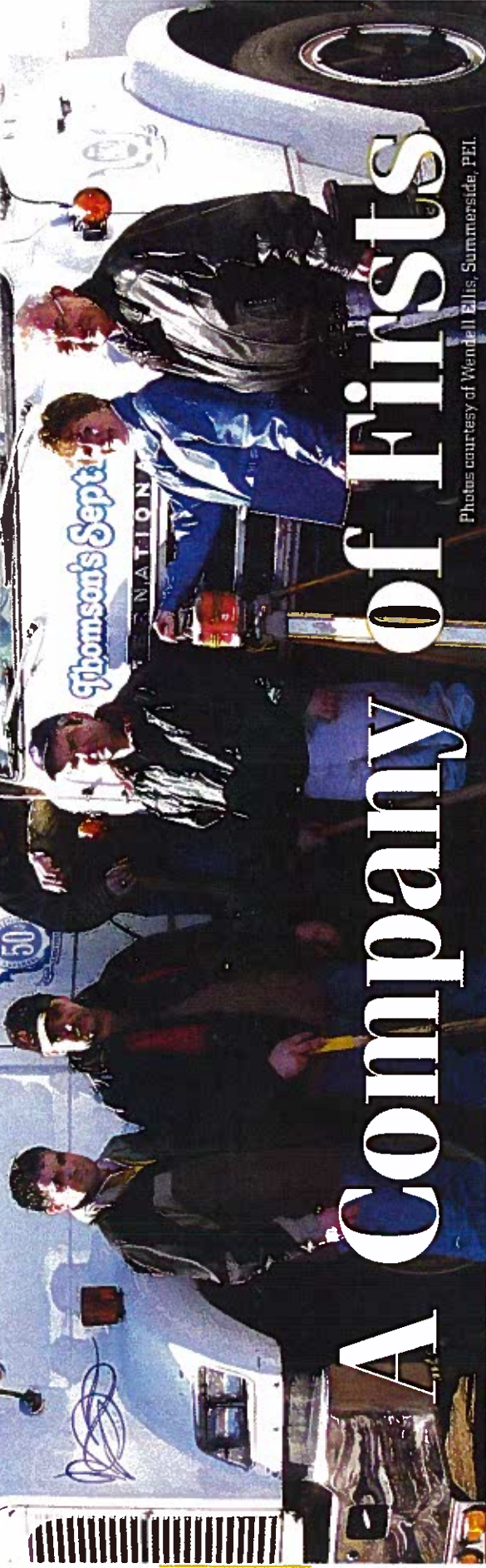


INSTALLER profile

The Thomson Septic Tank Service team: from left, E. Trent Thomson, David G. Ford, R. Clay Thomson, Wayne Larkin, and owners Gloria and David W. Thomson Jr.



Photos courtesy of Wendell Ellis, Summerside, PEI.

A Company of Firsts

Thomson Septic Tank Service introduces new onsite treatment technologies to the Canadian province of Prince Edward Island

By Rosalie E. Leposky

Thomson Septic Tank Service, Cornwall, Prince Edward Island

Owners: David Thomson Jr. and Gloria Thomson

Founded: 1952

Employees: 5 full-time, 2 part-time

Services: Septic system installation, septic system maintenance, portable restroom rental, waste management for agricultural businesses

Service Area: 30-mile radius from Charlottetown



Prince Edward Island

Cornwall

Customers always come first for David Thomson Jr. of Thomson Septic Tank Service on Prince Edward Island. "Regulators come second, and we come third," says David, who owns the business with his wife, Gloria.

The company, founded in 1952, has helped bring progressive onsite treatment technologies to the island and its 140,000 year-round residents. A 2,184-square-mile island between the Gulf of St. Lawrence and Northumberland Straits, PEI is 140 miles long and three miles to 40 miles wide.

