

Innovative solutions for a rapidly changing industry



Advancing underground excellence.

We wrote the book on it. The Hard Rock Miner's Handbook offers tricks of trade, rules of thumb, case histories and example problems.

stantec.com/en/ideas/topic/energyresources/stantecs-hard-rock-minershandbook

Where there is an obstacle, we see a challenge. We exercise creative thought, developing designs as individual as the people and projects we touch. **Behind every solution you will** find deep thinking.



Service to the core

The goals of our clients are at the center of everything we do.

To form a solid foundation for all we do, before we begin any work, we take steps to understand the core needs of your business. From there, we develop solutions tailored to your goals. From front-end studies to mine closure and reclamation, our talented people have experience in a variety of commodities in very diverse geographic locations and climatic conditions.

Project success results from a solid relationship. We have the knowledge and experience to work with you to explore opportunities and develop solutions for the most complex projects, solutions made possible by the right people working with you. This approach ensures that our designs deliver results.



We have delivered projects under a wide variety of climatic, social, environmental, and regulatory conditions - at mines around the world.

Practicing the art and science of mining engineering for over 30 years

We bring experience, practical application, and imagination to every engagement. As a result, our team has successfully completed projects for the world's largest mining companies at mines around the world.

We understand what's important to you: safety, productivity, quality, timing, and cost management. We share these priorities and build them into each and every project. We also take a collaborative approach to every project, working with you to develop solutions that meet your goals.

Our skilled team members have experience with mining studies and mine design, shaft and hoisting system design, and the design of surface and underground mine infrastructure. And don't forget the design and construction of waste systems like tailing storage facilities. Whether it's as basic as mine plant design or as precise as process instrumentation, we have the people with the engineering and technical capabilities to safely and responsibly maximize the efficiency and profitability of any mining operation.



In sync with natural and social environments

Together, we keep the needs of your business and our environment in mind at each turn of the road.

We go beyond "working" with the mining industry. We share your perspectives, values, and knowledge, and in the process, create a community behind every project. We're biologists, geologists, archaeologists, hydrologists, hydrogeologists, engineers geochemists, regulatory experts, risk assessors, and toxicologists. Our roles on a project may be different, yet together we all share a commitment to high quality project outcomes.

