

ESTERHAZY K3 MINE CONSTRUCTION



HIGHLIGHTS:

DESCRIPTION:

K3 Shaft Sinking & Surface Construction

MINE TYPE:

Potash Mine

LOCATION:

Esterhazy, Saskatchewan

CLIENT:

Mosaic

PROJECT VALUE:

\$40 M

ESTIMATED PROJECT COMPLETION:

September 2017

PRODUCT SUPPLIED:

10,500 m³ Chronolia™

14,000 m³ 55 MPa Shaft Mix

17,500 m³ 70 MPa Shaft Mix

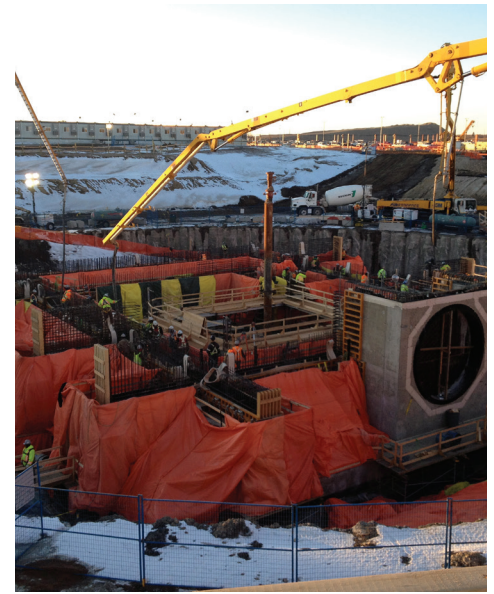
THE PROJECT

The Mosaic Esterhazy K3 project includes the sinking of two mine shafts and various surface construction to support future mining activities. The shafts were sunk through an underground water formation known as the Blairmore. With the ground being artificially frozen to a depth of about 480 meters. Throughout the project, Lafarge provided concrete tailored to specific structures and has been involved in site safety initiatives.

When completed, The Mosaic Company's K3 mine at Esterhazy will be the largest and most competitive potash mine in the world. The new K3 mining complex, currently under construction, is expected to operate at an annual capacity of 21 million ore tons by 2024.

LAFARGE PARTICIPATION

Lafarge mobilized a portable ready mix plant to the Esterhazy K3 Mine site and started producing concrete in October 2011. Lafarge's engagement in the project started with supplying large foundations for the head frame, which happened concurrently with other surface projects. In September 2012, Lafarge supplied 5,300 m³ of concrete over an 18 day period of continuous slip forming to construct the North Head frame, a structure that stands 112 meters above ground.



The next milestone was the pre-sink slip form in the South Shaft which took place in February 2013, followed by the North Shaft pre sink in June 2013. Both of these pours lasted approximately one week. Lafarge began supplying high early, high slump concrete for mine shaft liner in September 2013 and began providing 24/7 coverage to support the shaft sinking operations. The total shaft depths will be approximately 1036 meters. when completed at the end of 2017.

PROJECT DELIVERY

While on the K3 Mine site, Lafarge has been part of many Mosaic/Hatch Safety initiatives, including 'Incident Injury Free (IIF)' and 'Safe Start'. IIF takes a personal approach to safety - it emphasizes that home safety is equally as important as safety at work and reiterates how an incident at work can affect one's family. Safe Start is a set of principles that helps you self trigger on unsafe acts and conditions and learn to avoid incidents by recognizing unsafe situations.



The successes on the K3 Potash Mine Project can in part be attributed to Lafarge's supply of very site specific concrete mixes designed through diligent lab work and by dedicated production staff. Our mix designs lead globally in strength and workability.

Trevor Joyce
General Manager
Northern Alberta Ready Mix

Here at K3, the Lafarge team has been instrumental in helping construct our concrete shaft liner. Developing and providing a 70 MPa mix was fundamental to an efficient design and Lafarge came through for us.

Scott Williamson
Area Manager Shaft Sinking, Hatch



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