



City of Orillia

**2025 Annual Wastewater Treatment Centre
Performance Report**

**March 2026
Environmental Services Division
Environment and Infrastructure Services Department**

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1.0 Introduction

The following Annual Wastewater Treatment Centre (WWTC) Performance Report for 2025 is generated and submitted to the Ministry of the Environment, Conservation and Parks (MECP) annually to satisfy Condition 11(4) of the Environmental Compliance Approval (ECA) No. 1336-CTTL3V for the City of Orillia's WWTC.

The following section and the corresponding attachments discuss the City's compliance with Condition 11(4) of the WWTC ECA.

Please note, in preparing this report, it was discovered that several values - specifically volumes for influent, effluent, and sludge production - had been reported inaccurately in 2024. For this reason, a corrected table summarizing the flows and volumes for that year have been included as an additional attachment to this report.

2.0 Summary and Interpretation of Monitoring Data

2.1 Condition 11(4) a) – Influent Performance Interpretation

The tracking of the measurements of the influent flow began in 2020. The total annual influent flow in 2025 at the WWTC was 6,840,019 m³. This represents a 12% increase in observed flows over 2024.

In 2022, new effluent flow meters were installed on each of the pumps at the James St. Sanitary Pumping Station (SPS) that conveys sanitary sewage to the WWTC; however, the instruments installed were prone to erratic readings at times and efforts have been made to bring them within a tolerance of +/-10%. The installation of new electromagnetic flowmeters had been planned for late 2025 but was unfortunately delayed until the Spring of 2026.

2.2 Condition 11(4) b) – Final Effluent Performance Interpretation

The annual total for treated effluent flow in 2025 was 5,103,464 m³. This would suggest a 2% increase over the previous year's 5,005,439 m³, though still 5% lower than the five-year average of 5,368,093 m³. The WWTC treated effluent Average Daily Flow (ADF) remained at 51% of its rated capacity of 27,300 m³ per day, or approximating 13,982 m³ per day.

The City's Water Filtration Plant (WFP) and its associated wells produced 4,260,457 m³ of drinking water in 2025. Overall, the effluent flow from the WWTC was almost 20% higher than the total system flow for the drinking water system. Additional flows to the WWTC in 2025 are attributed to the following items:

- i) Hauled septage discharged at the City's Septage Receiving Station, which totaled 24,848 m³;

- ii) Approximately 13,050 m³ of compost-impacted stormwater from the City's composting site was pumped to the WWTC;
- iii) 175,396 m³ of backwash water was discharged to the sanitary sewer from the WFP; and
- iv) Inflow and infiltration, which is assumed to account for the majority remaining volumes. Evidence of this occurs regularly as flows increase during wet weather events. The City invested in contracting out inflow and infiltration studies at various locations within the collection system in 2023 and has awarded a contract for another such study in 2026.

The total precipitation in 2025 was 817.40 mm, only 5% less than 2024. Much of the precipitation experienced in 2025 were attributed to several significant rain events, of which there were 15 with 15 mm or more over a 24-hour period.

Decanting of the biosolids storage lagoons typically adds to the flows at the WWTC, however, due to an increased focus on the biosolids program and rehabilitation completed on the South Lagoon, no decanting occurred in 2025.

The effluent monitoring data is summarized in the attached tables. The WWTC is performing adequately, and all parameters are within their allowable limits as per Schedule C. The design objectives for total phosphorus were exceeded in April (0.19 mg/l), July (0.12 mg/l), August (0.12mg/l), September (0.14 mg/l), and October (0.16 mg/l). The April exceedance is owed largely to the bypass event; if removed, the average for the month was 0.07 mg/l. Those exceedances from July to October may be owed to operational issues with the tertiary filters; both of which experienced drive chain failures in 2025, making them inoperable for several months.

2.3 Condition 11(4) c) – Monitoring Schedule

The sampling day selected in 2025 was Thursday. The City considers sampling days within a Tuesday to Thursday period as the most ideal way to minimize sampling day changes due to holidays and laboratory hours. The sampling day selected for 2026 is Tuesday.

2.4 Condition 11(4) d) – Operating Problems & Corrective Actions

The ice storm in the Spring of 2025 was a prime contributor to many of the operational issues experienced at the WWTC. The high flow conditions, unstable power, and lightning strikes contributed to the premature failure of several pumps, analog instruments, and controllers: necessitating their replacement or repair and adding difficulty in the effective operation of the works. For this reason, the City is now exploring options for lightning protection as part of future projects.

Both tertiary filters experienced failures in 2025, which contributed to the elevated levels of total phosphorous in the treated effluent. Filter 2 experienced a chain drive failure on March 24, 2025. Filter 1 remained in service, providing phosphorous removal until June

19, 2025, when it also experienced chain drive failure. The City initially reached out to the manufacturer for assistance, though eventually found a qualified local contractor. On October 29, 2025, filter 2 was returned to service. Filter 1 currently remains offline, though works are planned for 2026 to return it to service. Many of the delays in returning the filters to service were due to a lack of available parts, as the manufacturer is based outside of Canada, with no direct presence in the country. This was further hindered by the fact that the manufacturer had recently eliminated their service programs and no longer had a means of shipping products.

2.5 Condition 11(4) e – Major Maintenance Work

This condition requires a summary of any normal and emergency repairs and maintenance activities carried out on any major infrastructure and equipment. Major maintenance works undertaken in 2025 included:

- i. Emergency cleaning, assessment, and recoating of the secondary digester following a lightning strike and fire;
- ii. Emergency replacement of the Variable Frequency Drives (VFDs) for two return activated sludge pumps;
- iii. Rebuilding of the James St. SPS channel grinders;
- iv. Replacement of the gas detection systems in the boiler building and James St. SPS;
- v. Full rebuild of tertiary filter 2, including media replacement;
- vi. The south biosolids storage lagoon was emptied and the liner replaced; and
- vii. Replacement of all digester gas train valves and hut.

2.6 Condition 11(4) f – Effluent Quality Initiatives

The City undertakes several initiatives aimed at ensuring the quality of the WWTC's effluent:

- i. Nutrient loading reductions entering from the collection system, including monitoring Industrial Commercial and Institutional dischargers to the sanitary sewer and enforcement of the Sewage Discharge By-law;
- ii. Identification of properties and areas contributing to inflow and infiltration;
- iii. Optimization of chemical dosing to reduce alum usage and cost;
- iv. Optimization of various processes, alarming and sampling procedures; and
- v. Entering into Industrial Surcharge Agreements with industries discharging sewage with exceedances of Total Phosphorus, Suspended Solids, and/or Biochemical Oxygen Demand.

2.7 Condition 11(4) g – Calibration and Maintenance

Each of the instruments employed at the WWTC for monitoring the influent and effluent flows are verified and/or calibrated annually, as per their respective manufacturers' recommendations. IndusControl Inc. continues to hold the contract for the annual calibration and verification of the various instruments and analysers in the water and wastewater systems. Excerpts from the 2025 service report have been included as an

attachment.

2.8 Condition 11(4) h – Achieving Design Objectives

All design objectives were achieved more than 50% of the time in 2025 and the influent ADF was 68.7% of its rated capacity of 27,300 m³ per day, approximating 18,765 m³ per day.

While the final effluent total phosphorous was uncharacteristically high for five months of the year, this was largely due in part to the failure of the tertiary filters. As previously outlined, City staff worked diligently to ensure that the necessary repairs were made, and a filter was brought back online as soon as possible. Furthermore, while the objectives were exceeded, no compliance limits were exceeded under normal operating conditions. No proactive actions are required at present.

2.9 Condition 11(4) i – Complaints

There were no complaints attributed to the WWTC in 2025.

2.10 Condition 11(4) j – By-passes, Overflows and Spills

There was one bypass and spill, respectively, at the WWTC in 2025. Both started on April 3, 2025, and were related to the ice storm. They have been summarized as follows:

- i. A spill occurred at the chamber directly upstream of the UV disinfection system as flows exceeded the capacity of the channel. The liquid was observed overflowing the sides of the chamber at 2:20 am on April 3, 2025. City staff attempted to direct the flow with ditches and berms, but the volume proved too great. This continued until 4:39 am when it was determined that flows were unlikely to soon abate and a partial bypass of the UV disinfection system was initiated. An estimated 284 m³ of undisinfected effluent water overflowed from the chamber within a period of 2.3 hours. The spill was reported to the MECP and was designated reference number **1-N7U790**.
- ii. At 4:39 am on April 3, 2025, a partial bypass of the UV disinfection system was initiated. This continued until 11:39 am, when it was decided that the UV disinfection system would be fully bypassed. The full bypass lasted from 11:39 am on April 3, 2025, to 12:25 pm on April 4, 2025, at which time the bypass gate was fully closed and the UV modules bank was returned to be online. An estimated 24,303 m³ was discharged over the course of the partial bypass, while the full bypass was recorded as totaling 89,005 m³, for a combined total of 113,308 m³ over the course of 31.8 hours. The spill was reported to the MECP and was designated reference number **1-N7UTSN**.

2.11 Condition 11(4) k) – Notice of Modifications

No Notice of Modifications to Sewage Works were submitted to the MECP in 2025.

2.12 Condition 11(4) l) – Sanitary Sewer Projects That Reduce Bypass/Overflow

This condition requires discussion of efforts made to achieve conformance with Procedure F-5-1. The City actively works to achieve conformance with Procedure F-5-1. With respect to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination. This item is described in detail in Section 2.9 of the City's Wastewater Collection System Annual Report.

2.13 Condition 11(4) m) – Construction and Commissioning

This condition requires discussion of any updates to the construction and commissioning of the Proposed Works under the ECA. All upgrades were considered Substantially Complete on February 27, 2020, with the following exceptions.

