



Northern Niches

OIL SANDS BECKON TO MERCHANTS OF MICROSCOPIC MICROBE FOOD AND MAMMOTH BOILERS ALIKE

Call Alberta discovered – everywhere.

“We read about the tailings ponds,” said Dutch-born James Wrubel, who trekked across the continent this summer from his adopted New York home on Long Island to the oil province.

“We read about the birds. We read about the tremendous growth of the oil sands.”

But he did not make his pilgrimage to stage a Greenpeace publicity stunt, trespassing on Syncrude prop-

AMERICAN ENTREPRENEURS ARE TREKKING NORTH IN PURSUIT OF A PIECE OF ALBERTA'S ENERGY ACTION

erty and unfurling a protest banner recalling the spring episode of tailings pond duck deaths.

Wrubel is a merchant of industrial chemicals. For him, environmental accidents, popular pressure to prevent further mishaps, and advances in cleanup materials add up to opportunities.

He described Alberta, with its vast arrays of containers for hazardous materials and their potential for harmful spills or leaks, as ripe for a European product like the one his EcoSolutions International LLC is introducing to North America. “We love tanks,” he said.

The item is a super-food for micro-organisms that occur everywhere on the planet and acts as an active agent in biodegrading waste into harmless or useful materials. The magic formula, a Dutch invention, vastly accelerates the natural biodegrading process by triggering rapid growth and reproduction of organisms into voracious packs that dine out on cleanup targets.

“Feed them and they eat hydrocarbons,” Wrubel said in an enthusiastic sales pitch made repeatedly at an oil sands industrial trade fair held in Calgary by the Oklahoma-based PennWell technical publishing and show network.

“They die when they’re full. After they clean up a mess, you’re left only with some dead biomass, water and a minute amount of carbon dioxide that they breathed out while they were alive,” Wrubel said.

“The micro-organisms that don’t eat just die. They don’t get out of control.” The super-food has no effect on larger life forms, he added. “You can wash your hands with the stuff.”

The product is used in about 80 per cent of Dutch fire extinguishers and routinely sprayed on blazes or fuel spills at road accidents, Wrubel reported. >>

Claims for the nutrient also include that it does a tidier, safer job of cleaning toxic oily materials off birds or other wildlife than liquid dishwasher soap currently donated to rescue crews by major manufacturers. Conventional detergent is 17 per cent alcohol and leaves a residue on victims of environmental accidents, Wrubel said.

The product initially emerged from research commissioned by textile manufacturers, he reported. European mills were looking for a cleaning method for looms that would prevent machinery parts, lubricants and maintenance from leaving grease or oil stains on cloth.

“Unfortunately the textile industry largely left for Mexico, India and China,” Wrubel said. But the special nutrient for the microscopic agents of biodegrading was not forgotten. “It was tweaked for the oil industry.”

So far, Alberta is only a sales target for the biological Dutch cleanser. Manufacturing for North American markets is initially going into Michigan and California. “From an environmental product point of view, if you score in California, you snowball. That’s where environmental standards are highest,” Wrubel said.

American entrepreneurs, trekking north to hunt for pieces of Alberta energy action in fields from metallurgy to information technology, studied the Calgary trade fair.

With its combination of high demand for large products and shortages of supplier companies and skilled talent alike, Alberta is made in heaven for envoys from older, larger branches of international industry.

Oklahoma-based Victory Energy, for instance, is carving out a niche making boilers for oil sands projects. Alberta orders helped propel the private firm into the number-one spot in an American survey of the fastest growing U.S. manufacturers

last year.

“There’s lots of people up here looking for this type of equipment,” Victory founder John Viskup said. “There are no boiler manufacturers in Western Canada.”

Even modest projects on the mega-scale that prevails in the oil sands – where production of 10,000 barrels a day is regarded as a small development stage – require huge equipment by older Alberta standards for simple installations of tanks and pumps on clusters of conventional wells. Colossal boilers are cornerstones of the current favorite technology used to tap the four-fifths of the resource that lies too deeply buried for the open-pit mining methods used north of Fort McMurray on the richest, shallowest 20 per cent minority of bitumen reserves.

Known as steam-assisted gravity drainage or SAGD for short, the system makes bitumen flow to the surface with boiling hot injections. The volumes involved in heating up the ground to the point where the asphalt-like deposits flow are immense. Engineers at SAGD sites commonly joke that they are mostly building and running water treatment plants. The latest and most environmentally friendly systems tap salty underground aquifers instead of fresh water and employ recycling loops to repeatedly boil up steam, recover and condense it back into a liquid, then reheat and re-inject it.

A yardstick known as the steam-oil ratio or SOR has evolved as a key industry benchmark, describing projects’ comparative efficiency and likely profitability with two numbers. The strongest

ORDERS FOR VICTORY ENERGY’S COLOSSAL BOILERS FOR ALBERTA’S OIL SANDS PROJECTS POSITIONED THE COMPANY AS AMERICA’S FASTEST GROWING MANUFACTURER



SAGD projects to date have ratios on the order of two or 2.5 to one, meaning they inject two to 2.5 barrels of steam into the ground to produce one barrel of bitumen. SORs go as high as 10 to one, especially in early production stages when projects are just beginning to heat up underground deposits.

Victory Energy is not selling on low price points but on the company’s ability to custom meet client’s stringent requirements. The manufacturer instead offers prefabricated boiler packages tailored for varying projects. The kits travel in pieces weighing more than 135,000 kilograms and are loaded onto jumbo trucks that do well to log average trip speeds of 50 to 80 kilometers an hour.

The formula has worked well enough for Viskup, who built Victory Energy from scratch in 1999 into a 400-employee fulfillment of his ambitions. “It’s the American dream to have your own business,” said the 38-year-old entrepreneur. “No problem,” he added in describing Victory’s plans to deliver two boilers to Connacher Oil & Gas Ltd.’s Great Divide project south of Fort McMurray. “It’ll just take some time to get ‘em up here.” AO