Supporting Water and Environmental Research

State-of-the-art instrumentation, specialized preparation equipment and a skilled professional staff provide high-quality analyses for water and environmental research needs.

The WQRL uses nationally-recognized published methods for sample analysis, and has a quality assurance/quality control program in place to ensure the highest quality data.

Please contact us for your water and environmental analytical needs. Our personnel would be happy to assist you in determining your sample collection, storage, preparation, and analysis requirements.

WQRL Personnel

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Technical and Analytical Support for Water and Environmental Research

The purpose of ABE’s Water Quality Research Laboratory (WQRL) is to facilitate research on water quality, specifically investigating the occurrence, fate, transport, and control of microbiological or chemical pollutants in natural and engineered environmental systems.

The WQRL is located in Sukup Hall, on the west side of the Iowa State University campus.

There are separate spaces in the WQRL dedicated to research on pathogens and pathogen indicators (4205 Sukup), nutrients, pesticides and chemicals of emerging environmental concern in water (4207 Sukup), and a 30-foot long recirculating research flume (0208 Sukup).

WQRL 2016-17 Price List

Water Analysis

**Dissolved Nutrient Analysis via Seal Analytical AQ2 autoanalyzer**
($7.00/sample/analyte)

**Ammonia**
Indophenol blue method.

**Chloride**
Mercuric thiocyanate reaction in the presence of ferric nitrate.

**Nitrate + Nitrite**
Copperized cadmium reduction method. Nitrite can be determined separately for an additional $7.00/sample charge.

**Orthophosphate/dissolved reactive phosphorus**
Molybdenum blue method. Filtration through a 0.45 µm pore filter for DRP preparation available at an additional charge of $3.00/sample.

**Sulfate**
Barium chloride turbidimetry.

**Total Nitrogen/Phosphorus**
Alkaline persulfate digestion.

**Total Kjeldahl Nitrogen/Phosphorus**
Kjeldahl digest with copper catalyst.

$14.00/sample/analyte, $21.00 for both analytes

HPLC analysis
Varian ProStar with UV Photodiode Array Detector. Does not include charges for sample extraction.

Microbiological testing
Fecal indicator bacteria.

pH, conductivity

Chlorophyll-a/phaeophytin

UV/Vis spectroscopy
8454 Agilent UV/Vis spectrophotometer with 1 cm cuvette. Staff training time required.

$14.00/sample

Microbiological testing

$7.00/plate

pH, conductivity

$3.00/sample

Chlorophyll-a/phaeophytin

$20.00/sample

UV/Vis spectroscopy

$10.30/hour

Soil/Sediment Analysis

**Antecedent moisture**

$7.00/sample

**Particle size (texture)**

$25.00/sample

**Total Suspended Solids**
Volatile suspended solids also available at an additional charge of $3.50/sample.

$7.00/sample

Research Flume

We welcome new collaborative research projects! Please contact Dr. Michelle Soupir about using this space.

Other Analytes

$14.00/sample