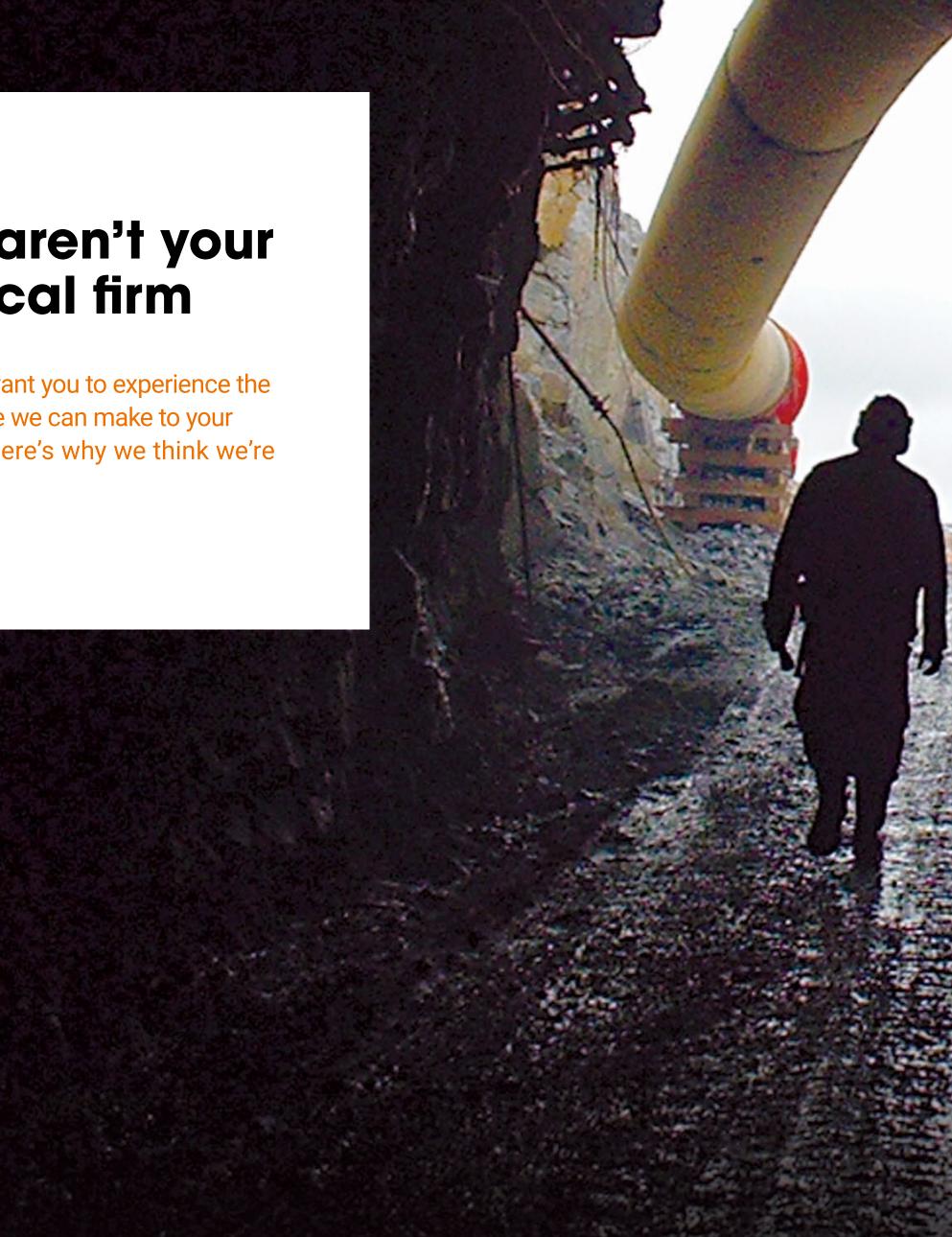
Our deep experience allows us to think of creative solutions for addressing regulatory, environment, and community challenges. We have experience with a broad range of commodities and at all stages of the mining lifecycle–exploration, planning, operations, and closure– we keep your projects moving forward, safely.



Stantec did the design and construction QA/ QC for the tailing dam at Cerro Verde Mine in Peru.

We aren't your typical firm

And we want you to experience the difference we can make to your project. Here's why we think we're a match.



COMMUNITY

We build a community behind your project. At the project site or in the office, we work with you. With more than 400 locations across the world, chances are we're already in your neighborhood, but if we aren't, we regularly open project offices to help ensure a project runs smoothly.

CREATIVITY

We go beyond what's been done, to explore what's possible. We challenge ourselves every day to meet your needs safely, innovatively and cost effectively. In our creative process, we provide value and environmentally sound solutions that are delivered ontime and on-budget.

RELATIONSHIPS

You're important. That's why we take the time to get to know you, your business, and your goals. We know that the best relationships are forged from communication and hard work.

Services at every stage

Whether you need one service or many, we can work with you and your team at every stage of a mine's lifecycle.

- Mining Studies
- Mine Planning
- Environmental Approvals & Permitting
- Mine Power
- Shafts & Hoisting Systems
- Material Handling System
- Mine Ventilation Systems
- Project Delivery & EPCM Services
- Operations Consulting
- Water Supply, Management & Treatment
- Hydrogeology and Geochemistry
- Tailing & Mine Waste Management
- Ecological Services and Natural Resource Management
- Transportation Engineering & Logistics
- Site Development & Site Services
- Facility Design & Engineering Surveying & Geomatics
- Geotechnical Investigations
- Telecommunications
- Mineral Processing
- Social Services and Stakeholder Consultation
- Mine Closure Planning & Reclamation



MINING LIFECYCLE

Exploration	_
	Resource
Environmental Baseline & Permitting	
	Mine De Clos
Feasibility Studies & Project Management	
	N Managemen
Civil Infrastructure	
	N Surface and
Process Facilities	
	Opera
Tailings and Waste	
	Closure /
Legacy Remediation	

Assessment

evelopment & sure Planning

/ater Supply / t / Treatment

line Facilities Underground

tions Support

Reclamation

A history of designs that deliver results

From approval and permitting to design and construction management services, we help wherever we can.

