

MINING

70 1950
2020

Down to Earth.
Up to the Challenge.

Are you looking for technical excellence to help you sustainably develop and operate your projects?

Does that winning combination mean working with a consulting firm that delivers practical technical solutions? A firm to provide you with the environmental services to manage resource development responsibly and meet regulatory requirements? A firm that understands how closure planning and technical studies correlate to provide confidence in identifying and addressing closure risks to achieve completion criteria and relinquishment? And a firm that understands that all of this must be achieved while meeting the needs of your investors?



Klohn Crippen Berger (KCB) is an engineering, geoscience and environmental consulting firm with over 70 years of experience serving clients worldwide.

Our team includes some of the most respected and experienced professionals in the industry, who develop solutions that integrate the responsible use of natural resources through the lifecycle of the facility from exploration to design, operation and closure. Our knowledge includes the application of alternative technologies, which has allowed us to successfully meet project requirements in harsh, remote and physically challenging environments.

OVER 90% OF OUR CLIENTS ARE REPEAT CLIENTS



- TAILINGS
- GEOSCIENCES
- ENVIRONMENT
- INFRASTRUCTURE



INTEGRATED TEAMS & TECHNOLOGIES

KCB integrates the application of engineering and geoscience with environment, community and safety-by-design principles. This approach drives our reputation as a leading-edge provider of professional services.

Apply our services to solve your mine development and operational challenges. Our valued clients, some of whom have worked with us for decades, have trusted us with the design, development and closure of some of the most challenging mining operations across the world.



- ELECTRICAL
- ENVIRONMENTAL
- GEOSCIENCE
- GEOTECHNICAL
- MECHANICAL
- SOCIAL
- STRUCTURAL
- WATER RESOURCES

TAILINGS

KCB helped to revolutionize modern tailings facility design 50 years ago, and our engineering approach continues to be a hallmark of the international practice.

Apply our experience with hundreds of tailings dams to your mining operation. We can help you determine the geological and geotechnical setting of your tailings facilities, and design and monitor the construction of your tailings impoundment and related infrastructure.

We have been trusted with some of the largest (up to 300 m high) technically-challenging tailings storage facilities across the world.



BEST AVAILABLE TECHNOLOGY.....●

CHARACTERIZATION.....●

DEWATERING.....●

LINERS.....●

RISK REDUCTION.....●



ONTARIO, CANADA

GEOSCIENCES



GEOCHEMISTRY.....○

GEOHAZARDS.....○

HYDROGEOLOGY.....○

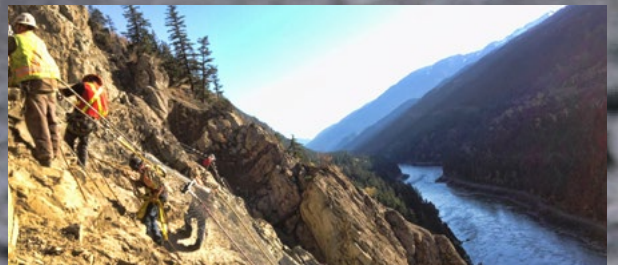
SEISMIC HAZARD ASSESSMENT.....○

SLOPE STABILITY.....○

KCB offers the practical application of geoscience to mining projects locally or internationally in remote and logistically challenging environments.

Apply our geoscience services, including conceptual to detailed design, field investigations, data management, and a variety of technical assessments related to water supply and environmental monitoring to your mining project.

We have in-house engineers and geoscientists with experience in technical planning and logistics, and specialist scientists and modellers experienced in 2D and 3D groundwater flow, unsaturated flow and geochemical modelling.



ENVIRONMENT

KCB applies the environment-by-design principle by integrating environmental considerations into project planning and design to build successful projects.

Work with us to integrate your project with the biophysical environment, from concept to operation to closure. Our teams have worked on hundreds of environmental projects worldwide, including some key infrastructure and resource development projects.



GREENFIELD BASELINE STUDIES
ENVIRONMENTAL ASSESSMENTS
PERMITTING AND SUPPORT
HABITAT COMPENSATION
CONSTRUCTION MONITORING
OPERATIONAL SUPPORT & MONITORING
DUE DILIGENCE AND AUDITING
& COSTING



RESOURCE INFRASTRUCTURE

KCB can help design and develop the necessary resource infrastructure to move people, transmit power and deliver commodities to your processing plant and tailings storage facilities.

Our project experience includes a wide range of resource infrastructure support, from port upgrades to pipelines, roads and bridges. In addition, our mechanical and electrical groups can handle a variety of mine equipment and infrastructure, from flotation cell upgrades to conveyors, control systems and electrical supply.



