

Coastal Technologies, Inc. Supplies Uniquely Designed Chevron Vane Mist Eliminators to Alberta Oil Sands

CTI Admin - Tuesday, October 28, 2014

Hampton, SC—Coastal Technologies, Inc. (CTI), a worldwide provider of high-performance industrial mist eliminators, coalescers, and separation solutions, will supply its uniquely designed chevron vane mist eliminators to the water conservation efforts in Canada's Alberta oil sands.

The Alberta oil sands form the world's third largest hydrocarbon basin, with 97% of its land mass located in northern Alberta. Today's technology supports growing production in areas like this by improving energy efficiency and reliability, along with reducing impact on air, water, and land. With these advanced techniques, 173 billion bbls of water can be recovered. Two hydrocarbon extraction processes are used: oil extraction after shallow open pit mining, and the in situ steam extraction process for deeper resources. CTI's experience in the oil sands goes back ten years to the early extraction process after open pit mining.



Suncor Energy Inc.

The in situ Steam Assisted Gravity Drainage (SAGD) is now primarily used for thermal heavy oil production and is the fastest growing extraction method. This recovery operation employs a pair of horizontal wells, one for steam injection and one for oil drainage production. Heat from steam turns the semisolid bitumen to liquid. Most of the effort and cost of using the SAGD method goes into producing the required steam without make-up water. For every barrel of oil produced, three to four times that quantity of water is needed for the steaming operation, resulting in over 90% of plant-wide water being recycled. Once the heavy oil and condensed steam, known as produced water, is

brought to the surface, the SAGD facility is left with the complex task of recycling the produced water to make more steam while minimizing the strain on make-up water resources and waste disposal.



JACOS Expansion Project

That's where Coastal Technologies, Inc., a world leader in high-performance steam separators and mist eliminators, comes in. CTI has supplied its equipment to the Alberta oil sands projects to help minimize the need for large quantities of water and ensure that the distillate quality provided by evaporation systems meets or exceeds the boiler feed water requirement. CTI's high-efficiency horizontal flow AIROL®130H100, AIROL®440H100, and AIROL®140H-1-750 mist eliminators release high-quality distillate from the evaporator. The mist eliminator also protects the downstream compressor against corrosion from brine droplets in the outlet steam vapor. And thanks to mist eliminators' unique containment devices, maintenance and inspection are safe and easy.



Separators also are used following the Once-Through Steam Generators (OTSG) that produce 75% to 80% quality steam. The steam separators upgrade that percentage to 99%+ steam quality, which is directed into the reservoir steam wells to liquefy the heavy bitumen oil. Years of experience with geothermal steam-production power plant applications around the world qualify CTI in this area.

Alberta Oil Sands Projects

Suncor Energy Inc., Tar Island, Fort McMurray, Alberta – Open Pit Extraction 2003, not rated
JACOS (Japan Canada Oil Sands Ltd) pilot facility, SAGD 2013 – 7,000 bbl/day
Penngrowth Energy Corp., Lindberg Thermal Plant, Phase I, SAGD 2013 – 12,500 bbl/day
JACOS Expansion Project, SAGD 2014 – 20,000 bbl/day

For more information on Coastal Technologies, Inc., please call **803-943-4822** or visit www.cti-sc.com.

About Coastal Technologies, Inc.

Coastal Technologies, Inc. was founded in 1986 to provide high-quality and innovative solutions to customers' mist separation problems. The company has operated and improved its manufacturing facilities continuously since that time, in keeping with its corporate mission of excellent customer service and ever-increasing product value and selection. CTI represents over a century of engineering, manufacturing, and management experience and stands ready to respond to the full scope and magnitude of any mist separation problem.

Contacts:

Norman Mansson
nmansson@cti-sc.com

Louis Peoples
lpeeples@cti-sc.com