

01 Planning

- Concept Studies & Site Selection
- Definition & Cost Estimating
- Engineering Studies & FEED
- Agency Strategy & Negotiations
- Landowner & Public Engagement
- Regulatory & Municipal Permitting

02 Strategy and Markets

- Economic and Financial Analysis
- FP&A Support
- Market Research
- Due Diligence and Investment Reviews
- Longterm Planning

03 Mine Studies & Designs

- Mineral Exploration Support
- Geological Modeling & Resource Estimation
- Mining Studies
- Open Pit & Underground Design Optimization
- Mining Equipment Selection
- Mine Plan & Schedule Optimization
- Concurrent Reclamation Planning
- Reserves Estimation
- Compliance Reporting (NI 43-101, S-K 1300, JORC)
- Third-Party Reviews
- Operations Planning Support
- Mine Plan Permitting Support

04 Surface Infrastructure

- Haul Roads & Access Roads
- Power Supply & Distribution
- Railways & Rolling Stock
- Ports, Stockyards & Shiploading
- Accommodation Camps
- Airstrips & Facilities
- Sewage & Wastewater
- Solid Waste Management
- Administration & Offices
- Mine Dry, Workshops & Warehouses
- Watercourse Assessment & Restoration
- Communications

05 Underground Infrastructure

- Crushing & Picking
- Shaft Hoisting Systems
- Incline Conveying
- Ventilation Equipment
- Dewatering Systems
- Mechanical Mine Services
- Electrical Distribution Systems
- Instrumentation & Controls
- Compressed Air Systems

06 Plant Engineering

- Process Modifications
- Plant Conveyors
- Overland Conveyors
- Crushing & Screening
- Stockyards & Loadouts
- Mine Services
- Balance of Plant
- Slurry Pipelines
- Structural Assessment & Repair

07 Water

- Water Supply & Withdrawal
- Water Transportation & Storage
- Metals & Hydrocarbon Removal
- Nutrient Removal
- Water Quality & Correction
- Site Water Balance
- Stormwater Management
- Sediment Control
- Flood Management
- Advanced Analytic Testing
- Ultra-Fine Filtration
- Potable Water Systems
- Water Stewardship Programs
- Water Quality Modelling (GoldSim)

08 Tailings & Dams

- Tailings Storage Facilities / Transport
- Design (All Stages), Construction, Operations Support, Closure & Post-Closure
- Sub-Aerial, Subaqueous & Submarine
- Paddock, In-Pit, Central Discharge
- Conventional, Thickened, Paste & Filtered Dewatered & Dry Stacked
- Tailings Dams / Embankments Design (All Raise Types)
- Tailings Deposition Planning
- Tailings & Waste Rock Co-Disposal /Co-Mingling
- Water / Effluent Retention Dams (Composite & Concrete)
- Hydrotechnical Structures (Spillway, Decant Towers & Underdrainage)
- Geosynthetic Barriers
- Surveillance, Maintenance & Emergency Preparedness
- Dam Safety Reviews & Inspections
- Third Party / Independent Design Reviews
- FMEA / Risk Management
- Engineer of Record Services
- Expert Technical Guidance (e.g., ITRB)

AECOM brings over 100 years of mining industry experience.

As a trusted partner to mining companies and public agencies, we advance projects across diverse geographies and operating contexts. We integrate approvals and community engagement, mine water, tailings and geotechnical expertise, enabling infrastructure, program management and due diligence to move complex mining projects forward with confidence.



09 Ground Engineering

- Site Investigations (Geotechnical & Hydrogeological)
- Geologic Surveys
- Deterministic & Probabilistic Seismic Hazard Assessments
- Ground Improvements / Freezing
- Slope / Mine Waste Dump / Heap Leach Stability
- Retaining Structures
- Geotechnical Engineering Recommendations (Civil-Mine Infrastructure)
- Foundation Designs (Mine Structures)
- Hydrology & Site-Wide Water Balance
- Geochemistry (ML/ARD & Metal Attenuation Studies)
- Groundwater Fate & Transport Modelling
- Mine Dewatering (Open Pit & Underground)
- Ground Freezing
- Horizontal Directional Drilling
- Geological Assessments

10 Environment Services

- Environmental Planning / Permitting
- Endangered Species Surveys / Consultation
- Impact Avoidance & Mitigation
- Wetland & Stream Delineation
- Spill Prevention, Control & Countermeasure Plans
- Compliance Checklists & Manuals
- Regulatory Compliance Programs
- Emerging Contaminant Expertise (PFAS)
- Air Quality Modelling Assessments & Ambient Monitoring
- Climate Assessments
- Noise & Vibration Monitoring
- Acoustic Modelling & Noise Control Evaluation
- Archaeological Investigations & Reporting

11 Construction Services

- Project Execution (EPCM, EPC, DBB)
- Safety Management
- Constructability Reviews
- Planning, Scheduling & Cost Estimating
- Bid Package Preparation & Management
- Contract Administration
- Quality Assurance & Inspection
- Pre-Commissioning & Commissioning
- Compliance Monitoring Programs (Soil, Water, Vegetation, Wildlife)

