



GEO-FOUNDATIONS Contractors Inc.

Laurie River Generating Station #2



Date: 2006

Technology: Rock Anchors

Laurie River Generating Stations # 1 & #2 are located 60 km south of Lynn Lake in northwestern Manitoba. The two stations originally went into operation in the 1950's to supply Sherritt Gordon's mining operations in the area. Laurie River GS #2 has the capacity to generate up to 5 MegaWatts of hydroelectric power. The station features a 170 metre long gravity dam structure that provides the station's turbines with a 16.8 metre fall of water. As part of Manitoba Hydro's ongoing commitment to safety and infrastructure reinvestment, the station was retrofitted in 2006 with 76 high-capacity, post-tensioned rock anchors.



Manitoba Hydro Laurie River Generating Station #2

The drilling, consolidation grouting and re-drilling work was completed by crews operating two drill rigs. A total of 2240 lineal metres of drilling and re-drilling was completed over a nine week period. The deepest anchors were 46 metres deep. The largest anchors had tendons consisting of 19 strands and were load tested to 4000 kN applied tension. The group of anchors located within the centre gravity structure and spillway, a total of 46 in all, were installed during a single shift using a helicopter.

Since there is no means of road access to the site, materials and equipment for this project were transported to site by train, from The Pas to Laurie River, a trip requiring 12 hours of transit time.



Rock anchor drilling from on top of dam deck



Strand anchors laid out awaiting pick up and installation by helicopter