

KENSINGTON MINE BACKFILL



HIGHLIGHTS:

DESCRIPTION:

Underground Gold Mine Paste Backfill

LOCATION:

Juneau, Alaska

CLIENT:

Coeur Alaska Inc.

VALUE OF CIVIL WORKS:

\$23.4 M

ESTIMATED FUTURE PRODUCTION:

2025

The Project

The Kensington mine is an underground gold mine in Southeast Alaska which started commercial production in 2010 and uses mine paste fill technology for backfill operations.

The Scope

For the early phases of the Kensington mine, Portland cement was supplied through a supplier from Washington State. To reduce the cost of mine production, Coeur Alaska sourced less costly alternatives to pure Portland cement.

In 2013, Coeur Alaska performed further in house testing with Terraflow90™, as it showed greater strength gain properties over pure Portland cement and Terraflow75™. The testing was successful and Lafarge was contracted by Coeur Alaska to supply 13,000T of Terraflow90 per annum. Terraflow90 supply to the Kensington mine began in December 2013. Coeur Alaska currently enjoys significant cost savings by using Terraflow90.



Lafarge Participation

From 2009- 2010, during the Kensington mine construction, Lafarge started discussions with Coeur Alaska to provide Terraflow™, as an alternative to pure Portland cement, for more efficient and cost effective backfilling of the Kensington underground mine. Terraflow, a specialized blend of cementitious materials, was initially tested for the Kensington mine using Lafarge's Terraflow75™ and Terraflow90™.

Project Delivery

In 2013, Lafarge tested both Terraflow75 and Terraflow90 with Kensington's mine tailings and after a full year of evaluation and Mine Safety and Health Administration (MSHA) approvals, the mine was switched from traditional Portland cement to Terraflow90.

“By switching to Terraflow™, we were able to maintain our paste strength, drop our pump pressure and use less binder. Lafarge safely lightened the load on our equipment and our wallets.”

**Travis Haller, Mine Engineer,
Coeur Alaska**

“Terraflow is a great product and should be considered whenever you are backfilling.”

**Scott Flanagan,
Mine Engineer, Coeur Alaska**



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