12 Operations

- Asset Management & Integrity
- Operational Readiness
- Commissioning Assistance
- Liability Portfolio Management
- Unmanned Systems
- GIS / GPS / Drone Services
- Noise, Vibration & Dust Compliance Monitoring & Reporting

13 ESG, Sustainability & Indigenous Relations

- Corporate-level ESG Strategy Development & Implementation
- ESG Disclosure Readiness, Development & Enhancement (ISSB, SASB, CDP, GRI, UNSDGs, etc.)
- KPI/Target Setting, Tracking & Reporting
- Water Conservation & Stewardship
- Energy Usage & Efficiency
- Renewable Energy Assessments
- Climate Change & Resilience Planning
- Corporate & Regulatory GHG Reporting (Scope 1, 2 & 3)
- Indigenous Relations & Partnership Building
- Nature Based Solutions
- Workforce Health & Safety
- Community Relations & Human Rights

14 Closure and Reclamation

- Closure Planning & Remediation
- Waste Management (Solid, Tailings, Water)
- Surface Reclamation
- Regulatory Approvals & Permitting
- Compliance Monitoring & Annual Sampling/Reporting
- Predictive Water Balance & Water Quality Monitoring
- Hydrogeological, Geochemical & Transport Modelling
- Demolition Oversight & Management
- ML/ARD & Metal Attenuation Studies



01 Planning

Our staff have delivered initial, selective and definition phase engineering services for a number of mining clients in the resource sector, for projects in North America and abroad.

PROJECT EXAMPLES:

- Tower Project and Bucko Mill Permitting, for Rockcliff
- BRE Project Concept/PFS/FS/EPCM, for Teck Coal
- Environmental Impact Statement/Waste Management Plans, Proposed Pebble Mine
- Water Treatment Evaluation/Sludge Treatment System, for Proposed Pebble Mine



02 Strategy and Markets

ECOM's team of mineral economists, market analysts, and mining professionals provides strategic insights that support investment decisions, project development, and long-term value creation across the mining industry. Our experts combine commodity market intelligence, supply-demand forecasting, project valuation, financial modeling, and strategic assessments to help clients evaluate opportunities and navigate evolving market conditions. From early-stage project screening through development, operations, and portfolio optimization, we deliver the economic and commercial analyses needed to support critical business decisions for operators, investors, lenders, and government agencies across all commodities.

PROJECT EXAMPLES:

- EBASA Panama Copper Smelter Market Entry
- Argentina Mining Support Infrastructure Investment Study for Critical Minerals



03 Mine Studies and Designs

AECOM's team of mining engineers and resource geologists have worldwide experience in the exploration, evaluation, development, and optimization of mining projects. Our experts in geochemistry, statistics, 3D modeling, mine design, mine scheduling and mineral economics advance projects from early-stage exploration to mineral resource and reserve estimates. We draw on our cross-disciplinary and minerals experience to provide third party reviews as well as operational and permitting support across all commodities.

PROJECT EXAMPLES:

- Lake Cuitzeo Project, Gap Analysis, Mexico



04 Surface Infrastructure

The AECOM team has significant experience in successfully delivering projects that incorporate non-process infrastructure for mining. We deliver concept design through to detailed design for above and below ground services and mine haul roads utilizing our Centers of Excellence across our global team including Canada, USA and Australia. We also have extensive experience with design of mine accommodation camps, airports, administration offices and warehouses. Our local marine, rail and mine engineering disciplines for bulk ports, ship-loading and associated stockyards are supported by our transportation and construction teams.

PROJECT EXAMPLES:

- Jadar Residue Haulage Study, for Rio Tinto
- New Britannia Accommodation Camp, for Hudbay Resources
- Rail Operations Review, for BHP Jansen



05 Underground Infrastructure

Our project managers are experienced in various aspects of underground mine infrastructure and ore clearance systems. We have experienced engineering leads for materials handling, dewatering, electrical and instrumentation. We leverage our global underground mining Center of Excellence in Australia to provide support to our North American underground project team on critical studies, reviews and benchmarking in the early phases of a project.

PROJECT EXAMPLES:

- Red Chris Underground Materials Handling PFS, for Newcrest Red Chris Mining Ltd.
- Raw Coal Tunnel Rehabilitation EPCM, for Teck Coal



06 Plant Engineering

Our staff deliver all these services in-house except for the process engineering discipline. We engage specialist subconsultants where needed for process projects which gives us the ability to deliver with an integrated team for a wide variety of process types and emerging technologies.

Our project managers and project management teams are experienced in managing process plant, conveyance, pipeline and the balance of plant projects. Our low-cost global design centers assist with detailed engineering and modelling on larger projects. We also have experienced subject matter specialists in materials handling.

PROJECT EXAMPLES:

- New Britannia Mill Revitalization Project, for Hudbay Minerals
- BRE Conveyance PFS, for Teck Coal



07 Water

AECOM's large North American Water team provides all mine water engineering services locally. We have a variety of water treatment technology specialists globally, bringing their expertise to bear on any projects across North America to ensure our clients have access to the right technology and the latest innovations globally.