The original upgrade included modifying the existing 6-pass aeration tank to two 3-pass aeration tanks and replacing the existing aeration diffusers with a new fine bubble system. These works were not completed as part of the Process Optimization and Tertiary Treatment project due to structural issues. This portion of the project was re-evaluated, and an open competitive process was initiated in 2023. However, the bids that were received exceeded the approved budget significantly. As such, the project was temporarily shelved. The previous ECA required this work to be completed by October 10, 2023, and an extension was granted in the new ECA to have this work completed by July 18, 2028. City staff are actively working on developing a sequencing plan to address these works as well as additional upgrades to the WWTC that will ensure its continued efficacy.

2.14 Sludge Production

The following information on sludge production from the WWTC is not required by the ECA but is considered relevant for reporting.

The volume of sludge pumped to the anaerobic digesters in 2025 was 34,599 m³. Of this, 12,592 m³ was Thickened Waste Activated Sludge (TWAS). This represents an increase of 5% over 2024. The DAF was used regularly in 2025 and was otherwise online throughout the year, only being offline due to a sump pump failure from December 18, 2024, to January 23, 2025.

GFL was awarded the biosolids hauling contract in 2025 and has provided brief report (attached) summarizing the NASM plans for each site, volumes, dates, and sample results. 33,530 m³ of liquid biosolids Non-Agricultural Source Material (NASM) were removed from the storage lagoons and land applied, starting on June 3, 2025 and concluding operations on November 6, 2025.

3.0 Summary

The WWTC continues to operate with an annual ADF below 80% of its design capacity and maintenance and calibrations are being carried out in accordance with the ECA. Review of monitoring data and laboratory results indicate that ECA objectives and limits are being comfortably met, and that the WWTC is performing effectively.

Attachments

1. 2024 Annual SCADA Report (corrected values for volumes for influent, effluent, and sludge production)
2. Tables 1 to 4 – Performance and Precipitation Data
3. GFL 2025 Annual Report on Biosolids Spreading Details
4. Calibration Reports



Flow Total

Month	WAS to DAF Flow Total FIT01	TWAS Flow Total FIT02	Polymer Flow Total FIT03	Inffluent Flow FIT100	Effluent Flow Total FITEFF01	Lagoon Sludge Flow Total FITD...	Primary Bypass Flow Total ...	Primary Sludge Flow Total FITSL...	RAS Flow Total FIT261	Alum Pump 1 Flow Total L	Alum Pump 2 Flow Total L	Alum Pump 3 Flow Total L	Alum Flow Total L	Digester Gas Flow FIT101	Digester Gas Flow FIT102	Disk Filter 1 Backw ash Flow Total	Disk Filter 2 Backw ash Flow Total
01	6760.9	1041.9	60.991	606035.4	446090.4	3574.8	N/A	2383.5	415322.4	16312.5	0.0	46376.1	62688.6	1203.6	1130.7	10609.1	15438.2
02	7447.1	1133.5	61.219	543862.8	412854.7	4316.2	N/A	2645.5	399297.9	15296.8	0.0	43472.4	58769.3	1292.2	1165.8	8341.7	11458.6
03	7364.8	1149.2	63.477	684284.3	499561.2	4572.4	N/A	2583.5	435394.2	16327.4	0.0	46408.2	62735.6	1242.8	983.0	7944.9	12324.0
04	9391.1	1450.0	80.073	893149.5	687376.5	5612.6	N/A	3125.0	438526.9	15822.7	0.0	44830.1	60652.7	1204.2	908.9	9787.3	12644.7
05	9771.5	1429.6	67.333	623627.0	464948.0	5234.6	N/A	3138.4	421931.3	18736.8	101.1	43250.9	62088.8	1364.5	756.1	6947.0	7657.1
06	10316.3	1137.3	63.668	500000.6	379924.6	4030.1	N/A	2533.4	365830.4	19963.6	0.0	41192.9	61156.5	1175.2	587.5	8573.1	8922.7
07	10735.2	1190.6	64.131	551485.9	403885.4	4352.8	N/A	2865.8	351251.2	21059.4	563.4	42419.9	64042.7	1392.7	617.5	9023.0	13924.0
08	11473.8	1227.8	65.356	425030.6	342049.2	3502.3	N/A	2525.5	329930.6	21046.4	0.0	42398.4	63444.7	1192.6	598.4	11348.8	6464.6
09	9819.4	1171.1	61.684	463354.1	321316.7	3619.0	N/A	2532.7	345655.4	20395.6	0.0	41053.9	61449.5	1074.3	578.8	10890.7	14563.1
10	11539.8	1019.7	62.144	411226.7	333381.9	3550.1	N/A	2607.1	355386.3	21121.3	0.0	42441.7	63563.0	964.1	806.6	8873.0	12911.0
11	9250.3	974.4	62.633	333724.0	312340.0	4399.2	N/A	2950.0	343543.1	17049.9	16081.6	28527.9	61659.5	740.3	44.8	9664.4	11426.5
12	6328.8	577.7	37.137	512129.5	401710.4	4738.7	N/A	2971.7	383866.4	14044.8	54573.1	0.0	68617.9	842.8	49.9	11820.2	10761.7
Avg	9183.3	1125.2	62.487	545659.2	417119.9	4291.9	N/A	2738.5	382161.3	18098.1	5943.3	38531.0	62572.4	1140.8	685.7	9485.3	11541.4
Min	6328.8	577.7	37.137	N/A	312340.0	3502.3	N/A	2383.5	329930.6	14044.8	0.0	0.0	14044.8	740.3	44.8	6947.0	6464.6
Max	11539.8	1450.0	80.073	N/A	687376.5	5612.6	N/A	3138.4	438526.9	21121.3	54573.1	46408.2	122102.6	1392.7	1165.8	11820.2	15438.2
Total	110199.1	13502.8	749.846	6547910.4	5005439.0	51502.9	N/A	32862.0	4585936.1	217177.4	71319.2	462372.2	750868.9	13689.3	8227.9	113823.2	138496.2

**CITY OF ORILLIA
TABLE 1a: WWTC DAILY INFLUENT FLOWS - 2025**

JAN	FLOW m3	FEB	FLOW m3	MAR	FLOW m3	APR	FLOW m3	MAY	FLOW m3	JUNE	FLOW m3	JULY	FLOW m3	AUG	FLOW m3	SEPT	FLOW m3	OCT	FLOW m3	NOV	FLOW m3	DEC	FLOW m3
1	23,802	1	14,245	1	15,111	1	49,981	1	30,088	1	19,855	1	16,758	1	13,705	1	9,999	1	11,777	1	10,579	1	14,798
2	23,412	2	14,596	2	13,783	2	42,188	2	24,423	2	19,625	2	17,308	2	14,032	2	10,663	2	12,568	2	11,273	2	15,358
3	21,472	3	14,244	3	14,528	3	104,829	3	23,761	3	19,117	3	17,128	3	14,097	3	10,619	3	12,543	3	11,129	3	15,057
4	20,520	4	14,327	4	14,720	4	67,974	4	22,369	4	19,108	4	16,885	4	15,067	4	11,686	4	12,569	4	11,495	4	14,553
5	19,659	5	15,269	5	23,629	5	58,694	5	28,948	5	19,317	5	17,363	5	14,556	5	10,569	5	12,720	5	12,202	5	14,411
6	19,809	6	14,684	6	24,644	6	50,824	6	27,610	6	18,800	6	17,740	6	14,488	6	10,357	6	12,271	6	12,338	6	13,629
7	18,213	7	14,436	7	20,451	7	42,601	7	19,857	7	17,928	7	17,054	7	14,630	7	10,423	7	10,761	7	12,813	7	13,675
8	18,612	8	14,796	8	19,814	8	38,407	8	19,835	8	17,999	8	16,960	8	14,735	8	12,317	8	10,166	8	11,217	8	13,154
9	17,279	9	13,790	9	18,672	9	37,014	9	22,752	9	17,709	9	16,549	9	14,995	9	12,852	9	10,787	9	11,447	9	12,986
10	17,890	10	14,410	10	22,308	10	36,012	10	19,513	10	17,696	10	16,826	10	15,120	10	13,097	10	10,323	10	11,542	10	12,709
11	17,251	11	14,551	11	27,601	11	37,212	11	18,437	11	17,485	11	16,489	11	15,311	11	12,792	11	9,866	11	10,665	11	13,544
12	16,801	12	14,827	12	27,493	12	41,097	12	18,394	12	17,216	12	16,241	12	15,251	12	12,669	12	9,680	12	12,367	12	13,972
13	16,119	13	14,129	13	24,646	13	43,151	13	18,743	13	17,003	13	16,181	13	14,969	13	12,971	13	9,589	13	20,790	13	13,182
14	15,798	14	14,394	14	24,333	14	42,491	14	18,464	14	16,590	14	16,417	14	15,068	14	13,093	14	10,071	14	17,352	14	13,450
15	14,844	15	14,058	15	32,880	15	43,406	15	18,147	15	16,485	15	16,410	15	14,258	15	13,215	15	10,869	15	15,044	15	13,210
16	14,705	16	13,619	16	68,030	16	41,884	16	17,833	16	16,691	16	16,157	16	11,752	16	12,766	16	10,377	16	16,282	16	13,218
17	14,976	17	13,816	17	58,864	17	40,298	17	23,488	17	16,786	17	16,266	17	11,587	17	13,225	17	10,242	17	15,300	17	13,648
18	14,281	18	13,913	18	44,379	18	40,926	18	19,226	18	16,662	18	16,206	18	11,066	18	10,164	18	9,747	18	12,744	18	14,628
19	14,154	19	14,198	19	46,765	19	40,907	19	18,514	19	17,714	19	15,208	19	12,204	19	10,172	19	11,258	19	12,928	19	21,526
20	13,709	20	14,963	20	55,864	20	34,703	20	17,990	20	17,184	20	15,377	20	15,279	20	9,531	20	11,593	20	13,341	20	17,552
21	15,570	21	14,648	21	45,951	21	32,301	21	17,825	21	16,830	21	15,326	21	11,467	21	9,463	21	10,748	21	12,233	21	16,161
22	15,463	22	13,896	22	39,850	22	30,660	22	22,868	22	16,756	22	15,555	22	11,306	22	10,411	22	10,489	22	12,050	22	15,597
23	13,423	23	14,412	23	35,229	23	29,486	23	31,155	23	16,799	23	15,188	23	10,432	23	11,197	23	10,098	23	11,786	23	15,199
24	13,247	24	14,480	24	33,590	24	28,543	24	28,579	24	17,076	24	15,161	24	11,087	24	11,332	24	10,545	24	12,904	24	16,111
25	13,138	25	15,951	25	32,076	25	27,494	25	25,661	25	16,671	25	16,062	25	10,709	25	13,287	25	9,593	25	11,547	25	14,123
26	13,319	26	14,980	26	29,922	26	25,998	26	23,946	26	17,018	26	15,500	26	12,444	26	12,782	26	9,984	26	12,533	26	13,334
27	12,761	27	15,314	27	29,036	27	25,263	27	22,150	27	16,756	27	15,674	27	11,254	27	12,920	27	10,287	27	12,640	27	13,793
28	14,636	28	15,920	28	28,499	28	24,951	28	21,228	28	16,720	28	15,903	28	11,687	28	12,721	28	10,479	28	12,289	28	13,820
29	13,715			29	48,955	29	24,440	29	24,365	29	16,190	29	15,777	29	11,224	29	12,865	29	9,918	29	13,802	29	18,071
30	14,704			30	64,582	30	24,057	30	22,751	30	17,328	30	15,342	30	10,495	30	12,687	30	10,602	30	15,475	30	16,580
31	14,973			31	74,875			31	21,547			31	14,759	31	9,752			31	12,327			31	15,818
TOTAL	508,255		406,865		1,061,078		1,207,788		690,468		525,113		501,772		404,024		352,842		334,847		390,104		456,863