It is a popular summer tourist destination, attracting 1.2 million visitors from June through September. That requires seasonal housing, restaurants, shops, and entertainment facilities, all needing wastewater systems.

Whether installing an advanced treatment system or a conventional septic system, David prides himself on taking the best care of customers. That begins with showing up on time for appointments. "If something unpredictable occurs, we always call customers and let them know

we will be late and why," David says.

Thomson offers customers a five-year workmanship guarantee on any septic systems it installs. "We try to hire responsible crew members, and we make the effort to keep our equipment in working order and looking good."

Bringing the latest

Newer technologies Thomson Septic has brought to the island include the White Knight leachfield recovery system from Knight Treatment Systems, and an extended-aeration treatment unit manufactured by Clearstream Wastewater Systems, Inc., which the company expects to install on a project in summer 2004.

Introducing new treatment technologies often means educating the regulators who must approve of their use. "Not only are we often the first to introduce new technology, we try to identify issues, and educate regulators to change their understanding and view," David says.

"We've taken products new to PEI and the Maritime Provinces through the environmental protection agencies' long

"Our PEI environmental regulations are very strict because a lot of people, particularly in the countryside, have their own wells. Our regulations protect these wells from contamination."

-David Thomson

acceptance processes. Our PEI environmental regulations are very strict because a lot of people, particularly in the countryside, have their own wells. Our regulations protect these wells from contamination."

Thomson Septic's history of innovation spans more than half a century. In 1952, David's father, David Thomson Sr., a plumber, was asked to install two septic tanks. He saw the business opportunity and started specializing in septic tank installations. "Until then, PEI plumbers might install one or two a year," David Jr. says. "Dad was the first to install septic tanks full time."

The septic system maintenance side of the business began with a one-ton truck with a diaphragm pump and a 300-gallon tank. "I had PEI's first vacuum-pump system," David Jr. says. Today, the company's equipment includes a Caterpillar backhoe and transport trailer, and two vacuum trucks for septic pumping and other waste services.

Keeping it dependable

"Dad's first septic tanks were built with cement blocks and a hand-dug trench, and he installed gravel with a wheelbarrow," says David. "Soon he brought in a Black Hawk Trencher, the first on PEI. He followed the regulations of the time. No permits were required. The last time I talked to anyone about one of my father's early systems, from about 20 years ago, it was operating problem-free."

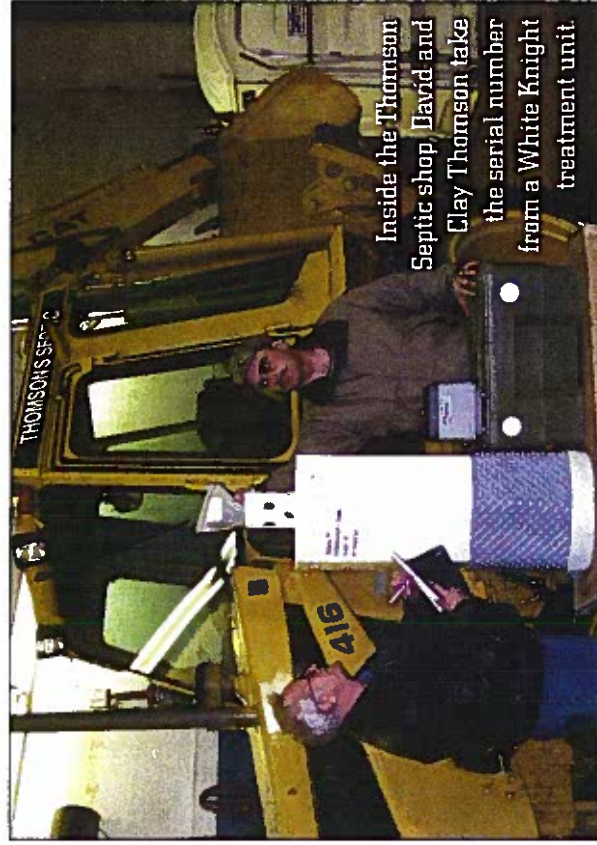
David tries to keep up that tradition, and he uses innovative technologies where site conditions call for them. Last fall, Knight Treatment Systems named Thomson Septic its distributor for the

fields in winter. "Once the ground froze, you had to wait for the spring thaw to replace absorption areas," David says. "Meanwhile, you had to come back several times and pump out the septic tank until the spring construction season began. Those repeat pumpings are very expensive."

