CASE STUDY

COMMUNITY ADELDEV

2019

Distributor	**DBO Expert Canada**
Project	Installation of a System O)) at a new residential development in Quebec
Treatment Capacity	**68,500 L/day**
Soil Analysis	**Permeable**
System Surface Area	**1,368.9 m²**
Particularities of the Site	Possibility of adding sections onto the system if the community grows.

Treatment results available upon request.

Septic tank and pumping station

BACKGROUND

This is a new community built in 2019. It isn't attached to a municipal sewage network, so they required an on-site treatment system. The system treats the wastewater of 40 residences using 900 Advanced Enviro))Septic pipes.

PRIMARY TREATMENT

The System O)) is preceded by a primary treatment. Raw wastewater leaving the camp is collected in a septic tank with an effective volume of 16,000 L. Inside the septic tank the wastewater separates into layers as the fats float to the top and the solids sink to the bottom of the tank.

DISTRIBUTION

The effluent of the septic tank is pumped into six different interlaced cells. Each cell is fed by one of two distribution boxes that distribute the wastewater evenly into the 25 rows of Advanced Enviro))Septic pipes found in each cell. The proper functioning of the System O)) depends on a uniform distribution of wastewater between the Advanced Enviro))Septic pipe rows. This is achieved with the help of equalizers installed inside the distribution box. These equalizers have weirs that are manually adjusted by a dial during the installation. They are the only moveable parts in the entire system. Once they are set during the installation, they don't need to be adjusted again. The treated effluent of the system is discharged into the ground.

Rows of Advanced Enviro))Septic pipes

Covering the Advanced Enviro))Septic pipes with filter sand

System O

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ADVANCED SECONDARY TREATMENT

This System O)) uses six interlaced cells consisting of 25 rows of six Advanced Enviro))Septic pipes. The wastewater flows along the lenght of the rows, where it is treated by bacteria living in the pipes and in the filter sand during the infiltration process.

SYSTEM FEATURES AND BENEFITS

- All wastewater at the site is treated passively,
- No maintenance is required,
- No energy is spent on wastewater treatment,
- No products are required for wastewater treatment,
- Wastewater odours cannot develop,
- The treated water is perfectly clear and free of pollution.

ECONOMIC ADVANTAGES

By using a System O)) the client saves money in the long term. A System O)) costs roughly the same as a conventional system, but has a lifespan of over 30 years. Conventional installations can start to fail after 15 years even if they are treated well. The System O)) doesn't require maintenance and isn't any filtering media to replace or parts that can break. This system is perfect for this project because sections can be added onto the system if the community grows.

ENVIRONMENTAL ADVANTAGES

Purification performance well below the country's standards:

- Less than 15mg/L of BOD_5 (5-day biochemical oxygen demand)
- Less than 15mg/L of suspended solids (SS)
- Less than 50,000 CFU/100ml of fecal coliforms

The treatment process of a conventional installation occurs in the native soil, while System O)) treats the wastewater within the system, protecting the native soil.

Attaching the Low Pressure Repartition System headers

Ventilation and Low Pressure Repartition System headers

System O)) DBO INTERNATIONAL