

CASE STUDY Eco-responsible microbrewery



## PROJECT

Cartwright Springs Brewery, Pakenham, Ontario, Canada

## FACTS

Cartwright Springs Brewery takes its name – and the main ingredient for its craft beers – from a natural spring located just a short walk away.

Before the brewery could open its doors in 2015, the owners needed to find an on-site wastewater treatment solution that would protect their precious source of water. Their business and their reputations depended on it.

#### **CHALLENGES**

Cartwright Springs Brewery needed a treatment system that could handle up to 10,000 L of wastewater per week and cope with flow fluctuations between peak business hours.

The main challenge, however, was the wastewater itself. It would be a combination of all streams, including:

- high strength and low pH from yeast and mash dumps
- low strength and high pH from wash water
- high NH<sub>4</sub> from frequent toilet flushing

## SOLUTION

With technologies and support from Premier Tech, Fieldstone Engineering, the firm in charge of the project, designed a treatment train tailored to the unique needs of the beer-making industry. The train, which includes a Rewatec moving bed biofilm reactor (MBBR), was designed as follows:

- 1. septic tank for primary treatment
- 2. equalization tank to provide a metered dose to the MBBR
- 3. two-stage MBBR for secondary treatment
- **4.** clarification tank to separate solids from liquids in the sludge and scum resulting from the treatment process
- 5. gravity-fed leaching field for final wastewater purification

#### RESULTS

Cartwright Springs Brewery's wastewater treatment system was operational as of July 2015. Influent concentrations of BOD range from 1,500 to 2,500 mg/L and laboratory tests of treated effluent show a steady removal rate of 99%.

# REWATEC

Rewatec MBBR is the clear-cut treatment solution for projects with fluctuations in flow and strength. This modular system is designed to reduce high loads of  $BOD_5$  and  $NH_4$  and is ideal for:

- breweries and wineries
- · fast food chains
- truck stops, hotels, and campgrounds
- · convenience stores with food preparation
- · projects where space is limited



#### **CONTACT US**

Ask our experts about this and other wastewater treatment solutions available from Premier Tech. Whether your project is big or small, we have technologies to make a difference.



PT Water and Environment

1-800-632-6356 pta@premiertech.com premiertechaqua.com