PROJECT EXPERIENCE

PotashCorp

Allan Underground Expansion Project, Full EPCM Services, Allan, SK, CAN

BHP

Jansen, EPCM Services for Surface Infrastructure, Shaft, and Near-Shaft Infrastructure, Jansen, SK, CAN

Diavik Diamonds

Lac de Gras Underground Feasibility Study and Detailed Design, Lac de Gras, NWT, CAN

Vale

Prefeasibility (FEL1) Study of the Capre and Victor Mine Sites, The Copper Strategy Project, Sudbury, ON, CAN

Xstrata Nickel

Nickel Rim South Mine Project, EPCM Services, Skead, ON, CAN

Echo Bay Mines

AJ Mine, Baseline Studies, Human Health and Ecological Risk Assessments, Juneau, AK, US

Stantec provided mine water management and treatment services, TSF design and construction

Victoria Gold

Eagle Gold Project, Baseline, Monitoring, and Compensation, Mayo, YT, CAN

Teck

Quintette Project, Complete Permitting, Baseline Studies, Hydrology, Social Impacts and Mine Water Treatment, Northeastern BC, CAN

Glencore

Sukunka, Environmental Studies, Northeastern BC, CAN

Encanto Potash Corp

Muskowekwan Potash Project, Assessment and Permitting, 100 km from Regina, SK, CAN

HDI-Northcliff

Sisson Mine, Assessment and Permitting, Fredericton, NB, CAN

Alderon

Kami (Iron Ore) Project, Scoping Level, Feasibility Studies, Assessment and Permitting, near Wabush, Labrador, CAN

PT Freeport Indonesia

DMLZ Fixed Facilities Design, Indonesia

Glencore

Donkin Export Coking Coal Project, **Environmental Assessment and** Permitting, Donkin, NS, CAN

Newmont

Long Canyon Project, Baseline Studies and 3rd-party EIS, NV, US

Rio Tinto

Holden Mine Closure Studies and Support, WA, US

Gold Fields

Design, Engineering Management, Procurement and Construction QA/QC of a Tailings Dam. Cerro Corona Mine, Cajamarca, Peru

Freeport McMoRan

Design and Construction QA/QC for a 280m High Tailing Dam. Cerro Verde Mine, Arequipa, Peru

Antofagasta Minerals

Detailed Engineering Design of a Tailing Storage Facility. Minera Los Pelambres, Antofagasta, Chile

Kinross

Pre-feasibility Study (PFS) Hydrological Assessments at the Gill Mine, AK, US

Newmont

CERCLA Mine Closure Pemedial Design, Eastern WA, US

Northern Minerals

Baseline Surveys and Impact Assessments for Flora and Fauna. Browns Range Heavy Rare Earth Elements (HREE) Project, Western Australia

BHP

Progressive Closure Plan (PCP) for the Cockatoo Island Mine Site, West Kimberley, Western Australia

Thompson Creek Mining

Baseline Studies and Third Party EIS for Thompson Creek Mine, US

From Mexico to Mongolia

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With offices across the globe, we bring our expertise to our clients regardless of the location.

