pulsar MEASUREMENT

Finding Accurate and Reliable Sludge Levels in Secondary Treatment

In the City of Fredericton in New Brunswick, Canada, their Water & Sewer Utility treats more than 21 million liters of wastewater from homes and businesses each day. Due to its fast-growing population, Fredericton's wastewater facilities have an immediate need to increase efficiency and capacity, specifically with measuring and automating their biosolids collection.

During their collected wastewater treatment, sludge from both primary and secondary clarifiers is separated and pumped to the operations building where chemicals are added to prepare the solids for dewatering. Over 5,000 tons of dewatered solids are removed from the City of Fredericton's wastewater recycled and used as manufactured topsoil every single year. Then the treated, clean, and safe effluent is returned to the Saint John River.

The Sludge Finder 2 Offers Reliable and Repeatable Non-Contact Measurement

Working with activated sludge is highly toxic so finding a non-contact measurement solution was a priority. The Sludge Finder 2 offers reliable and repeatable sludge measurement without municipal workers needing to have contact with sludge or biosolids as they can read the echo graphs from the meter's screen and see how the sludge levels change in real-time. Low installation and maintenance costs make the Sludge Finder 2 an ideal choice for municipal wastewater facilities.

Reading the Echo Processing Algorithm to Identify Sludge Levels

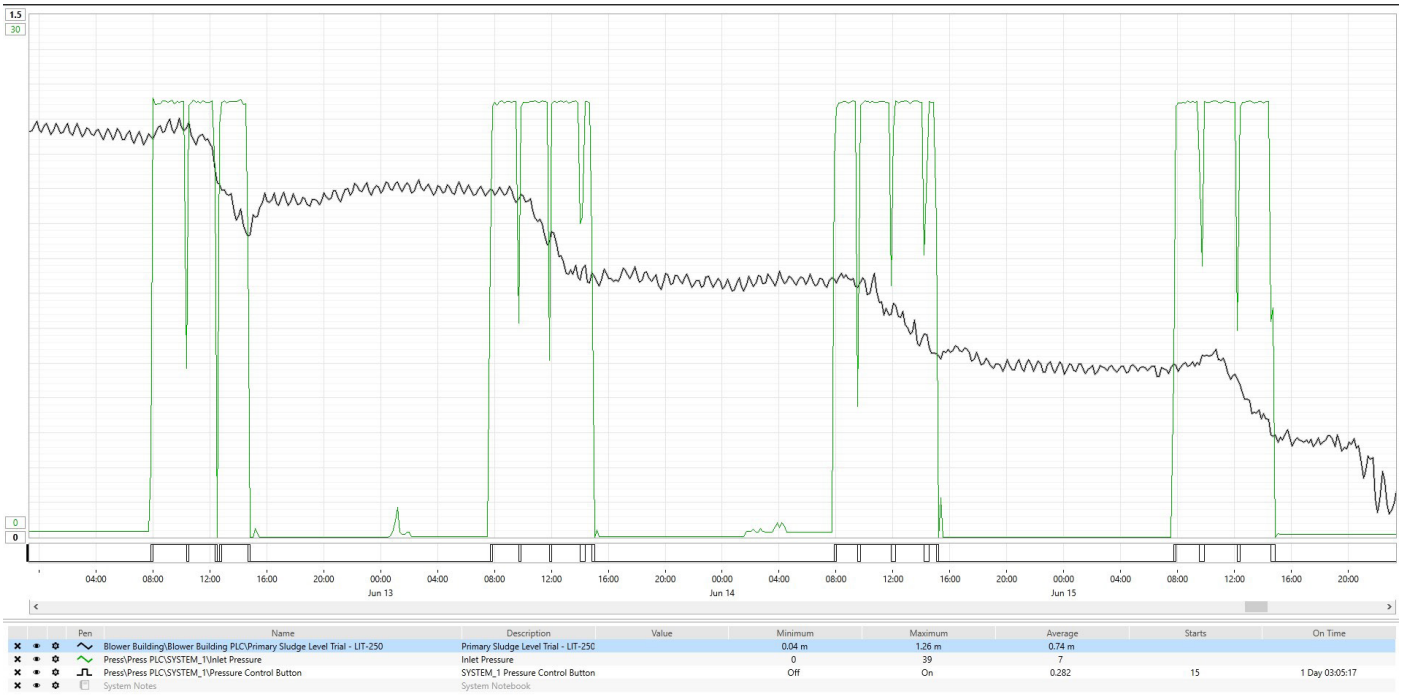
The historic SCADA trend shows the reliability of our Sludge Finder 2 in a graphic way. The graph on the following page shows a black line that represents the sludge level in the primary clarifier. The green line is the pressure line, it goes up when sludge is actively being pumped out of the clarifier. You can see how the sludge level drops during the periods of pumping.

"Customer is extremely happy with the SF2 and wants to have it installed in every clarifier."

-Everest Automation

Right now, the facility is using trucks to take the sludge to another facility, that is why you see four batches going out.

The City of Fredericton's Water & Sewer Utility is an innovative and highly respected water plant in New Brunswick and is a reference for other municipalities. Upgrades are planned for their wastewater infrastructure with a planned investment of $36.4M over the next 4 years which includes plant modifications to pump the sludge directly into driers. They know that with these positive results with the Sludge Finder 2, they will be able to fully automate the system. Pulsar Measurement is pleased that we were able to provide a safe and reliable solution to be utilized in future clarifiers in the City of Fredericton.



Pen	Name	Description	Value	Minimum	Maximum	Average	Starts	On Time
	Blower Building\Blower Building PLC\Primary Sludge Level Trial - LIT-250	Primary Sludge Level Trial - LIT-250		0.04 m	1.26 m	0.74 m		
	Press\Press PLC\SYSTEM_1\Inlet Pressure	Inlet Pressure		0	39	7		
	Press\Press PLC\SYSTEM_1\Pressure Control Button	SYSTEM_1 Pressure Control Button		Off	On	0.282	15	1 Day 03:05:17
	System Notes	System Notebook						

More Information

Sludge Finder 2: https://pulsarmeasurement.com/sludge-finder-2

Partner Locator: https://pulsarmeasurement.com/en/partnerlocator

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