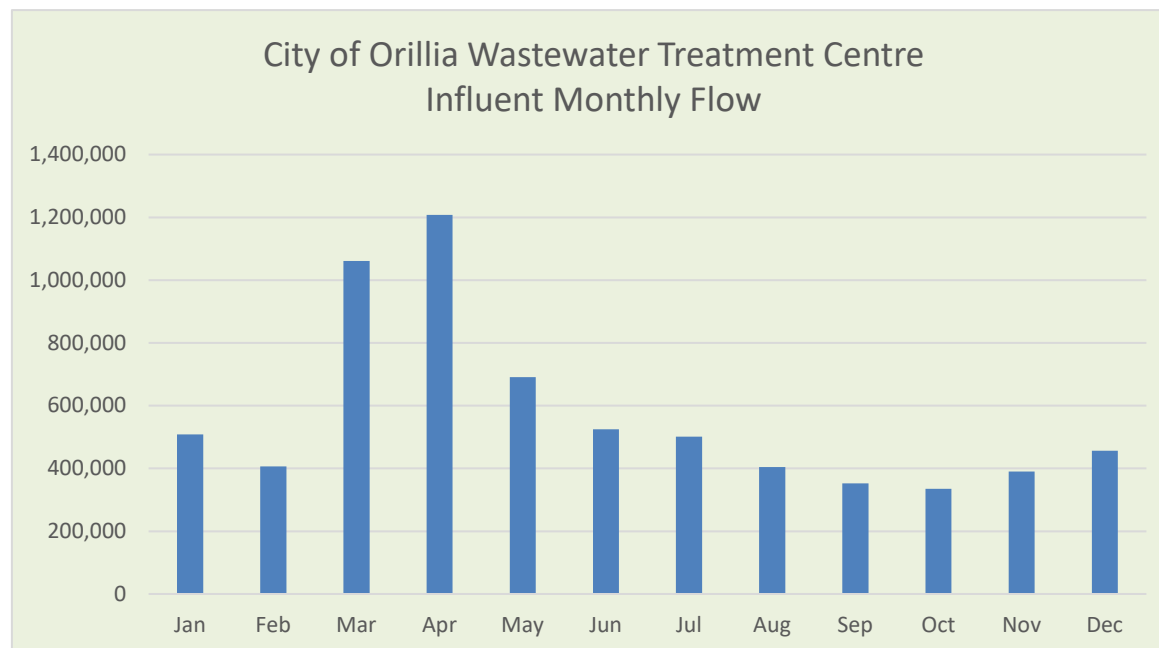
ANNUAL TOTAL FLOW = 6,840,019 m³

March 12, 2026

**CITY OF ORILLIA
WASTEWATER TREATMENT CENTRE
MONTHLY TOTAL FLOWS 2025**

Month	Total Flow m3
Jan	508,255
Feb	406,865
Mar	1,061,078
Apr	1,207,788
May	690,468
Jun	525,113
Jul	501,772
Aug	404,024
Sep	352,842
Oct	334,847
Nov	390,104
Dec	456,863
Total	6,840,019

Min (Monthly)	334,847
Max (Monthly)	1,207,788
Avg (Monthly)	570,002



**CITY OF ORILLIA
TABLE 1b: WWTC DAILY EFFLUENT FLOWS - 2025**

JAN	FLOW m3	FEB	FLOW m3	MAR	FLOW m3	APR	FLOW m3	MAY	FLOW m3	JUNE	FLOW m3	JULY	FLOW m3	AUG	FLOW m3	SEPT	FLOW m3	OCT	FLOW m3	NOV	FLOW m3	DEC	FLOW m3
1	16,810	1	10,579	1	11,540	1	36,609	1	15,954.30	1	14,435	1	11,719	1	9,760	1	10,390	1	10,525	1	10,076	1	10,630
2	16,860	2	11,223	2	12,674	2	30,951	2	16,625.70	2	14,442	2	12,153	2	10,095	2	10,506	2	9,841	2	10,821	2	11,237
3	15,713	3	11,067	3	12,561	3	93,334	3	14,756.80	3	13,931	3	11,715	3	10,242	3	10,815	3	11,055	3	10,248	3	11,047
4	14,872	4	11,365	4	12,621	4	61,000	4	14,276.30	4	14,428	4	11,413	4	10,308	4	11,050	4	10,275	4	10,650	4	11,052
5	13,971	5	11,596	5	16,974	5	42,243	5	14,560.10	5	14,920	5	11,991	5	10,553	5	10,316	5	10,080	5	11,464	5	11,076
6	14,018	6	10,923	6	17,150	6	37,885	6	13,900.10	6	13,608	6	12,347	6	10,630	6	10,089	6	10,507	6	11,084	6	10,997
7	13,199	7	11,057	7	15,715	7	31,497	7	13,909.60	7	13,554	7	11,669	7	10,413	7	10,505	7	10,512	7	10,963	7	10,852
8	13,298	8	10,927	8	14,539	8	27,456	8	14,144.80	8	13,160	8	12,276	8	10,520	8	10,106	8	9,813	8	10,906	8	10,573
9	13,080	9	10,872	9	13,549	9	24,288	9	13,274.10	9	13,411	9	11,593	9	10,397	9	10,109	9	9,644	9	10,493	9	10,578
10	13,202	10	11,638	10	16,471	10	22,058	10	13,227.20	10	13,002	10	11,774	10	10,472	10	10,236	10	9,740	10	10,393	10	10,314
11	12,695	11	11,311	11	19,474	11	21,124	11	12,770.90	11	13,228	11	12,024	11	10,609	11	10,280	11	10,558	11	10,234	11	10,246
12	12,396	12	11,264	12	18,869	12	19,909	12	12,803.80	12	12,548	12	11,408	12	10,880	12	10,052	12	9,585	12	10,688	12	10,906
13	12,045	13	11,400	13	17,420	13	19,228	13	13,368.60	13	12,362	13	11,687	13	10,762	13	10,220	13	10,748	13	15,164	13	10,431
14	12,495	14	11,177	14	16,791	14	18,851	14	13,484.80	14	12,244	14	11,336	14	10,760	14	10,147	14	9,689	14	13,398	14	10,342
15	11,442	15	10,721	15	23,663	15	18,609	15	13,481.10	15	12,264	15	11,333	15	10,501	15	10,373	15	9,574	15	12,019	15	10,140
16	11,801	16	11,565	16	48,808	16	17,218	16	13,272.90	16	11,913	16	11,264	16	10,965	16	10,286	16	10,690	16	12,261	16	10,183
17	12,381	17	11,035	17	41,989	17	16,657	17	14,437.40	17	12,318	17	11,713	17	11,065	17	10,114	17	10,107	17	12,012	17	10,464
18	11,441	18	11,556	18	32,792	18	16,453	18	13,538.80	18	12,008	18	10,960	18	10,835	18	9,895	18	10,189	18	11,243	18	11,280
19	11,899	19	13,921	19	33,990	19	28,899	19	13,217.40	19	12,917	19	11,035	19	11,403	19	10,016	19	11,003	19	11,539	19	15,543
20	11,156	20	11,112	20	39,794	20	21,948	20	13,845.30	20	12,356	20	10,687	20	11,711	20	10,299	20	10,822	20	11,040	20	13,263
21	9,780	21	11,059	21	35,365	21	20,404	21	12,734.70	21	12,293	21	10,963	21	10,908	21	9,691	21	9,888	21	10,899	21	12,903
22	11,895	22	10,590	22	29,590	22	19,445	22	16,240.50	22	11,867	22	10,596	22	10,812	22	9,875	22	10,130	22	10,612	22	12,027
23	11,482	23	11,787	23	25,265	23	17,826	23	21,317.00	23	12,478	23	10,834	23	10,220	23	10,508	23	9,827	23	11,017	23	12,032
24	11,398	24	11,795	24	23,721	24	17,496	24	20,409.00	24	12,059	24	10,686	24	10,664	24	10,181	24	10,298	24	10,919	24	12,538
25	11,774	25	12,322	25	22,700	25	17,415	25	18,145.20	25	12,764	25	10,989	25	10,365	25	9,826	25	10,538	25	10,542	25	11,318
26	11,436	26	11,988	26	20,918	26	16,235	26	17,035.60	26	11,896	26	10,807	26	11,229	26	10,470	26	9,887	26	11,254	26	10,979
27	11,327	27	12,055	27	20,900	27	15,703	27	15,799.50	27	12,195	27	10,709	27	10,590	27	9,963	27	9,909	27	11,052	27	11,190
28	11,422	28	12,089	28	20,203	28	15,761	28	15,023.60	28	12,013	28	10,870	28	10,644	28	10,200	28	10,050	28	10,795	28	11,759
29	11,437			29	34,704	29	15,532	29	17,373.10	29	11,718	29	11,694	29	10,278	29	11,145	29	10,231	29	11,122	29	13,823
30	11,829			30	46,117	30	14,822	30	16,343.50	30	11,827	30	11,262	30	10,151	30	10,075	30	10,345	30	11,221	30	12,761
31	10,860			31	52,951	31	15,552.60	31	15,552.60	31	11,314	31	10,327	31	10,327	31	11,516	31	11,516	31	11,516	31	12,601
TOTAL	389,410		319,994		769,819		776,855		464,824		384,157		352,820		329,065		307,735		317,572		336,130		355,083

