

Mining Company Chooses Stormceptor MAX to Capture Fine Sediment and Protect the Saint Lawrence River

Project: Rio Tinto-Fer & Titane Inc. Plant

Location: Sorel-Tracy, Quebec, Canada

Owner: Rio Tinto-Fer & Titane Inc

Engineer: Dessau Inc.

Product: Stormceptor® MAX



Rio Tinto, Fer et Titane Inc. (RTFT) is a Canadian iron and titanium mining company operating from two locations in Quebec. The company has long been actively committed in the communities where it is established, like Sorel-Tracy and Havre-Saint-Pierre. Rio Tinto is concerned about sustainable development and the environmental issues and their impacts on the communities where they operate.

The Rio Tinto metallurgical complex in Sorel-Tracy is the only one of its kind in the world. It is the site of several interconnected plants with varied but complementary types of production. The reduction plant is at the heart of the complex and has nine furnaces that feed the entire production line.

After careful analysis, the company believed it needed to install a reliable, high-performance stormwater treatment technology that would be capable of capturing fine sediment particles from a 10-acre site it intended to develop. Since the fine sediment that was captured was easily compacted and, in some cases difficult to remove. To help keep maintenance costs at a minimum, and take advantage of the on-site industrial equipment, the unit's treatment chamber needed to be designed with grade-level access so it could be easily cleaned without requiring a confined-space entry.

Stormceptor MAX was chosen because it offered a single point solution to coordinate and gather the sites many rain discharge points, and could be engineered and designed to meet the operation and site's needs. This element made it easier to protect the water quality entering the Saint Lawrence River. Engineering consultants from Dessau, Inc. worked with Imbrium Systems and Lecuyer et Fils Itée to custom design the Stormceptor MAX and extend the treatment chamber up to the surface; thus making cleaning easier and eliminating the confined-space entry issue.

"The client wanted a high-performance stormwater treatment device on its 10.6-acre (4.3 ha) site. The stormwater treatment technology needed to capture fine sediment particles without scouring. They expressed strong environmental concerns; wanting to protect the Saint Lawrence River from harmful stormwater runoff. They needed easy, one-stop cleaning of the treatment unit – with no confined-space entry. Working with Imbrium Systems and Dessau, Inc., the issues were resolved and the Stormceptor MAX was the clear choice. Rio Tinto achieved its sustainability and environmental goals through good stormwater engineering and site design," commented Michel Cyr, Lecuyer et Fils Itée.

