



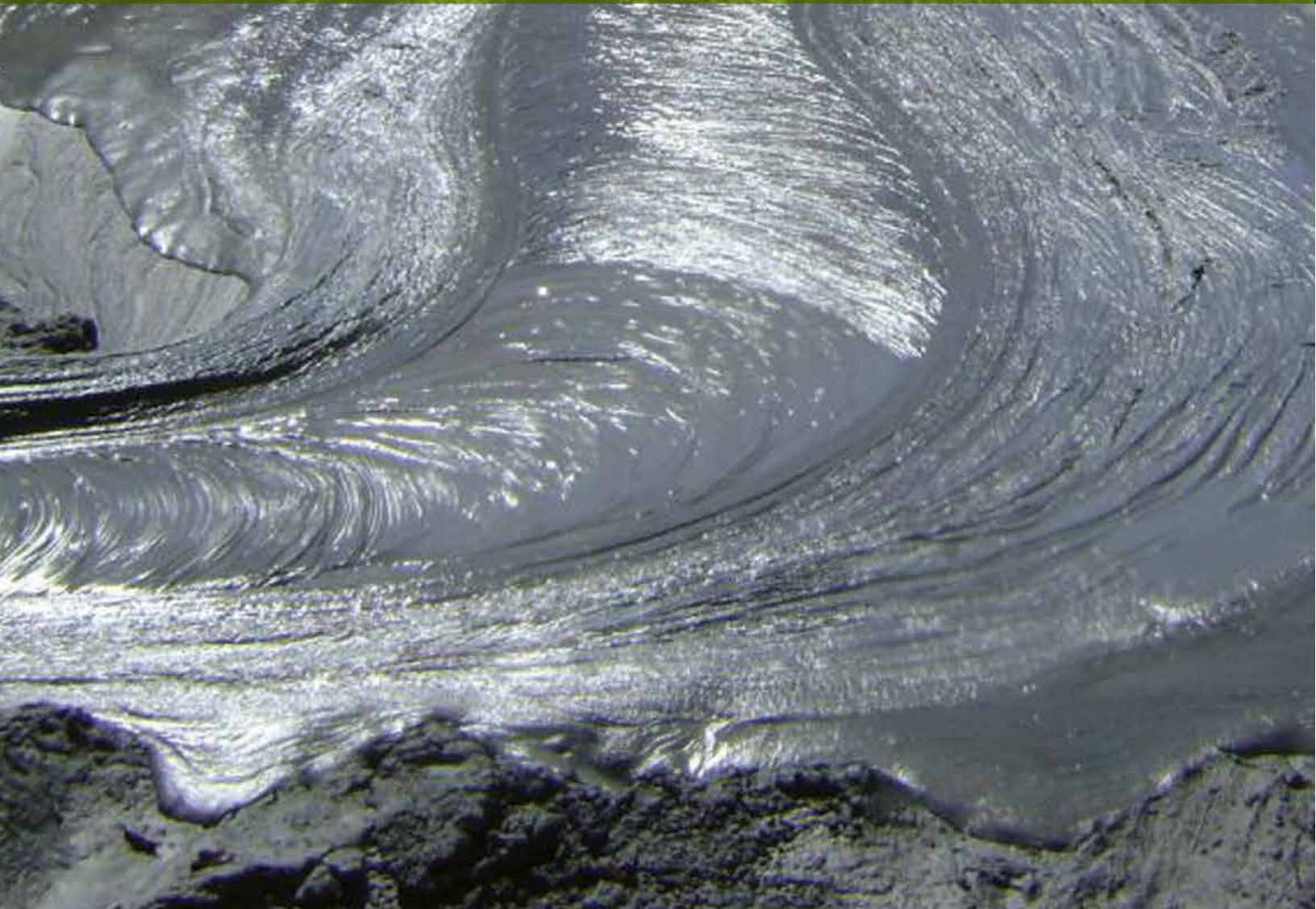
amec
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TAILINGS PRACTICE AND TECHNOLOGY

Mining & Metals



Amec Foster Wheeler is a leader in modern tailings disposal system development, design and construction offering innovative tailings management technologies and customized solutions to meet project-specific requirements.