PROJECT EXAMPLES:

- In-stream Water Treatment of Chromium and pH Correction, for Teck Coal
- Water Supply Pipeline to Jansen Project, for SaskWater
- Flin Flon TMA Water Quality Study, for Hudbay
- Giant Mine - Mine Water Intake, for PWGSC
- Water Balance/Dry Stack Tailings Facility Expansion, Northern Star Resources
- Seawater Treatment Plant Expansion Study, ConocoPhillips
- Stibnite Gold Project Water Treatment Evaluation, for Perpetua Resources
- Pilot Study for Acid Drainage Reduction Technology, for Confidential Client
- Copper Mine Rules Development Advocacy, for Freeport - McMoRan and Copper Flats
- Groundwater Corrective Action Program, for Homestake Mining
- Groundwater Modeling/Impact Assessment, for EPA Iron Mountain Mine
- Water Treatment System Engineering for Resolution Copper Mining



08 Tailings & Dams

Our tailings practice is recognized globally providing tailings management services to several large mining companies including BHP. Our North American dams team includes project managers and engineering disciplines such as tailings geotechnical, hydrology, hydrotechnical, civil, etc. We are actively pursuing new opportunities for Engineer of Record, independent dam stewardship board roles, and operations support roles in tailings management for active and inactive mine sites.

Our Americas Center of Excellence for tailings in Denver, Colorado provides senior tailings review board members and additional project resources, if needed.

PROJECT EXAMPLES:

- True North Tailings Facility Condition Assessment, for 1911 Gold
- Jadar Tailings Dam and Residue Dry Stack PFS, for Rio Tinto
- Continental Mine Yankee Doodle Tailing Impoundment Engineering and Risk Assessment, for Atlantic Richfield
- Continental Mine Berkeley Pit Slope Stability Evaluations, for Atlantic Richfield
- Tenmile Creek Mine/Mill Waste Pile Removal, for U.S. EPA Region 8



09 Ground Engineering

Our staff deliver comprehensive geotechnical and geologic services to the mining sector.

PROJECT EXAMPLES:

- Giant Mine, Groundwater Investigation and Water Quality Models, for PWGSC
- Surface and Underground Geotechnical Investigation, for Teck Coal
- Britannia Mine Post-Closure Geochemistry, for BC MFLNRO



10 Environment Services

Our environmental services help industrial and public sector clients around the world balance growth with resiliency — achieving compliance and reducing, or eliminating, risks while protecting our natural environment. This capability includes delivering environmental and permitting services required for mining.

PROJECT EXAMPLES:

- Hydrocarbon Emissions Air Quality Monitoring, for Suncor (Oil Sands)
- Stall Mill Upgrades Notice of Assessment, for Hudbay
- Environmental impact assessments (ESEE), for Agnico Eagle
- Anderson Tailings TIA Monitoring, for Hudbay



11 Construction Services

Our construction management team has extensive experience in delivering EPCM projects in the resource sector and has executed projects utilizing other commercial models including owner's engineer. As needed, the team is supported by additional resources and/or project delivery specialists from across our North American offices.

PROJECT EXAMPLES:

- Raw Coal Tunnel Rehabilitation EPCM, for Teck Coal
- New Britannia Mill Construction Support, for Hudbay Minerals



12 Operations

Our staff deliver and provide secondees for the owner's team to assist as needed.

PROJECT EXAMPLES:

- Mill Commissioning and Operational Readiness, for Hudbay Minerals
- Uranium Mine and Processing Site, for Chemical Manufacturer
- Emergency Action Plans for Water Supply Reservoir/Tailings Dams, Confidential Client



13 ESG, Sustainability & Indigenous Relations

We help organizations protect the environment, enhance communities, integrate sustainable development into everyday business and improve governance. So our clients' ambitions can turn into practical roadmaps to achieve their goals.

PROJECT EXAMPLES:

- Greenhouse Gas and Fuel Consumption Study, for Rio Tinto Alcan
- Air Quality Improvement Program, for IOC Canada



14 Closure and Reclamation

We have a large mine closure and reclamation practice in North America and are particularly experienced in mine closures in cold weather conditions. AECOM has developed our global D4 process for closure which allows for the safe and environmentally responsible closure and demolition of mining assets which can be delivered by our North American team.

PROJECT EXAMPLES:

- Giant Mine Reclamation Program, for PWGSC
- Atlin Ruffner Mine Closure, for BC MFLRNO
- Underground Bulkhead 36 Design, for PWGSC
- Remedial Investigation / Feasibility Study, for Confidential Mine
- Engineering Evaluation / Cost Analysis, Conceptual Design, Confidential Mine
- Recovery Plan / Raw Water System Treatment following Tailings Dam Failure
- Remedial Investigation / Demolition/Remediation, for EPA Dewy
- Faro Mine Remediation Program, for PWGSC
- Toquaht Bay Tailings Remediation, for BC MWLRS
- Britannia Mine Remediation Project, for BC MWLRS

AECOM brings over 100 years of mining industry experience.