

**The Centre for Environmental Monitoring (CEM) develops analytical systems and remote monitoring technologies and provides research and technical services to support the needs of mining and other resource industries.**

## **CEM EXPERTISE**

### **Environmental Systems Monitoring**

- On-site analytical systems development
- Development of small sample analysis technology
- Remote data transmission
- Groundwater and emissions monitoring
- Tailings dam stability monitoring
- Impact of anthropogenic metals on ecosystems
- Movement and speciation of metals in ecosystems
- Sensor development and testing



### **Remediation of Mine Sites**

- Application of safe, legally-compliant and economical methods by community-minded environmental teams

### **Environmental Data Management and Interpretation**

- Collection, management and interpretation of environmental monitoring data
- Spectral data image analysis
- Models and visualization



### **Ecotoxicological Research**

- Metal mobility in perturbed systems
- Radio-nuclide transfers and transformations
- Waste biodegradation research

### **Mine Operation Effects Monitoring**

- Emissions monitoring
- Speciation of metal particulate emissions
- Development of isotopic monitoring techniques
- Metal phytoavailability

### **Analytical Method Development**

- Applications of micro beam XRF
- Applications of micro-sample introductions to ICP-AES and ICP-MS
- Development of continuous flow microwave digestion systems

### **Geological Monitoring**

- Geosensing for grade estimation

#### **For more information contact:**

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