ANNUAL TOTAL FLOW = 5,103,464 m³

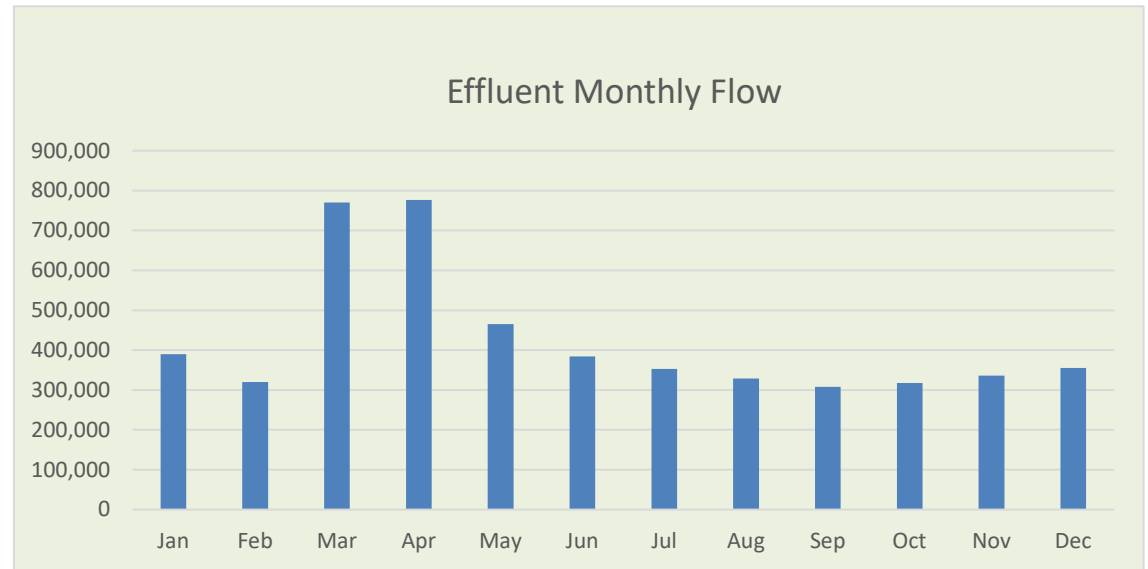
5 YEAR AVERAGE ANNUAL FLOW (2021-2025) = 5,366,794 m³

March 10, 2026

**CITY OF ORILLIA
WASTEWATER TREATMENT CENTRE
MONTHLY TOTAL FLOWS**

Month	Total Flow m3
Jan	389,410
Feb	319,994
Mar	769,819
Apr	776,855
May	464,824
Jun	384,157
Jul	352,820
Aug	329,065
Sep	307,735
Oct	317,572
Nov	336,130
Dec	355,083
Total	5,103,464

Min (Monthly)	307,735
Max (Monthly)	776,855
Avg (Monthly)	425,289

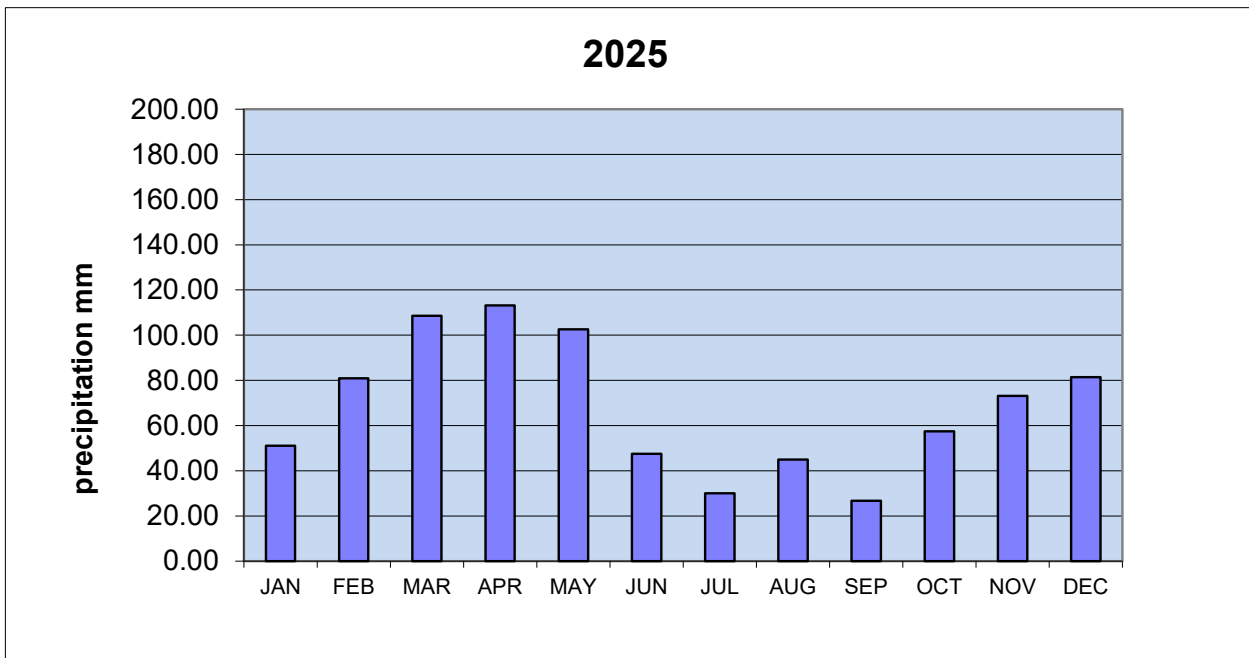


Total Effluent Flow (m3)

	2025	2024	2023	2022	2021
January	389,410	446,090	615,468	385,303	438,247
February	319,994	412,855	525,538	395,125	380,607
March	769,819	499,561	611,469	570,969	527,301
April	776,855	687,377	698,307	528,974	483,848
May	464,824	464,948	545,252	429,563	493,098
June	384,157	379,925	470,044	441,257	398,864
July	352,820	403,885	494,622	390,332	499,241
August	329,065	342,049	439,827	399,988	420,113
September	307,735	321,317	372,684	374,136	421,792
October	317,572	333,382	407,686	384,967	456,565
November	336,130	312,340	379,453	378,557	466,968
December	355,083	401,710	455,676	448,483	594,744
Total (m3)	5,103,464	5,005,439	6,016,026	5,127,654	5,581,388
5 Year Average (m3)	5,366,794				

**City of Orillia
TABLE 2: PRECIPITATION 2025 in mm**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.0	0.0	0.8	0	16.9	0.0	0.1	0.0	0.0	0.0	0.0	0
2	12.2	1.7	0.0	46.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
3	2.6	4.9	0.0	17.1	0.0	0.0	2.0	0.0	0.0	0.0	2.9	0.8
4	3.4	0.0	4.5	0	0.0	4.4	0.0	0.0	10.9	0.0	0.0	1.8
5	1.0	0.0	12.1	9.7	1.1	2.8	19.2	0.0	0.0	0.0	11.2	0
6	0.0	3.4	0.4	0	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.1
7	0.2	4.7	0.4	1.3	0.7	0.0	0.0	0.0	0.3	9.9	2.2	1.6
8	0.0	0.8	0.1	0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0
9	0.0	2.7	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9
10	3.3	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	9.6
11	2.1	0.9	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0
12	3.5	7.5	0.0	0	0.0	0.0	0.3	0.1	0.0	0.0	6.6	1
13	0.5	16.7	0.0	0	0.0	0.0	0.0	0.0	0.2	0.0	16.1	1.8
14	0.7	4.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.2
15	1.0	5.5	3.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.2
16	0.4	18.3	8.9	0	0.9	0.0	0.0	0.0	0.0	0.0	0.3	0.1
17	0.4	3.3	0.1	0	16.8	0.0	1.0	6.2	0.0	2.5	1.2	1.8
18	2.2	0.5	0.0	8.6	0.0	0.0	0.0	0.0	0.0	2.8	0	0.4
19	0.0	0.0	0.0	21.8	0.0	14.4	0.3	20.9	0.0	11.8	3.1	10.2
20	0.0	0.0	1.3	0	0.0	0.0	2.2	0.4	0.0	0.9	0	0
21	0.0	0.0	0.0	2.8	5.2	2.4	0.0	0.0	1.4	0.0	2.4	0.6
22	0.1	0.0	0.0	0	23.4	0.0	0.0	0.0	10.1	0.8	1.9	0.5
23	0.7	0.0	0.0	0	14.9	0.0	0.0	0.0	3.3	0.3	2.3	4.7
24	0.0	0.0	4.3	0	4.1	0.0	3.7	0.0	0.0	2.5	10.2	0
25	0.0	0.2	0.6	0.4	0.2	0.0	0.0	3.8	0.5	0.1	0.4	0
26	2.9	0.0	0.0	3.1	3.3	5.7	0.5	2.2	0.0	0.0	4.7	13.1
27	2.1	0.3	0.0	0	0.0	4.4	0.0	0.0	0.0	0.0		0.1
28	6.2	4.1	15.0	0	4.7	0.0	0.0	6.4	0.0	0.0		10.1
29	1.6		25.6	0	9.0	0.0	0.0	0.0	0.0	0.0		9.9
30	0.0		29.8	0	0.8	13.4	0.0	0.0	0.0	11.4		1.5
31	0.0		1.1		0.5		0.0	0.0		12.4		7.9
TOTAL	51.10	80.90	108.60	113.20	102.60	47.50	30.00	44.90	26.70	57.40	73.10	81.40



