



FIRST FOR HEALTH, SAFETY
AND ENVIRONMENTAL

firstelements.ca

FirstElements

First Elements Inc. was founded in 2006 and consists of an interdisciplinary team of professionals that hold baccalaureate and master’s degrees in environmental engineering sciences, biology, and chemical engineering.

First Elements provides expertise to their clients in a wide range of sectors including: Industrial Manufacturing, Commercial, Infrastructure, Construction and Residential.

Our team of experienced consultants respond quickly and confidentially, providing thorough assessments that identify areas of risk. We then develop a plan with cost effective solutions that ensures compliance of all industry regulations.

We understand that corporate responsibility, accountability and economic growth work together to build vibrant communities and contribute to a clean healthy environment.

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ENVIRONMENTAL & REMEDIATION

First Elements consists of experienced consultants and engineers that work to identify potential sources of environmental risk and liability for property owners, prospective property buyers or lending institutions. The team at First Elements assess, manage, mitigate or remediate any risks to ensure clients are in compliance with local, provincial and federal regulations.

TRANSACTIONAL DUE DILIGENCE

- Environmental Site Assessments
- Building/Property Condition
- Assessments & Reserve Fund Studies
- Peer Review
- Risk/Liability Assessment & Management
- National or Local Portfolio Assessments
- Multi-Site Portfolio Capability

ENVIRONMENTAL ASSESSMENT

- Phase I, II & III Environmental Site Assessments
- Hydrogeology & Groundwater Management
- Water Quality Sampling & Testing
- Environmental Compliance Audits
- Environmental Data Management
- Construct IT Environmental
- Pollution Prevention & Environmental Management Systems
- Certificate of Approval Permitting

REMEDIATION & DECOMMISSIONING

- Remediation System Evaluation & Feasibility Studies
- Remedial Solutions (in-situ/ex-situ treatment)
- Laboratory & Field Pilot Testing
- Decommissioning Services
- Construction Oversight & Contractor Management
- Performance-Based Contracting
- Environmental Risk Assessment
- Underground Storage Tank

RISK ASSESSMENT

- Human Health and Ecological Risk
- Assessment in support of a Record of Site Condition under Ontario Regulation 153/04
- Due Diligence Risk Assessments
- Problem Formulation & Conceptual Site Models
- Exposure Assessment Modeling
- Toxicological/Chemical Hazard Assessment
- Risk Characterization
- Peer Reviews
- Soil Vapour Intrusion & Indoor Air Quality Assessments

OTHER SERVICES

- Investigations
- Project & Contract Management
- Inspection & Air Monitoring
- Online Hazardous Materials Inventory
- System – HMIS
- Project Management of Remediation
- Indoor Air Quality Investigations & Consulting
- Microbiological (Mould) & Bacteria Investigations
- Asbestos & Microbial Analysis of Bulk, Air & Surface Samples
- Building Science
- Training



EMISSIONS REDUCTION & COMPLIANCE

Responsible discharge of industrial air emissions is compulsory through various Environmental Acts and Regulations.

Achieving compliance may be as simple as submission of an application or report, or as complex as negotiating approvals or implementing pollution controls. First Elements can assess the issues and provide effective solutions.

AIR PERMITS, REG. 419 & CONTAMINANT REPORTING

- Ministry of the Environment (MOE)
Certificate of Approval Permits
- NPRI Reporting
- Compliance Assessment
- Self-Contamination Assessment
- Emission Summary & Dispersion
Modelling Reporting
- Emission Inventory Preparation

TOXICS REDUCTION PLANNING

- Phase I, II & III Environmental Site Assessments
- Hydrogeology & Groundwater Management
- Water Quality Sampling & Testing
- Environmental Compliance Audits
- Environmental Data Management
- Construct IT Environmental
- Pollution Prevention & Environmental
Management Systems
- Certificate of Approval Permitting

ODOUR SAMPLING & ANALYSIS

- Dilution & Neat Sampling
- Olfactometry (Odour Evaluation)
- Detection & Recognition Analysis
- Odour Characterization
- Neighbourhood Impact Assessment

POLLUTION ABATEMENT

- Turn-key Supply or Project Management
- Abatement Strategy Development
- Control Technology Assessment
- Performance Testing

NOISE & VIBRATION

- Environmental Noise Compliance Assessment & Audit
- Industrial Noise & Vibration Monitoring
- Noise/Vibration Abatement & Control Strategies

INDUSTRIAL VENTILATION

- Ventilation Assessment & Design Local &
General Exhaust Systems Supply Air Systems
Custom Engineered Hoods & Enclosures
- Hazardous Location Ventilation
(explosive vapour, dust, etc.)
- Project Management & Turn-key Supply

OCCUPATIONAL HEALTH & SAFETY

- OH&S Policy & Program Development
- Workplace Training
- Air Monitoring Surveys
- Noise Monitoring Surveys
- Designated Substance Assessments
- Exposure Control Strategies



HAZARDOUS MATERIALS

Our team of experts conduct assessments to identify hazardous materials for regulatory compliance prior to the transfer of property, renovation, or demolition of residential and commercial buildings.

