aeon Management Inc.
Environment, Health & Safety Specialists

Mobile Lab Services

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Accurate real time laboratory results during an environmental site investigation or remediation can be an invaluable tool for directing field work and ensuring adequate information is collected. Using ultraviolet fluorescence (UVF) and x-ray fluorescence (XRF) technologies AEON Management is able support your environmental field work with high quality laboratory data for screening the most prevalent organic and inorganic compounds in soil and water. In addition, when data is downloaded into our GIS based data management and analysis software, real time site-wide data maps and cross-sections can be generated to show contaminant trends and information gaps.

Analysis

For UVF, target compounds include TPH, total BTEX, PCB's and PAH's in both soil and water. Detection limits vary depending on dilution but generally meet the most stringent MOE cleanup criteria.

Detection Limits for Organics in Soil or Water

Compound	Calibration Std. MDL (ppm)	MOE Table A Criteria for Soil (ppm)
Total BTEX*	<0.1	0.24 (Toluene)
TPH	<0.1	100
Total PAH*	<0.5	1.2 (Benzo(a)Pyrene)
PCB	<1.0	5

* Site specific UVF data can be used to correlate response factors with traditional laboratory results to target individual BTEX and PAH compounds.

For XRF analysis target compounds include 15 "standard" elements that can be expanded to 24 by changing the radioactive source. Only effective for use in soil or sediments, detection limits vary based on site conditions and soil type. For priority compounds such as lead and arsenic, detection limits meet the most stringent MOE cleanup criteria. Detection limits for reference calibration standards on 5 of 24 available elements include:

Detection Limits for Inorganics in Soil

Compound	Calibration Std. MDL (ppm)	MOE Table A Criteria for Soil (ppm)
Nickel	150	150
Copper	60	150
Arsenic	15	20
Lead	20	200
Mercury	25	10

Screening level results can be available in 5 minutes or less per sample. Maximum number of samples analyzed and reported generally averages 40-50/day. Our mobile laboratory is completely self contained and comes equipped with the most commonly required sampling and analytical supplies. Readily transportable, analytical work can be completed at remote sites on a worldwide basis.

Per unit analytical costs vary on sample volume and target contaminant but are much less than comparable laboratory charges. Field support and travel expenses are extra but are similar to those normally required in completing site work.

Services Offered

AEON Management offers a range of services in support of their mobile lab work that can be tailored to meet a client's requirements. These include:

- Soil sampling, identification and logging
- Groundwater sampling
- Site characterization
- Data compilation, analysis and reporting