CITY OF ORILLIA

TABLE 3: 2025 WWTC PERFORMANCE REPORT

MONTH	Flow (ML)			CBOD (mg/l)				Suspended Solids (mg/l)				Total Phos (mg/l)				TKN (mg/l)				Disolved Reactive Phosphorous (mg/l)	Total Ammonia Nitrogen (TAN) (mg/l)				Nitrite (mg/l)			Nitrate (mg/l)			E-COLI FINAL (cfu/100ml)*
	MONTHLY	AVG. DAILY	MAX. DAILY	BOD RAW	CBOD FINAL	% REM	LOAD kg	RAW	FINAL	% REM	LOAD kg	RAW	FINAL	% REM	LOAD kg	RAW	FINAL	% REM	LOAD kg	RAW***	RAW	FINAL	% REMOVED	LOAD kg	RAW	FINAL	LOAD kg	RAW	FINAL	LOAD kg	
JAN.	389.41	12.56	16.86	150.00	1.22	99.19	475	160.00	2.29	98.57	892	5.85	0.04	99.32	16	37.40	2.28	93.90	888	3.53	33.70	1.20	96.44	467	0.05	3.02	1,176.02	0.05	15.49	6,032	
FEB.	320.43	11.43	13.92	214.00	3.00	98.60	961	139.60	3.05	97.82	977	8.78	0.06	99.32	19	27.30	26.03	4.65	8,341	2.99	20.70	16.28	21.35	5,217		0.26	83.31		6.54	2,096	4.00
MAR	770.26	16.10	22.40	44.40	3.83	91.37	2,950	87.90	2.63	97.01	2,026	1.99	0.10	94.97	77	17.90	19.93	-11.34	15,351	0.44	8.64	12.20	-41.20	9,397	0.10	0.18	138.65	0.20	2.78	2,141	21.40
APR	778.62	25.90	93.33	200.00	5.18	97.41	4,033	77.30	6.73	91.29	5,240	3.57	0.19	94.68	148	26.80	15.48	42.24	12,053	1.43	14.00	9.30	33.57	7,241	0.20	0.22	171.30	0.20	2.06	1,604	90.18
MAY	465.42	14.99	21.32	166.00	3.36	97.98	1,564	218.00	1.66	99.24	773	4.92	0.09	98.17	42	47.20	18.50	60.81	8,610	2.64	37.70	12.63	66.50	5,878	0.10	0.73	339.76	0.20	6.43	2,993	1.00
JUN	384.75	12.81	14.92	142.00	3.00	97.89	1,154	271.00	1.38	99.49	531	6.28	0.07	98.89	27	36.90	1.13	96.94	435	2.84	23.00	0.04	99.83	15	0.05	0.07	26.93	15.60	15.13	5,821	1.19
JUL	353.34	16.19	17.74	148.00	2.80	98.11	989	210.00	1.68	99.20	594	5.50	0.12	97.82	42	32.10	1.16	96.39	410	2.91	22.30	0.11	99.51	39	0.20	0.13	45.93	0.10	18.30	6,466	1.32
AUG	329.53	10.62	11.71	173.00	3.00	98.27	989	519.00	1.40	99.73	461	9.96	0.12	98.80	40	51.30	1.34	97.39	442	3.15	29.20	0.14	99.52	46	0.10	0.11	36.25	0.20	17.65	5,816	2.34
SEP	308.16	10.26	11.14	272.00	2.75	98.99	847	441.00	4.75	98.92	1,464	11.40	0.14	98.77	43	60.00	0.89	98.52	274	3.84	37.6	0.22	99.41	68	0.06	0.23	70.88	0.06	15.61	4,810	1.68
OCT	317.94	10.24	11.52	257.00	2.80	98.91	890	320.00	4.00	98.75	1,272	6.44	0.16	97.52	51	41.70	1.00	97.60	318	5.08	35.50	0.12	99.66	38	0.13	0.26	82.66	0.06	18.50	5,882	3.61
NOV	336.56	11.20	15.16	156.00	2.25	98.56	757	284.00	2.75	99.03	926	5.06	0.10	98.02	34	29.60	1.15	96.11	387	1.32	27.00	0.15	99.44	50	0.00	0.24	80.77	0.01	16.83	5,664	
DEC	355.52	11.45	15.54	230.00	2.00	99.13	711	305.00	2.00	99.34	711	7.00	0.06	99.14	21	31.70	1.78	94.38	633	1.46	26.40	0.38	98.56	135	0.03	0.21	74.66	0.06	16.66	5,923	
ANNUAL AVG**	425.83	13.65	22.13	179.37	2.93	97.87	1,360	252.73	2.86	98.20	1,322	6.40	0.10	97.95	47	36.66	7.56	72.30	4,012	2.64	26.31	4.40	72.72	2,383	0.09	0.47	193.93	1.52	12.67	4,604	14.08
ANNUAL TOTAL	5,109.94						15,609				15,867				560				48,142				28,591							55,248	

* geometric mean
 **as per ECA, this is an average of the monthly averages
 ***as per ECA the Final Effluent is no longer required to be tested for Dissolved Reactive Phosphorus
 RAW = raw sewage (influent)
 FINAL = final effluent

POPULATION = 32,456
 March 10, 2026

ECA # 2819-AAPRLT EFFLUENT LIMITS
 CBOD = 15 mg/l MONTHLY AVERAGE 15
 SUSPENDED SOLIDS = mg/l MONTHLY AVERAGE
 TOTAL PHOSPHORUS = 0.18 mg/l MONTHLY AVERAGE CONCENTRATION
 pH = between 6.0 to 9.5 inclusive, at all times

LAKE SIMCOE PHOSPHORUS REDUCTION STRATEGY LIMITS
 TOTAL PHOSPHORUS = 0.1 mg/l ANNUAL AVERAGE CONCENTRATION - TOTAL ANNUAL LOADING TO A MAXIMUM OF 996 kg

CITY OF ORILLIA
TABLE 4: FINAL EFFLUENT FIELD PH MEASUREMENTS - 2025

DAY	Field pH Readings of Final Effluent											
	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	7.52				7.50							
2												
3							7.45			7.31		
4				8.12					6.72			7.88
5						7.32						
6		7.38	7.45								7.70	
7								7.13				
8	7.02				7.57							
9										7.40		
10				7.62			7.44					
11									6.87			7.69
12						6.86						
13		7.53	7.62								7.74	
14								7.32				
15	7.02				7.61							
16										6.86		
17				7.63			7.17					
18									7.24			7.70
19						7.22						
20		7.56	7.49								7.80	
21								6.98				
22	7.23				7.45							7.81
23										7.61		
24				7.44			7.08					
25									7.27			
26						7.40						
27		7.44	7.86								7.75	
28								7.05				
29	7.26				7.67							
30										7.45		
31							7.13					



2025 Annual Report

4400-4LBLXD

Prepared for:

City of Orillia

Prepared by:

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Jennifer Krissak

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January 19, 2026

Biosolids Spreading Details

a) a complete and up to date record showing when, and the source and quantity of biosolids applied or disposed at each site

See Table 1.

Table 1: City of Orillia – Liquid Biosolids Land Application Program

NASM Expiry Date (d/m/y)	NASM ID	Farmer	Farm	Farm Location (Lot, Concession, Township)	Area (ha)	M3	Date Spread
31/12/2029	62536	Norm Hodkinson	Old Farm	Lot 17, Conc 1, Rama Township	21.44	1594	June 3 - 4, 2025
31/12/2025	24715	Norm Hodkinson	Home Farm	Lot 14 & 15, Conc 12, Ramara Township	11.34	1134	July 9 - 10, 2025
31/12/2025	24481	Kevin Scott	Home Farm	Lot 9 & 10, Conc 13, Oro Township	5.72	462	July 17 - 18, 2025
31/12/2025	24811	Jamie Tofflemire	Hunt Camp Farm	Lot 14 & 15, Conc 7 Northern Division, Orillia Township	41.12	5120	August 6 - 14, 2025
31/12/2025	24481	Kevin Scott	Home Farm	Lot 9 & 10, Conc 13, Oro Township	6.67	600	August 14, 2025
31/12/2025	24810	Jamie Tofflemire	Jamie Will's Farm	Lot 20, Conc 11, Mara Township	25.1	3040	August 19 - 22, 2025
31/12/2029	62789	Michael Sternberg	Home Farm	Lot 8, 9, & 10, Conc 7, Mara Township	58.14	6640	August 26 - September 10, 2025
31/12/2026	24988	Gary Harrington	Basil Farm	Lot 8 & 9, Conc 5, Mara Township	35.35	4440	September 11 - 19, 2025
31/12/2029	62860	Michael Sternberg	Jakes Farm	Lot 19 & 20, Conc 10, Mara Township	26.8	2528	October 1 - 2, 2025
31/12/2029	62536	Norm Hodkinson	Old Farm	Lot 17, Conc 1, Rama Township	25	2340	October 6 - 7, 2025
31/12/2029	62860	Michael Sternberg	Jakes Farm	Lot 19 & 20, Conc 10, Mara Township	22.75	1808	October 8 - 9, 2025
31/12/2029	62956	Michael Sternberg	MacDonald Home Farm	Lot 8, Conc 10, Mara Township	30.59	3824	November 4 - 6, 2025

Total: 33,530 M3

Spills & Incidents

b) details as to the nature of any spill or upset occurring and the action taken for clean-up, correction and prevention of future occurrences:

- Region of Orillia – Liquid Land Application Program
 - 0 spills/incidents to report

Compliance

c) a statement as to the compliance with all conditions of this Certificate and with the inspections, monitoring, and reporting requirements of the conditions herein

GFL Environmental remains in compliance with all conditions of this Certificate and with the inspections, monitoring and reporting requirements of the conditions herein.