The Knight system is a microbial inoculator and generator designed to eliminate the clogging biomat in drainfields. The treatment unit installs inside the septic tank. Specially designed bacteria grow on fixed-film media inside the unit. An air pump supplies oxygen for bacterial growth and circulates tank contents over the media. This leads to discharge of the bacteria to the drainfield, where they digest the biomat.

The basic technology was created several years ago, using selected strains of bacteria to remediate petroleum-contaminated soil through composting. It was later adapted to drainfield restoration.

Last December, David installed a White Knight system at a restaurant with a



Inside the Thomson Septic shop, David and Clay Thomson take the serial number from a White Knight treatment unit.

Maritime Provinces: New Brunswick, Nova Scotia, and PEI.

"Knight Treatment representatives met with PEI environmental authorities one morning, and received approval," says David. "We installed the first system that very afternoon," says David.

That first unit was installed in a snowstorm. Without such a remedy, relief was much more difficult for failing drain-

for a construction project involving multiple summer cottages on the shore of Northumberland Strait, on the south side of PEI. His Clearstream system supplier is The Septic Store in Osgoode, Ont. "We are considering becoming a Clearstream dealer," David says.

The Clearstream system consists of a small primary tank that holds a minimum of half of a day's flow, and the fiberglass Clearstream aerobic treatment unit. Installed between the septic tank and the drainfield, the Clearstream unit significantly reduces septic tank effluent BOD and TSS, enabling a reduction in the size of the drainfield.

The system uses a self-contained aeration and clarification process in which bacteria and other microorganisms convert sewage into clear, odorless water. It is used in areas with site limitations including slow-percolating soils and high water tables.

The Clearstream unit has no moving parts. It has been available since the mid-1980s but is new to Canada and the Maritimes. It is designed to work in tough environments with cold temperatures and wind chill.

Other innovations

Thomson Septic's innovations are not limited to treatment units. In 1986, Thomson was the first company on the island to offer polyethylene septic tanks from Wedco Moulded Products, a division of The Plastic Group in Boucherville, Québec.

In 1990, the company was among the first in Canada to use plastic leachfield drainage chambers from Infiltrator Systems.

Besides installing and maintaining septic systems, Thomson provides wastewater support services to PEI's agricultural businesses. At hog farms, he pumps out holding tanks for liquid manure. At dairy farms, he collects water used to clean milkhouses and milking machinery. At slaughterhouses, he collects blood and other residues for proper treatment and disposal.

It's all in the name of providing good service for PEI's residents and corporate citizens. In the bargain, David helps to keep PEI's reputation as a great place to live and a bit of paradise that tourists love to visit. ■

A Cold Place

Most North Americans know little about Prince Edward Island other than that it is cold in winter and cool in summer.

When a septic system fails, repairs may have to be undertaken in cold, snowy weather. Winter temperatures range from 11 to 26 degrees F, with wind chill on windy days down to 40 degrees below zero. The top four feet of soil freezes in winter.

PEI has about an eight-month season for installation of septic systems. "Depending on weather, installations are planned from May to the first of December," says David Thomson Jr. of Thomson Septic Tank Service. "Sometimes we can start in April. Our red clay soil can be very troublesome. Sometimes we have to truck in and install extra soil around septic systems. The location of some septic systems requires the use of pumps to move effluent through the system."

Wayne Larkin pumps a restaurant septic tank to prepare for the installation of a treatment unit.

