



# INFRASTRUCTURE

*Down to Earth.*  
Up to the Challenge.

DELTAPORT, BC, CANADA

Klohn Crippen Berger (KCB) is an engineering, geoscience and environmental consulting firm with over 65 years of experience. We provide a full range of services in engineering, geoscience and environmental disciplines to deliver a winning combination to meet your specific needs.

Our team includes some of the most respected and experienced professionals in the industry who work on challenging infrastructure projects. Our knowledge includes the application of alternative technologies, which has allowed us to successfully meet project requirements in harsh, remote and physically challenging environments.

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.



# INTEGRATED TEAMS & TECHNOLOGIES

- STRUCTURAL
- GEOTECHNICAL
- CIVIL-MARINE
- HYDROTECHNICAL
- ENVIRONMENTAL
- MECHANICAL
- ELECTRICAL

# PORTS & HARBOURS

- BERTHING & MOORING DESIGN
- COASTAL & RIVER ENGINEERING
- CONSTRUCTION MANAGEMENT
- FEASIBILITY & PLANNING
- SEISMIC ANALYSIS



For over 65 years, KCB has been active in the planning, design and construction of a wide variety of ports, harbours, and marine terminals.



Our experience ranges from economic evaluations, structural assessments and remedial designs, through to site development, wharf design and site services for major new terminals. Our extensive marine engineering experience will add significant value to your port projects.

# WATER RESOURCES

KCB delivers a complete range of engineering services that enable us to take your projects from conception through to operation. These services include feasibility studies, detailed designs, field investigations and monitoring, contracting, construction administration and inspections, commissioning, site impact assessments and regulatory approvals submissions and support.

Our water resource professionals provide solutions for your hydropower and water management projects, including water diversion and conveyance facilities, water treatment projects, and flood mapping for emergency preparedness. Our environmental assessment services include design of fish passage facilities and monitoring of streamflow, water level and the local climate.

HYDROLOGY & HYDROTECHNICAL .....

RIVER ENGINEERING .....

STORMWATER MANAGEMENT .....

SURFACE WATER MANAGEMENT .....

WATERSHED MANAGEMENT .....



# 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



# MUNICIPAL

KCB offers a complete suite of engineering, environmental, and stakeholder engagement services for municipal projects, while keeping in mind the goals of our clients and their communities. We deliver cost-effective solutions for urban stormwater management, transportation systems, pumping facilities, river engineering, foundation design and slope stabilization.

Our professionals have the skills and experience to investigate soil and groundwater conditions, generate models to simulate and analyze complex processes and design issues, conduct environmental assessments, and obtain regulatory approvals, while applying sustainable best practices.

- FOUNDATION DESIGN
- PUMPING FACILITIES
- RIVER ENGINEERING
- SLOPE STABILIZATION
- STORMWATER MANAGEMENT
- TRANSPORTATION SYSTEMS



# TUNNELS

KCB is one of Canada's leading tunneling and underground engineering consultants. We are involved in many challenging tunnel and underground engineering projects, including railway, hydroelectric, water supply, mining, highway and transit tunnels.

KCB incorporates the latest tunnelling technologies and practices and tunnel ventilation design. We utilize the most advanced design methods including finite element and finite difference programs. We have experience on projects with diverse and challenging geological conditions including gas-bearing strata, extreme in-situ stresses, swelling rock and infiltrating groundwater. Our tunnelling designs have included drill and blast, tunnel boring machine (TBM), roadheader, hydraulic breaker, hand mining and cut-and-cover methods.

●..... CONCEPTUAL & PRELIMINARY DESIGN

●..... GEOTECHNICAL INVESTIGATION & DESIGN

●..... CUT & COVER TUNNEL DESIGN

●..... CONSTRUCTION SUPERVISION

●..... TUNNEL VENTILATION DESIGN

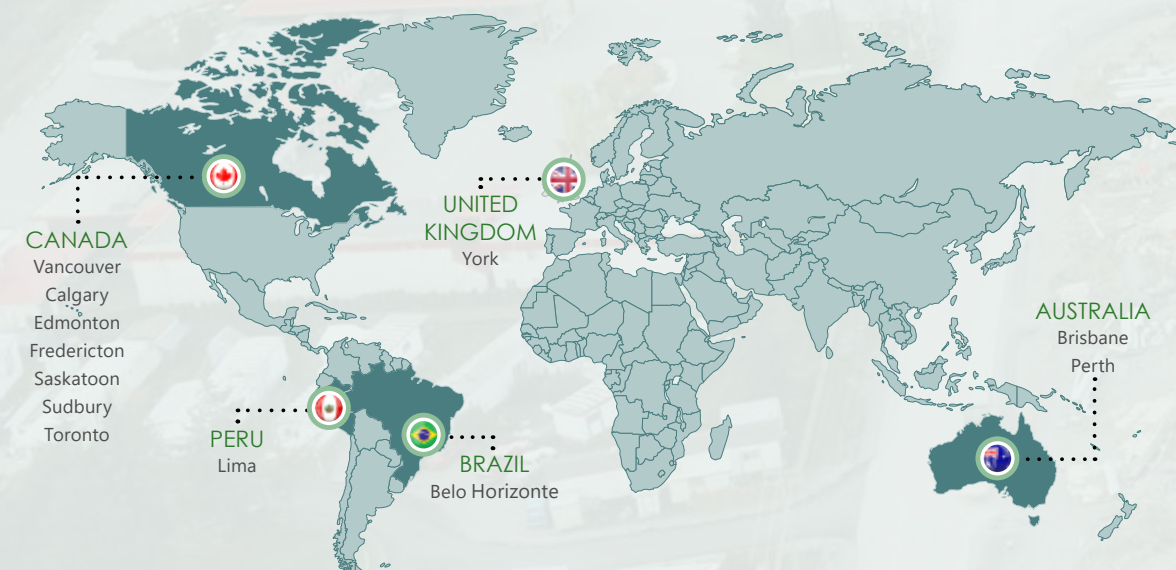


# WHERE WE WORK

## PROJECT LOCATIONS

AMERICAS	ASIA	EUROPE	AFRICA	AUSTRALASIA
Argentina	China	Andorra	Egypt	Australia
Brazil	Indonesia	Finland	Kenya	Fiji
Canada	Kazakhstan	Netherlands	Madagascar	New Caledonia
Chile	Mongolia	Romania	Mauritania	Papua New Guinea
Colombia	Pakistan	Spain	Saudi Arabia	
Costa Rica	Philippines	Sweden	Uganda	
Ecuador	South Korea	Turkey		
French Guiana	Sri Lanka	United Kingdom		
Guatemala	Thailand			
Panama	Vietnam			
Peru				
USA				
Venezuela				

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



# HOW WE WORK



Platinum member



QUALITY  
ISO 9001

ENVIRONMENT  
ISO 14001

HEALTH & SAFETY  
OHSAS 18001

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](http://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, ISO 14001 and OHSAS 18001 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 and OHSAS 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, ISNetwork, Contractor Qualification Network, ComplyWorks and BROWZ.



GLENMORE DAM, AB



CALGARY BOW RIVER WEIR, AB



ESQUIMALT GRAVING DOCK, BC



LOGAN LAKE, BC



CALGARY, AB



DELTAPORT WAY, BC



LOGAN LAKE, BC