Inspection #1: Site inspection by Dirk Woudenberg (MECP Officer) at Hodgkinson - Old Farm found a dug well and a drainage tile that were not identified. No biosolids were spread within 90m of this well so this was considered to be an administrative reporting issue and not a compliance issue.

Corrective actions: the Site Map was updated to show the dug well, 90m well setback and tile outlet, and the NASM Application Area was reduced according to the well setback.

Inspection #2: Site inspection by Dirk Woudenberg (MECP Officer) at Jamie Tofflemire - Hunt Camp Farm.

No corrective actions needed.

Biosolids Analysis

d) Results of all analysis conducted on biosolids, soil and water as required by the Conditions of this Certificate and the Provisional Certificates of Approval for the Approved Organic Soil Conditioning Sites defined under Condition 15 of this Certificate;

See Table 2.

Table 2: City of Orillia – Liquid Biosolids Analysis 2025

Sample Date	Total Solids %	TKN %	NH3-N mg/kg	NO3-N mg/kg	TP %	K %	As mg/kg	Cd mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Hg mg/kg	Mo mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	Zn mg/kg	Ecoli CFU/g
May 14, 2025 (North Lagoon)	4.76	2.45	17,800.00	65.00	3.10	0.21	13.00	0.81	150.00	30.00	410.00	0.34	5.80	27.00	34.00	3.80	620.00	59,395
May 14, 2025 (North Lagoon)	4.60	2.61	17,100.00	65.00	3.50	0.25	14.00	0.93	180.00	29.00	430.00	0.43	6.70	24.00	36.00	4.50	730.00	40,035
May 14, 2025 (North Lagoon)	4.96	2.33	17,800.00	65.00	3.40	0.23	14.00	0.86	170.00	30.00	440.00	0.34	6.70	24.00	36.00	4.40	710.00	62,625
May 14, 2025 (North Lagoon)	5.01	2.21	17,300.00	65.00	2.80	0.20	11.00	0.76	140.00	27.00	360.00	0.76	5.30	23.00	31.00	3.50	570.00	34,587
May 14, 2025 (South Lagoon)	5.58	3.17	18,100.00	65.00	2.80	0.28	17.00	0.65	99.00	25.00	350.00	0.25	4.80	22.00	30.00	3.00	500.00	33,004
May 14, 2025 (South Lagoon)	5.32	3.20	17,100.00	65.00	2.60	0.27	14.00	0.62	96.00	21.00	320.00	0.21	4.60	16.00	25.00	2.80	470.00	36,857
May 14, 2025 (South Lagoon)	4.67	4.22	21,000.00	65.00	2.70	0.29	14.00	0.58	99.00	22.00	350.00	0.24	4.80	17.00	25.00	2.90	490.00	27,786
May 14, 2025 (South Lagoon)	4.73	2.63	22,600.00	65.00	3.00	0.32	20.00	0.64	110.00	23.00	400.00	0.23	5.10	18.00	28.00	3.20	550.00	47,353
June 17, 2025 (North Lagoon)	5.14	6.34	14,300.00	60.00	2.80	0.27	21.00	0.88	99.00	26.00	400.00	0.52	5.00	23.00	28.00	4.00	620.00	21,300
June 17, 2025 (South Lagoon)	3.49	7.91	27,300.00	90.00	2.90	0.37	13.00	0.87	74.00	25.00	420.00	0.57	7.00	23.00	29.00	4.00	700.00	816,400
July 17, 2025 (North Lagoon)	4.08	5.40	18,000.00	70.00	3.60	0.30	17.00	1.10	180.00	33.00	520.00	0.49	7.00	30.00	42.00	5.00	780.00	11,961

July 17, 2025 (South Lagoon)	3.71	6.10	23,000.00	80.00	2.70	0.31	14.00	0.86	120.00	27.00	420.00	0.49	7.00	24.00	30.00	4.00	660.00	20,782
July 31, 2025 (North Lagoon)	1.61	8.00	38,000.00	190.00	3.00	0.63	16.00	0.83	110.00	25.00	380.00	0.44	5.00	23.00	27.00	6.00	640.00	7,391
July 31, 2025 (South Lagoon)	2.64	6.80	30,000.00	110.00	2.70	0.26	8.00	0.74	240.00	22.00	320.00	0.26	6.00	20.00	21.00	4.00	630.00	89,356
August 21, 2025 (North Lagoon)	2.91	7.20	29,000.00	100.00	3.00	0.28	8.00	0.69	200.00	21.00	400.00	0.38	7.00	20.00	20.00	4.00	640.00	59,483
August 21, 2025 (South Lagoon)	3.10	7.10	30,000.00	100.00	3.90	0.39	14.00	0.86	240.00	26.00	500.00	0.63	9.00	23.00	28.00	4.00	780.00	18,333
September 18, 2025 (North Lagoon)	9.28	2.60	12,000.00	30.00	3.20	0.25	20.00	1.00	80.00	32.00	430.00	0.60	7.00	26.00	42.00	4.00	640.00	1,595
September 18, 2025 (South Lagoon)	7.34	2.60	13,000.00	40.00	3.10	0.27	21.00	1.00	69.00	31.00	430.00	0.60	8.00	24.00	42.00	4.00	630.00	3,610
October 16, 2025 (North Lagoon)	4.50	4.50	18,000.00	70.00	3.70	0.35	21.00	1.30	160.00	37.00	560.00	0.60	9.00	31.00	50.00	5.00	880.00	1,156



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information

Make: Rosemount
Model: 8712DR12N0M4
Order Code: N/A
Serial No.: 860177174
Tag: FIT02
Job Location: DAF Bldg TWAS Feed

Service Information

Date: May 12, 2025
Report No: CO1626-2505-01
Job No: CO1626-2505

Flow Details

Unit: L/Min
Flow Range: 0-600
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 600

Sensor Details

Line size: 3 Inch
Flow Cal Tube No.: 0964106009601005
Mounting: Remote

Inst. Reading	AS FOUND	AS LEFT
Totalizer(L)	339560960	339561152
Flow (L/Min)	0	0

Maintenance Checklist

Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK

Remarks

Instrument Test Information and Results

Test-Point as Per Calibration KIT	Calculated Flow (FPS)	Calculated O/P (mA)	UUT Display (FPS)	UUT Measured Output (mA)	Deviation (FPS)
0.00	0.00	4.00	0.00	3.99	0.00
3.00	3.00	5.60	3.02	5.62	-0.02
10.00	10.00	9.33	9.98	9.30	0.02
30.00	30.00	20.00	29.99	19.99	0.01

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	NA
Manufacturer:	Rosemount	Fluke	NA
Model No:	8714D	179	NA

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result:	<input checked="" type="checkbox"/> Passed	<input type="checkbox"/> Failed	<input type="checkbox"/> Not Verified
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Overall Remarks: Measurement Works within Specification.
Verification Test Passed.

Service Technician : Sanket Trada

Printed Date: May 12, 2025

Stamp/Signature

Plant operator: FIT01 (WAS TO DAF)

Device information

Location	Orillia WWTP (Pri Basement)
Device tag	FIT-01 (WAS TO DAF)
Module name	K323-00
Nominal diameter	DN80 / 3"
Device name	Promag 400
Order code	5W4C80-R567/0
Serial number	S4084B16000
Firmware version	02.01.00



Calibration

Calibration factor	0.9849
Zero point	0.8

Verification information

Operating time (counter)	1421d02h35m15s
Date/time (manually recorded)	12.05.25 14:57
Verification ID	5
Verification mode	Standard verification

Overall verification result*

Passed Details see next page

*Result of the complete device functionality test via Heartbeat Technology

Confirmation

Heartbeat Verification verifies the function of the flowmeter within the specified measuring tolerance, over the useful lifetime of the device, with a total test coverage > 94 %, and complies with the requirements for traceable verification according to DIN EN ISO 9001:2008 – Section 7.6 a. (attested by TÜV-SÜD Industrieservices GmbH)

Notes

12.05.25

Date



Operator's signature

Inspector's signature

Plant operator: FIT01 (WAS TO DAF)

Device identification and verification identification

Serial number	S4084B16000
Device tag	FIT-01 (WAS TO DAF)
Verification ID	5



Sensor	✔ Passed
Shot time symmetry	✔ Passed
Hold voltage symmetry	✔ Passed
Coil current loss	✔ Passed
Coil current stability	✔ Passed
Coil resistance	✔ Passed
E1 electrode cable	✔ Passed
E2 electrode cable	✔ Passed
EPD electrode cable	✔ Passed
Sensor electronic module (ISEM)	✔ Passed
Supply voltage	✔ Passed
Internal voltages	✔ Passed
Linearity and reference voltage	✔ Passed
Offset of electrode measuring circuit	✔ Passed
Hold voltage feedback	✔ Passed
Shot voltage feedback	✔ Passed
Electronic current loss	✔ Passed
Coil circuit measurement	✔ Passed
Shot control circuit	✔ Passed
Electrode signal integrity	✔ Passed
System status	✔ Passed
I/O module	✔ Passed
Input/output 1	✔ Passed
Input/output 2	? Not done
Input/output 3	? Not done

