

Environment and the Mining Industry

Amid growing public concern for environmental protection, stronger laws and regulations have come into effect. As a result, mining companies have taken on greater responsibility for the environmental impact of their activities, including day-to-day operations. At GENIVAR, we provide our clients with expert knowledge of the statutory framework governing the mining industry's entire range of activities, from exploration to site restoration.

For more than 20 years, GENIVAR has played an active role in the environmental protection field, with over 100 experts working in a variety of disciplines. Our cutting-edge expertise is directly applicable to mine development, operations and decommissioning activities.

services

Management

- Site selection using XEOS® high-resolution aerial imagery
- Project notices, environmental assessments and certificates of authorization (Canadian Environmental Assessment Agency)
- Implementation of environmental management systems
- Environmental audits
- Development of emergency response plans
- Dike/dam safety inspections
- Mine closure plans
- Mine effluents

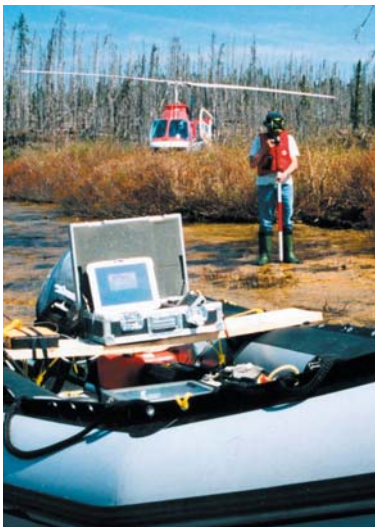
Receiving environment

- Biodiversity studies
- Human/environmental risk assessments
- Environmental effects monitoring (EEM)
- Aquatic environmental effects monitoring (AEEM)
- Studies on the loss/modification of terrestrial/aquatic habitats
- Habitat compensation programs
- Threatened/endangered species studies
- Air emissions management
- Environmental impact assessments
- Surface/groundwater monitoring

Mine site

(including waste rock piles, tailing ponds and effluents)

- Management/treatment of process water, mine water, acid drainage and drainage basins
- Water balances and 1D, 2D and 3D hydrodynamic modeling
- Ecotoxicological studies
- Contaminated soil management/restoration
- Waste characterization/management
- Thiosalt management
- Greenhouse gas management
- Revegetation programs
- Site restoration
- Tailing pond design



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> XEOS® high-resolution aerial imagery

XEOS® is a unique and innovative technology developed by GENIVAR that allows for easier, more cost-efficient management and site selection (access roads, energy corridors, tailing lines/ponds, etc.). In addition, high-resolution photos provide a level of detail that is clearly superior to other products on the market. This technology also simplifies the management of site operations and restoration. With just a click of a mouse, images of the area in question appear within a customized geographic information system (GIS). These images make it easier to characterize the mine site or body of water, while facilitating the management of mine tailings.

Metal Mining Effluent Regulations (MMER)

Under the federal government's new Metal Mining Effluent Regulations (MMER) adopted in December 2002, all metal mines are required to implement an aquatic Environmental Effects Monitoring (EEM) program. Pulp and paper mills were the first companies in the industrial sector to carry out EEM studies in receiving environments. Since EEM programs were first introduced, GENIVAR has conducted 24 such studies (Cycles I, II and III) on behalf of pulp and paper companies in various regions of Quebec. Thanks to our EEM experience in the pulp and paper sector, in addition to other monitoring studies in aquatic environments, GENIVAR can meet the needs of metal mining operations, allowing them to comply with all EEM program requirements.



Expertise

- Aquatic fauna
- Ecotoxicology
- Vegetation and wetlands
- Avifauna
- Relations with First Nations and non-native communities
- Shoreline restoration
- Environmental impact studies
- Environmental monitoring
- Environmental communications
- Restoration of contaminated sites
- XEOS® high-resolution aerial image



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