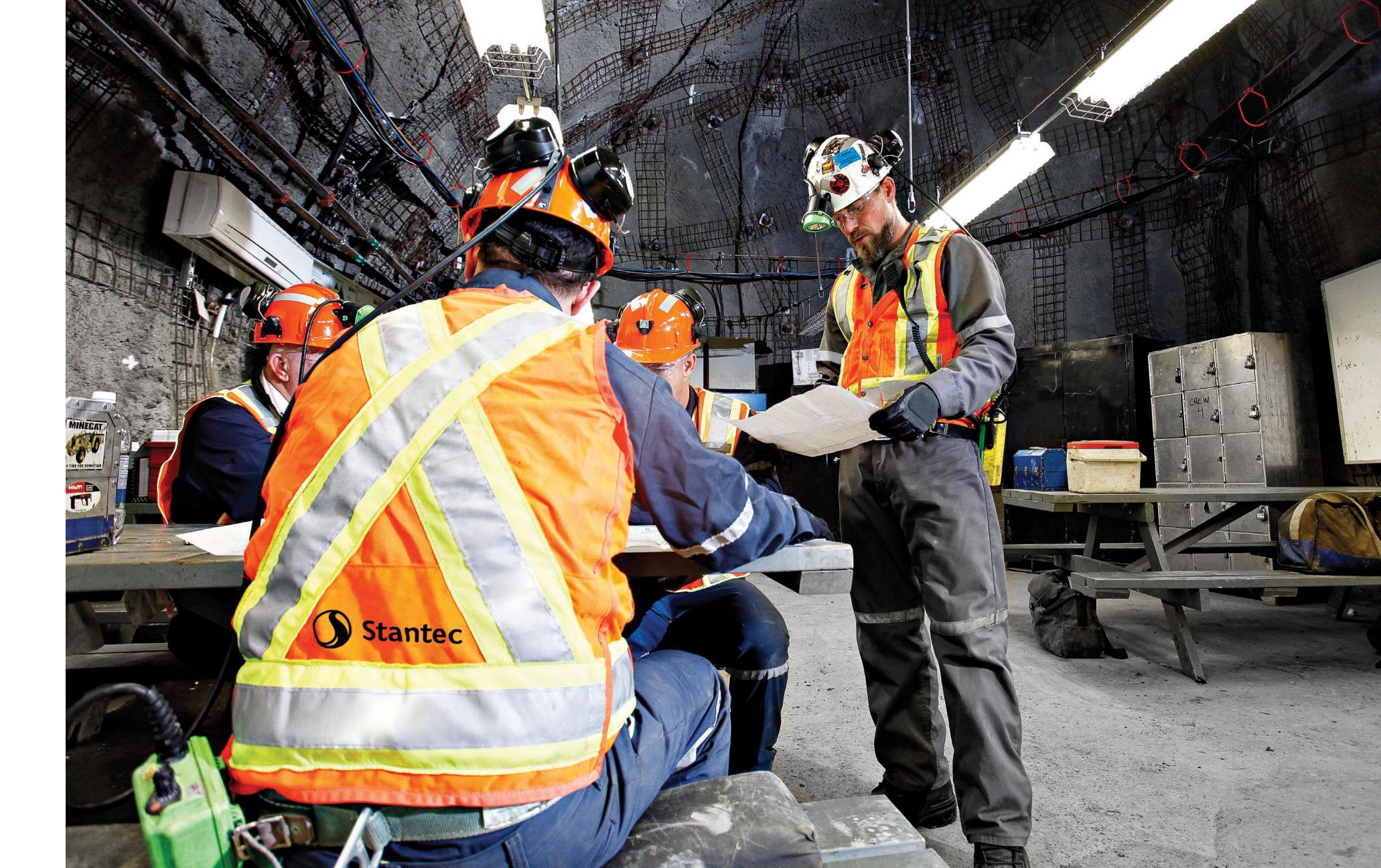


An extension of your team

Stantec offers a community of experts for the support and services you need.

Our team includes specialists in mining engineering, mine water and waste management, as well as specialists in project management, environmental services, power engineering, transportation engineering and logistics, architecture and buildings engineering, surveying, geotechnical services, and community engagement.

Stantec's knowledge and experience has grown dramatically in recent years. With over 22,000 professionals, answers and expertise are always within reach.





Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we servebecause they're our communities too. This allows us to assess what's needed and connect our expertise, to appreciate nuances and envision what's never been considered, to bring together diverse perspectives so we can collaborate toward a shared success.

We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Stantec trades on the TSX and the NYSE under the symbol STN. Visit us at stantec. com or find us on social media.

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Design with community in mind