Key projects

Our mining projects rely on us to deliver some of the most logistically challenging projects in the world. Our mining professionals provide experience and innovation to meet these diverse challenges, while maintaining industry leading safety performance. We focus on reliable, safe delivery to bring project pieces together with assurance at every stage of the project. Following is a small sample of the projects we have been proud to serve over 60 years in the mining industry.

- ▶ Black Butte, US
- ▶ Bloom Lake, Canada
- ▶ Bolañitos, México
- ▶ Copper Cliff, Canada
- ▶ El Boleo, México
- ▶ Elkview, Canada
- ▶ El Toqui, Chile
- ▶ Guanaceví, México
- ▶ Haile, US
- ▶ Kemess, Canada
- ▶ Kennecott, US
- ▶ Leeville, US
- ▶ Liberty, US
- ▶ Los Chancas, Peru
- ▶ Midas, US
- ▶ Mont-Wright, Canada
- ▶ Morelos, México
- ▶ Mount Hope, US
- ▶ Ollachea, Peru
- ▶ Port Cartier, Canada
- ▶ Rosemont, US
- ▶ San Bartolomé, Bolivia
- ▶ San Dimas, México
- ▶ San Rafael, Peru
- ▶ Twin Metals, US



Personnel

Amec Foster Wheeler has the experience and professionals to handle all phases of tailings work:

- ▶ concept and scoping studies
- ▶ prefeasibility studies
- ▶ feasibility studies
- ▶ engineering and construction
- ▶ operations and monitoring
- ▶ closure and remediation.

Through our team of multi-discipline professionals, we can design tailings solutions that are properly integrated with mining and processing facilities, allowing clients safe, reliable and cost effective operations.

We have capability in all aspects of tailings storage facility design and site selection, including:

- ▶ trade-off studies on alternative tailings dewatering methods for example conventional and paste thickening and filtration
- ▶ trade-off studies on embankment materials such as borrow fill, waste rock, tailings sands, embankment types (ring dykes, side hill, cross valley) and construction methods for upstream, centerline and downstream
- ▶ site selection studies for tailings storage facilities and tailings dewatering facilities
- ▶ tailings process flow design and optimization (dewatering, mixing, material selection and transport expertise)

- ▶ tailings transportation studies from the process plant to TSF (conventional and high density slurry pumping, conveying of filtered tailings)
- ▶ backfill distribution system (trucking, pumping, piping and boreholes, including supports, waste passes, high pressure pumping, booster and flushing stations)
- ▶ tailings embankment design
- ▶ tailings disposal and deposition planning (unthickened, thickened, paste, dry stack)
- ▶ in-pit tailings disposal
- ▶ backfill plant design (sand, rock, hydraulic and paste fills)
- ▶ tailings co-disposal with waste rock
- ▶ water balance (including GoldSim™ modeling) and water management, recycling and treatment
- ▶ seepage and groundwater management
- ▶ acid rock drainage management, including segregation of potentially acid generating tailings.



Services

Amec Foster Wheeler can provide services relating to:

- ▶ dam safety and risk assessment
- ▶ permitting assistance
- ▶ construction and operational monitoring
- ▶ due diligence
- ▶ materials engineering and testing for surface and underground applications
- ▶ technical training and ongoing operations support.

Stacking systems

Through our subsidiary, Terra Nova Technologies Inc. (TNT), we build tailings stacking systems which incorporate TNT's industry-leading and patented heap leach stacking technology, customized for tailings applications.

150+
year history
operating in over
50 countries



GLOBAL MINING SOLUTIONS


From concept
through closure

CONNECTED EXCELLENCE

In all we do

For more than 60 years, Amec Foster Wheeler has provided a full range of services for mining projects, from front-end geology and environmental consulting through to design, project and construction management, operations support and mine closure.

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