HAZARDOUS MATERIAL IDENTIFICATION PROCESS

- Assessments for regulatory compliance or property transfers
- Complete Hazardous building materials management and abatement programs, from inspection, design, tendering and project management services
- Indoor air quality and microbial contamination investigations, management and remediation plans
- Comprehensive environmental laboratory services including asbestos, bacteria (E. Coli, Legionella), mould and lead
- Training and education, from awareness seminars to comprehensive multi day training for managers, workers and contractors

ENVIRONMENTAL LABORATORY SERVICES

- Accredited testing for asbestos
- Lead analysis
- Accredited testing for bulk, air, surface and water analysis of mould
- Mould in bulk, air, swab, and water samples
- Analysis of materials for bacteria, E. Coli and Legionella

FLUID MANAGEMENT & GAP ANALYSIS

Our Gap Analysis Audit lets us quickly determine where we can drive measurable improvement. Once we collect our data and interpret the analysis of your existing fluids, we present a step-by-step plan with costs/benefits identified.

IDENTIFICATION, HANDLING, AND REMOVAL MANAGEMENT

- Radon
- Asbestos Containing Materials (ACM)
- Mould
- PCBs
- Mercury
- Lead
- Microbial Contamination

HAZARDOUS BUILDING MATERIALS ABATEMENT

- Assessment prior to renovation or demolition
- Project design and specification services
- Contract and Project Management
- Demolition Consulting
- Inspection services and air monitoring



OF THEIR TIME INDOORS AT HOME, AT WORK AND IN RECREATIONAL ENVIRONMENTS.

Most people, however, are unaware of the effects that poor indoor air quality can have on their health.

INDOOR AIR QUALITY & MICROBIAL CONTAMINATION

First Elements provides residential indoor air quality monitoring for individuals who have concerns about or have the desire to improve indoor air quality at home.

- Investigations & Testing
- Remediation Planning & Project Management
- Development of Control & Prevention Strategy
- Training Services for Managers and Contractors
- Expert Witness Services



OCCUPATIONAL HEALTH & SAFETY

First Elements offers a multi-disciplinary approach made up of Certified Industrial Hygienists (CIH), Registered Occupational Hygienists (ROH), Professional Engineers, Canadian Registered Safety Professionals (CRSP) and other qualified technologists and laboratory staff to help you meet and manage your OH&S goals. Whether it's working with you on a single project or an ongoing program; we will help you make sense of the complex regulatory climate and take the worry out of OH&S.

OH&S MANAGEMENT

- OH&S Policy & Program Development
- OH&S Auditing
- OH&S Management System Assessment
- Training Needs Assessment
- Compliance Plans
- Advisory Services & Safety Committee Management

TRAINING PROGRAMS

- Supervisor Competency
- WHMIS
- Confined Space Entry
- Respiratory Protection
- Lab Safety
- Heat Stress
- Job Hazard Analysis
- Designated Substances (e.g. lead; silica)
- Spill Response
- Chemical Awareness (modular course)

OCCUPATIONAL HYGIENE & SAFETY

- Air Monitoring Surveys
- Noise Monitoring Surveys
- Designated Substance Assessments
- Workwell Consulting
- Confined Space Consulting Programs
- Hazard Assessment Plans/Permits/Procedures
- Illness Investigation
- Lighting Surveys
- MSDS & WHMIS Label Preparation
- Exposure Control Strategies
- Spill Response Plans
- OH&S Reviews of New Products
- Job Hazard Analysis
- Ventilation Assessment
- Analytical Services

ENVIRONMENTAL AIR & NOISE

- Air Pollution Abatement
- Odour Analysis
- Product Off-Gassing (VOCs & Odour)
- Certificate of Approval (Air & Noise) Permitting
- Compliance Management Programs
- O. Reg. 419 Compliance
- Industrial Ventilation
- Noise & Vibration Assessment
- Noise Abatement
- Regulatory Reporting
- Stack Testing
- Atmospheric Dispersion Modelling
- Cooling Tower (Legionella) Self – Contamination Modelling



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