- TAILINGS DELIVERY SYSTEMS & PIPELINES
- FLUID TRANSFER SYSTEMS & SIPHONS
- POWERLINES & CORRIDORS
- ELECTRICAL, INSTRUMENTATION & CONTROLS
- GEOTECHNICAL & GEOSCIENCES
- MULTI-DISCIPLINE, WATER MANAGEMENT & HEAVY CIVIL



WHERE WE WORK

PROJECT LOCATIONS

AMERICAS

Argentina
Brazil
Canada
Chile
Colombia
Costa Rica
Ecuador
French Guiana
Guatemala
Panama
Peru
USA
Venezuela

ASIA

China
Indonesia
Kazakhstan
Mongolia
Pakistan
Philippines
South Korea
Sri Lanka
Thailand
Vietnam

EUROPE

Andorra
Finland
Netherlands
Romania
Spain
Sweden
Turkey
United Kingdom

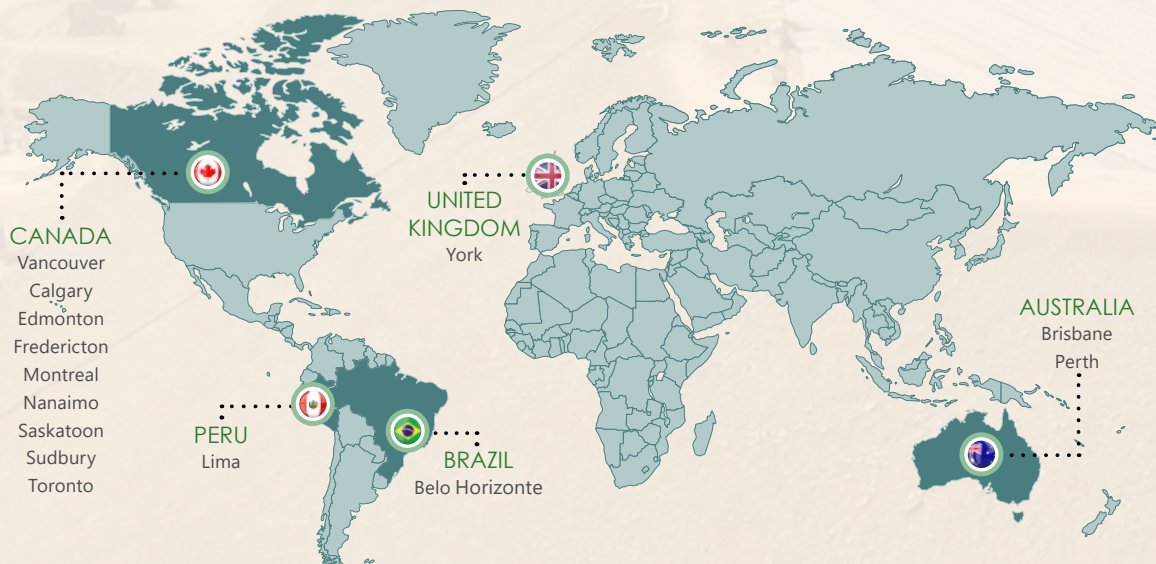
AFRICA

Egypt
Kenya
Madagascar
Mauritania
Saudi Arabia
Uganda

AUSTRALASIA

Australia
Fiji
New Caledonia
Papua New Guinea

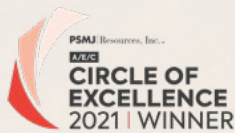
WE HAVE OFFICES IN STRATEGIC LOCATIONS
IN CANADA, AUSTRALIA, PERU, BRAZIL
AND THE UNITED KINGDOM.



HOW WE WORK



Platinum member



ISO 9001
14001
45001

QUALITY
ISO 9001

ENVIRONMENT
ISO 14001

HEALTH & SAFETY
ISO 45001

KCB has a strong reputation for quality work and technical experience in a range of services. Our commitment to excellence is the driving force behind everything we do and, as a result, we are the recipient of multiple national and international awards for major projects and corporate governance. We are committed to sustainability in our business operations and professional services, and we publish our progress in an annual Sustainability Report on www.klohn.com. We strive to balance social, environmental and economic considerations to meet the needs of our clients, the community, our employees and other key stakeholders.

Our business is governed using an integrated management system consisting of quality, health and safety, and environment (QHSE) procedures. Our management system, which meets the requirements of the ISO 9001, 14001 and 45001 standards, steers our business conduct and the manner in which we undertake our projects. Our QHSE policy includes our goals of fostering quality services, promoting a safe and healthy culture, reducing our environmental impact and committing to sustainability.

In addition to the ISO standards, we are guided by the frameworks developed by the Global Reporting Initiative, the Institute for Sustainable Infrastructure, the International Council of Mining and Metals, and the Mining Association of Canada's Towards Sustainable Mining, among others.

To meet our clients' requirements for health, safety, and the environment we subscribe to several subcontractor management systems. We are an approved contractor on Avetta, ISNetworld, Contractor Qualification Network, ComplyWorks and BROWZ.

PAPUA NEW GUINEA



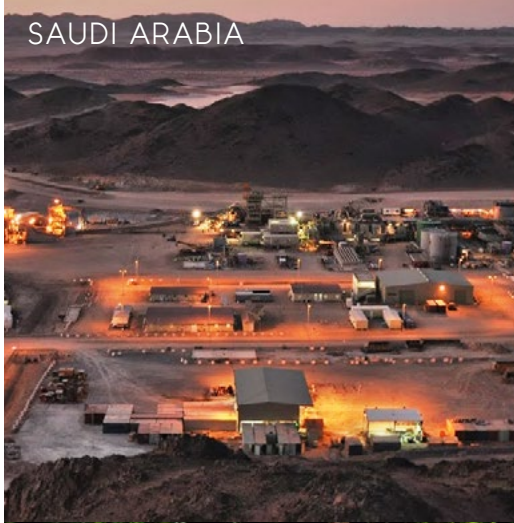
FIJI



MONGOLIA



SAUDI ARABIA



CANADA



AUSTRALIA



PERU

