

Treat Soot Waste Stream

Know-how for soot free Oil Sands Upgrading Operation in Canada

The Long Lake Project has chosen WT (Water Technologies) to treat soot waste stream from oil sands upgrading operation in Canada. WT will supply a Zimpro wet air oxidation system to destroy soot generated during the production of syngas. The 60 million USD system will reduce costs associated with landfill disposal and waste, and will be installed until the end of 2007 at the Long Lake Project site, located 26 miles southeast of Fort McMurray, Alberta, Canada.



The Long Lake project is a “next generation” oil sands development that integrates established and proprietary technologies and is expected to produce 58,500 b/d of products, primarily 39° API premium sweet crude oil. By adding the Zimpro wet air oxidation unit to the gasification process, soot volume is reduced to about 10 percent of its original volume, substantially reducing the amount of material to be disposed. Ultimately, the system reduces costs associated with landfill disposal and waste. In addition, the Zimpro wet air oxidation system allows the recovery of valuable materials present in the soot, like nickel and vanadium. The Long Lake project is currently under construction, with the production of synthetic crude beginning in mid-2007. Construction of the Zimpro wet air oxidation system will begin near the end of the current Long Lake construction, with start-up expected by the end of 2007.

The first phase of Long Lake project consists of 72,000 barrels per day of SAGD (steam assisted gravity drainage) oil production integrated with an upgrading facility, using OPTI Canada’s proprietary process and commercially available hydrocracking and gasification processes. Asphaltenes from the OrCrude process go into a gasifier, which produces syngas (a mixture of Carbon Monoxide and Hydrogen used to generate the steam required for the SAGD process and to further upgrade the synthetic crude) and a soot waste product – the product that will be treated by the Zimpro wet air oxidation unit.

“Our team is very excited about this opportunity to be involved with the Long Lake project,” says Jerry Rogers, Director of Petroleum and Oil & Gas products and systems for Siemens Water Technologies. “This is an innovative application for our wet air oxidation technology – one that will provide significant environmental benefit.”

Zimpro wet air oxidation was developed and commercialized in the 1960s. Today, WT continues to specialize in providing systems and services to the petroleum and petrochemical and chemical industries. The company has supplied more than 180 wet oxidation systems for a variety of applications, from high-strength industrial wastewater to municipal sludge.

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