended Solids - SM2540E</i>	SM 2540E	250 mL	\$6.40	\$8.00
<b>PE Atomic Absorption Spectrometer</b>				
<b>Water, wastewater</b>				
<i>Water hardness by Calculation</i>	EPA 130.2	250 mL	\$16.00	\$20.00
<b>Lachat Quikchem Analyzer</b>				
<b>Miscellaneous</b>				
<i>per Day</i>	QuikChem 10-107-04-1-R EPA353.2, QuikChem 10-107-06-1-J SM4500NH3, QuikChem 10-510-00-1-A SM4110B		\$100.00	\$125.00