

PRECIDIUM ECS™ Case Study

PROJECT

Pembina Taylor Facility
Vicinity of Fort St. John, B.C.



Companies Involved

Pembina, Solaris MCI, Western Engineered Containment Ltd. (WEC)

PRECIDIUM™ ECS™ and **PRECIDIUM™ Fusion** are exclusively manufactured by Quantum Chemical for Western Engineered Containment.

OVERVIEW

This was a 60,000 sq. ft. secondary containment liner for a crude oil tank. The **PRECIDIUM™ ECS™ Secondary Containment System** was selected for the project to capitalize on a tough, cost-effective, elastic material which would conform better to any unexpected protrusions which would puncture a stiffer material such as HDPE.

PRODUCT and EQUIPMENT

Materials: **PRECIDIUM™ ECS™ Polyurea** sprayed on Spunbond Geotextile; **PRECIDIUM™ ECS™ Fusion** (panel joining material).

INSTALLATION

To minimize installation time and material wastage, geotextile sheets were pre-sprayed with **PRECIDIUM™ ECS™** to a uniform thickness of 40 mils using robotic spraying equipment at the WEC facility in Drayton Valley, AB.. Geotextile sheets were joined to form 30'x30' panels which were rolled on cardboard cores for shipment to site. Panel rolls

weighed approximately 400 lbs. so a small skid steer was required to deploy the rolls in the field.



The 30'x30' panels were positioned in the containment area and joined using **PRECIDIUM™ ECS™ Fusion**. The panels showed very little shape memory from being rolled and laid flat when deployed. Installation began on the containment bottom, proceeded up the berms, and at the top of the berm were terminated in an anchor trench dug by the small backhoe.



The integrity of all joints where panels were attached to one another, both in the shop and field, were tested using spark/holiday equipment. This, in combination with quality control (QC) protocol on the coated geotextile sheets as they were produced, assured a leak-proof containment. Once the geomembrane was installed it was covered with a nonwoven geotextile as added protection when the containment was backfilled with soil.



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In total, the seven-member crew installed more than 60,000 square feet of **ECS™** and geotextile in just four days. QA/QC documentation was completed at each stage of the process to the satisfaction of the facility owner.