Plant operator: FIT01 (WAS TO DAF)

Device identification and verification identification

Serial number	S4084B16000
Device tag	FIT-01 (WAS TO DAF)
Verification ID	5



Test item with value	Unit	Actual	Min.	Max.	Visualization
Sensor					
Shot time symmetry deviation		1.0000	0.9000	1.1000	□□□□■□□□□□
Hold voltage symmetry deviation		1.0000	0.9000	1.1000	□□□□■□□□□□
Coil current loss deviation	%	0.0000	-10.0000	10.0000	□□□□■□□□□□
Coil current offset	%	0.008123	-0.1000	0.1000	□□□□■□□□□□
Coil current deviation	%	0.0000	-0.1000	0.1000	□□□□■□□□□□
Coil resistance value	Ohm	82.5	50.0	240.0	□■□□□□□□□□
E1 electrode impedance	Ohm	477.86			
E2 electrode impedance	Ohm	476.09			
EPD electrode impedance	Ohm	497.53			
E1/E2 electrode impedance on E1	Ohm	514.94			
E1/E2 electrode impedance on E2	Ohm	513.21			
Sensor electronic module (ISEM)					
Supply voltage 30.0V	V	31.15	27.000	35.000	□□□□■□□□□□
Linearity and reference voltage 1		0.9996	0.9900	1.0100	□□□□■□□□□□
Linearity and reference voltage 2		0.9996	0.9900	1.0100	□□□□■□□□□□
Measuring point offset		-19.3177	-100.0000	100.0000	□□□■□□□□□□
Hold voltage feedback value	%	3.07	-10.0	10.0	□□□□□□■□□□
Shot voltage feedback value	%	-0.67	-20.0	20.0	□□□□■□□□□□
Electronic current loss deviation	%	0.31	-10.0000	10.0000	□□□□■□□□□□
Coil circuit value	%	0.00	-1.0	1.0	□□□□■□□□□□
Shot control circuit value	%	-0.074	-10.0	10.0	□□□□■□□□□□
Electrode signal integrity deviation	%	2.20	-40.0	40.0	□□□□■□□□□□

Test item with value	Unit	Actual	Min.	Max.	Visualization
I/O module					
Output 1 value 1	mA	9.6801	9.4410	9.8337	□□□□□■□□□□
Output 1 value 2		0.0000	0.0000	0.0000	□□□□□□□□□□
Output 2 value 1		0.0000	0.0000	0.0000	□□□□□□□□□□
Output 3 value 1		0.0000	0.0000	0.0000	□□□□□□□□□□

Plant operator: FIT01 (WAS TO DAF)

Device identification and verification identification

Serial number	S4084B16000
Device tag	FIT-01 (WAS TO DAF)
Verification ID	5



Test item with value	Unit	Actual
Process conditions		
Volume flow value verification	m ³ /d	423.1042
Conductivity value verification	µS/cm	-nan
Electronic temperature	°F	87.4
Current difference potential	V	-0.06137
Current potential electrode 1	V	0.04899
Current potential electrode 2	V	0.1115
Current potential electrode Pipe GND	V	0.003904



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information

Make: Siemens
Model: 7ME65110-4HJ11-1AA0
Order Code: N/A
Serial No.: 7ME651753614T247
Tag: FIT-SLG01
Job Location: Primary bldg basement-primary sludge

Service Information

Date: May 12, 2025
Report No: CO1626-2505-03
Job No: CO1626-2505

Flow Details

Unit: m3/hr
Flow Range: 250
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 250

Sensor Details

Unit: m3/hr
Diameter: 150mm 6 inch
Mounting: Compact

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	568976	568980
FLOW (m3/hr)	26.37	23.38

Maintenance Checklist

Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK

Remarks

Instrument Test Information and Results

Test-Point	UUT Display (m3/hr)	Flow measured on Hand Held Calibrator (m3/hr)	Deviation (m3/hr)
1	19.98	21.07	-1.09
2	25.34	26.99	-1.65
3	27.92	29.08	-1.16

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Electrical Multimeter	Clamp on calibrator	NA
Manufacturer:	Fluke	Greyline Instruments Inc.	NA
Model No:	179	PDFM 5.1	NA

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Failed** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Verification Test Passed.

Service Technician : Sanket Trada

Stamp/Signature

Printed Date: May 12, 2025

End of Report

Version: 19-12



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information

Make: Siemens
Model: 7ME69101AA-10113A0
Order Code: N/A
Serial No.: N1T2050131
Tag: FITDG01
Job Location: Digester bldg basement-lagoon
sludge

Service Information

Date: May 14, 2025
Report No: CO1626-2505-04
Job No: CO1626-2505

Flow Details

Unit: m3/day
Flow Range: 0-5000
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 5000

Sensor Details

Diameter: 150mm 6 inch
Mounting: Compact

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	1168	1170
FLOW (m3/day)	203	213

Maintenance Checklist	Remarks
Visual Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Electrical Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Sensor Installation: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Transmitter Installation: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	

Instrument Test Information and Results

Test-Point	UUT Display (m3/day)	Flow measured on Hand Held Calibrator (m3/day)	Deviation (m3/day)
1	225.78	227.10	-1.32
2	243.17	244.60	-1.43
3	235.09	236.40	-1.31

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Electrical Multimeter	Clamp on calibrator	NA
Manufacturer:	Fluke	Greyline Instruments Inc.	NA
Model No:	179	PDFM 5.1	NA

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result:	<input checked="" type="checkbox"/> Passed	<input type="checkbox"/> Failed	<input type="checkbox"/> Not Verified
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Overall Remarks: Measurement Works within Specification.
Verification Test Passed.

Service Technician : Sanket Trada
Printed Date: May 14, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4


**VERIFICATION REPORT- MULTIRANGER 200
OPEN CHANNEL FLOW MEASUREMENT**

Customer Name:	City of Orillia	Site/Plant Address:	40 kitchener street, Orillia, ON L3V6Z9
Plant Name:	Orillia WWTP		
Device Information		Service Information	
Make:	Milltronics	Date:	May 13, 2025
Model:	Multiranger 200	Report No:	CO1626-2505-05
Order Code:	N/A	Job No:	CO1626-2505
Serial No.:	071901107VV		
Tag:	FIT01	Flow Details	
Job Location:	UV Building-Final Effluent flow	Unit:	m3/day
		Flow Range:	0 - 150000 m3/day
Inst. Reading	<u>AS FOUND</u>	<u>AS LEFT</u>	Current Output:
Point1(m)	1.283	1.285	4-20 mA
Point2(m)	1.142	1.142	4 mA Set Point
			20 mA Set Point
			150000

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Programming Parameter of Instrument-Point1					
Parameter	Discription	Value	Parameter	Discription	Value
P001	Operation	1.00000	P601	Flow Exponent	1.55
P002	Material	1.000	P602	PMD Dimension	1.000 m
P004	Transducer	112(XRS-5)	P603	Maximum Head	1.5m
P005	Units	1	P604	Maximum Flow	1000
P006	Empty	1.949m	P605	Zero Head	0.00
P007	Span	1.5m	P608	Flow rate Units	0 (ratiometric Calculation)
P620	Low Flow cutoff	0.075m	P210	4mA Setpoint	0.000m
P600	Primary Mea. Device	0	P211	20mA Setpoint	1.500m

Programming Parameter of Instrument-Point2					
Parameter	Discription	Value	Parameter	Discription	Value
P001	Operation	1.00000	P601	Flow Exponent	1.55
P002	Material	1.000	P602	PMD Dimension	1.000 m
P004	Transducer	112(XRS-5)	P603	Maximum Head	1.5m
P005	Units	1	P604	Maximum Flow	1000
P006	Empty	1.487m	P605	Zero Head	0.00
P007	Span	1.5m	P608	Flow rate Units	0 (ratiometric Calculation)
P620	Low Flow cutoff	0.075m	P210	4mA Setpoint	0.000m
P600	Primary Mea. Device	0	P211	20mA Setpoint	1.500m

Instrument Test Information and Results-Point1					
Input (%)	Calculated Flow(m3/day)	Calculated Input (mA)	Flow on Scada (m3/day)	UUT Measured Output (mA)	Deviation (m3/day)
0	0.00	4.00	0.00	4.00	0.00
25	37500.00	8.00	37500.25	8.02	-0.25
50	75000.00	12.00	74999.74	11.99	0.26
75	112500.00	16.00	112499.46	15.98	0.54
100	150000.00	20.00	150000.00	20.00	0.00
Instrument Test Information and Results-Point2					
Input (%)	Calculated Flow(m3/day)	Calculated Input (mA)	Flow on Scada (m3/day)	UUT Measured Output (mA)	Deviation (m3/day)
0	0.00	4.00	0.02	3.98	-0.02
25	37500.00	8.00	37499.74	7.99	0.26
50	75000.00	12.00	74999.55	11.98	0.45
75	112500.00	16.00	112500.29	16.01	-0.29
100	150000.00	20.00	150000.00	19.99	0.00
Echo Profile Point 1					
Information of Tools used for Verification of the Instruments					
Device Description:	Manufacturer		Model		
Electrical Multimeter	Fluke		179		
* Refer Calibration Tools Certificates submittal for more Information					
Verification Test Result:	<input checked="" type="checkbox"/> Passed		<input type="checkbox"/> Failed		<input type="checkbox"/> Not Verified
Overall Remarks:	Verification Test Passed. Program parameters Verified. Limited Verification Performed.				
Service Technician :	Sanket Trada			Stamp/Signature	
Printed Date:	May 13, 2025				
End of Report				Version: 19-12	



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT - OCM III
OPEN CHANNEL FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street,
Orillia, ON L3V6Z9

