



Atlantic Industries Limited

# PROJECT PROFILE



## Northern Quebec mine chooses Ultra•Cor for haul road stream crossing

### Economical precast concrete footings and MSE Wire Walls perfect for remote location

Designed for extreme loads and deep covers, AIL's Ultra•Cor Structural Steel Plate was the perfect solution for this mine site's haul road stream crossing in a remote region of Northern Quebec.



#### Project at a glance:

**Location:** Northern Quebec

**Application:** Haul Road Crossing

**Product:** Ultra•Cor

**Model:** 62U Arch

**Dimensions:** Span 19.6 m, Rise 9.83 m,  
Length 32 m

**Design Load:** Komatsu 930E-4SE

**Maximum Backfill Cover:** 3.5 m

**Headwall:** AIL MSE Wire Wall

**Footings:** Precast Concrete (Supplied by AIL)





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The 19.6 m arch, combined with AIL's precast concrete footings and MSE Wire Wall headwalls, made a very economical solution without the need for poured concrete.

## **Structure built without disruption to existing stream habitat**

Like many buried steel bridge structures from AIL Mining, this crossing was built without disturbing the stream habitat. Once the engineered foundation soils were prepared on either side of the stream, AIL's Precast Concrete footings were placed and joined together by steel plates and the base channel for the plate structure. Select rip-rap lined the inner sides of the footings for added erosion and scour protection.

The Ultra•Cor structure was then assembled in a set sequence with the help of a couple of zoom booms and a crane. Once the arch was complete, the headwalls and engineered backfill assembly took place in sequential lifts.

MSE Wire Walls from AIL Mining are ideal for fast and economical installation using cost-saving wire components and native backfill materials wherever possible. They easily accommodate curves, angles or steps and the facing and soil reinforcing systems allow for the installation of culverts, bridge piles or other site requirements.

## **Ultra•Cor is the strongest structural steel plate available**

With the introduction of Ultra•Cor, AIL Mining is taking engineered structural plate to new dimensions in capability and performance.

Ultra•Cor combines all the advantages of lightweight construction with previously unheard-of strength and durability for the heaviest of loads. Spans can exceed 35 m (115').

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