Device Information
Make: Miltronics
Model: Multiranger OCM111
Order Code: N/A
Serial No.: PBD/V8190064
Tag: N/A
Job Location: Final Effluent bypass flow

Service Information
Date: May 13, 2025
Report No: CO1626-2505-06
Job No: CO1626-2505

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	262029	262029
FLOW (l/sec)	0.0	0

Flow Details
Unit: L/SEC
Flow Range: 2489.9
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 2489.9

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Programming Parameter of Instrument					
Parameter	Description	Value	Parameter	Description	Value
F0	Access Code	2.71828	P7	Height of Max. Head	11.81099 inch
P1	Dimension Unit (inch)	1	P32	Totalizer Multiplier	1000
P3	Exponential Device	15	P42	Head by OCM III	1
P4	Cal. Method -Absolute	0	P45	Low Flow Cut-off	0
P5	Flow Unit - L/SEC	0	P46	Range at Zero Head	73 inch
P6	Max Flow rate	2489.9L/SEC	P47	Blanking Distance	24.022237 inch

Instrument Test Information and Results					
Input (%)	Calculated Flow(l/sec)	Calculated Input (mA)	Flow Measurement (l/sec)	UUT Measured Output (mA)	Deviation (l/sec)
0	0.00	4.00	0.01	4.00	-0.01
25	622.47	8.00	622.33	7.98	0.14
50	1244.95	12.00	1244.79	11.99	0.16
75	1867.42	16.00	1867.35	15.98	0.07
100	2489.90	20.00	2490.00	20.01	-0.10

Information of Tools used for Verification of the Instruments		
Device Description:	Manufacturer	Model
Electrical Multimeter	Fluke	179

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result: Passed Failed Not Verified

Overall Remarks: Verification Test Passed.Limited Verification Performed.

Service Technician : Sanket Trada
Printed Date: May 13, 2025

Stamp/Signature



3170 Ridgeway Drive,
Unit #11
Mississauga, ON L5L 5R4

VERIFICATION REPORT ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information
Make: E&H
Model: PROMAG 50 W
Serial No: DB0BB816000
Tag: FIT-261
Job Location: COO-WWTC
Asset ID:- N/A

Service Information
Date: May 13, 2025
Report No: CO1626-2505-07
Job no:- CO1626-2505

Sensor Details
Line size: 14 Inch
Mounting: Compact

Flow Details
Unit: M3/day
Flow Range: 0-33250 M3/day
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 33250

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	4360393	4360450
FLOW (m3/day)	14281.00	14332.00

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	


Instrument Test Information and Results			
Test-Point	Flow Measured on ClampOn Calibrator (M3/day)	UUT Display (M3/day)	Deviation (%)
1	14297.33	14379	0.57
2	14201.23	14265	0.45
3	14212.77	14306	0.66

Information of Tools used for Verification of the Instruments			
Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Electrical Multimeter	Clamp on calibrator	NA
Manufacturer:	Fluke	Greyline Instruments Inc.	NA
Model No:	179	PDFM 5.1	NA

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Failed** **Not Verified**

Overall Remarks: Measurement Works within Specification.

Service Technician : Sanket Trada Stamp/Signature 
Printed Date: May 13, 2025

Flowmeter Verification Certificate Transmitter

Customer

Order code

PROLINE T_MASS 65 4.2 inch

Device type

F70AC502000

Serial number

V1.01.02

Software Version Transmitter

13.05.2025

Verification date

Plant

FIT-102

Tag Name

0 - 0

K-Factor

0

Zero point

Software Version I/O-Module

09:08

Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 2.00 %
Heat Power Generation	Passed	1.0 mW
Ambient Resistance Test	Passed	1.0 Ohm
Heater Resistance Test	Passed	1.0 Ohm
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	0.5 C

FieldCheck Details

M708FE02000

Serial number

1.07.08

Software Version

05/2025

Last Calibration Date

Simubox Details

F6091802000

Serial number

1.00.00

Software Version

08/2024

Last Calibration Date

13.05.2025



.....
Date

.....
Operator's Sign

.....
Inspector's Sign

FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-102
Device type	PROLINE T_MASS 65 4.2 inch	K-Factor	0 - 0
Serial number	F70AC502000	Zero point	0
Software Version Transmitter	V1.01.02	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	09:08

Verification Flow end value (100 %): 82692.898 kg/d

Application: Gas mixture

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	4134.645 kg/d	2.00 %	-0.20 %
✓		8269.290 kg/d	2.00 %	-0.16 %
✓		41346.449 kg/d	2.00 %	-0.09 %
✓		82692.898 kg/d	2.00 %	0.06 %
✓	Heat Power Generation	10.000 mW	1.0 mW	0.0251 mW
✓		20.000 mW	1.0 mW	0.0376 mW
✓		100.000 mW	1.0 mW	0.2146 mW
✓		200.000 mW	1.0 mW	0.4063 mW
✓	Ambient Resistance Test	137.0 Ohm	1.0 Ohm	0.02 Ohm
✓		100.0 Ohm	1.0 Ohm	0.01 Ohm
✓	Heater Resistance Test	137.0 Ohm	1.0 Ohm	0.02 Ohm
✓		100.0 Ohm	1.0 Ohm	0.02 Ohm
✓	Current Output 1	4.000 mA (0%)	0.05 mA	-0.005 mA
✓		4.800 mA	0.05 mA	-0.001 mA
✓		5.600 mA	0.05 mA	0.000 mA
✓		12.000 mA	0.05 mA	-0.003 mA
✓		20.000 mA	0.05 mA	-0.009 mA
—	Pulse Output 1	---	---	---
	Test Sensor	Sensor A // Sensor H (zero power)	Limit Value	Measured value
✓	Temperature Difference Amb. - Heater	41.5 C // 41.6 C	0.5 C	0.1254 C

Legend of symbols

✓	✗	—	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-102
Device type	PROLINE T_MASS 65 4.2 inch	K-Factor	0 - 0
Serial number	F70AC502000	Zero point	0
Software Version Transmitter	V1.01.02	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	09:08

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA		
Terminal 26/27	COR. VOLUME FLOW	4-20 mA activ	0.0 Nm3/h	200.00 Nm3/h		
Pulse Output	Assign	Pulse Value	Output signal	Pulse width		
Terminal xx/xx	OFF	---	---	---		

Actual System Ident.

0.0

Flowmeter Verification Certificate Transmitter

Customer

Order code

PROLINE T_MASS 65 4.2 inch

Device type

F70AC602000

Serial number

V1.01.02

Software Version Transmitter

13.05.2025

Verification date

Plant

FIT-101

Tag Name

0 - 0

K-Factor

0

Zero point

Software Version I/O-Module

09:43

Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 2.00 %
Heat Power Generation	Passed	1.0 mW
Ambient Resistance Test	Passed	1.0 Ohm
Heater Resistance Test	Passed	1.0 Ohm
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	0.5 C

FieldCheck Details

M708FE02000

Serial number

1.07.08

Software Version

05/2025

Last Calibration Date

Simubox Details

F6091802000

Serial number

1.00.00

Software Version

08/2024

Last Calibration Date

13.05.2025



.....
Date

.....
Operator's Sign

.....
Inspector's Sign

FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-101
Device type	PROLINE T_MASS 65 4.2 inch	K-Factor	0 - 0
Serial number	F70AC602000	Zero point	0
Software Version Transmitter	V1.01.02	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	09:43

Verification Flow end value (100 %): 82740.891 kg/d

Application: Gas mixture

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	4137.044 kg/d	2.00 %	0.03 %
✓		8274.089 kg/d	2.00 %	0.11 %
✓		41370.445 kg/d	2.00 %	0.11 %
✓		82740.891 kg/d	2.00 %	0.25 %
	Heat Power Generation			
✓		10.000 mW	1.0 mW	0.0305 mW
✓		20.000 mW	1.0 mW	0.0623 mW
✓		100.000 mW	1.0 mW	0.3182 mW
✓		200.000 mW	1.0 mW	0.6504 mW
	Ambient Resistance Test			
✓		137.0 Ohm	1.0 Ohm	0.00 Ohm
✓		100.0 Ohm	1.0 Ohm	0.01 Ohm
	Heater Resistance Test			
✓		137.0 Ohm	1.0 Ohm	0.00 Ohm
✓		100.0 Ohm	1.0 Ohm	0.01 Ohm
	Current Output 1			
✓		4.000 mA (0%)	0.05 mA	-0.003 mA
✓		4.800 mA	0.05 mA	0.001 mA
✓		5.600 mA	0.05 mA	0.001 mA
✓		12.000 mA	0.05 mA	-0.003 mA
✓		20.000 mA	0.05 mA	-0.009 mA
	Pulse Output 1			
—		---	---	---
	Test Sensor	Sensor A // Sensor H (zero power)	Limit Value	Measured value
✓	Temperature Difference Amb. - Heater	22.3 C // 22.5 C	0.5 C	0.2511 C

Legend of symbols

✓	✗	—	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-101
Device type	PROLINE T_MASS 65 4.2 inch	K-Factor	0 - 0
Serial number	F70AC602000	Zero point	0
Software Version Transmitter	V1.01.02	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	09:43

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA		
Terminal 26/27	COR. VOLUME FLOW	4-20 mA activ	0.0 Nm3/h	200.00 Nm3/h		
Pulse Output	Assign	Pulse Value	Output signal	Pulse width		
Terminal xx/xx	OFF	---	---	---		

Actual System Ident.

0.0



3170 Ridgeway Drive,
Unit #11
Mississauga, ON L5L 5R4

VERIFICATION REPORT ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information
Make: E&H
Model: PROMAG 50p
Serial No: 6B026416000
Tag: FIT03
Job Location: DAF BLDF
Asset ID: N/A

Service Information
Date: May 12, 2025
Report No: CO1626-2505-10
Job no:- CO1626-2505

Sensor Details
Line size: 1" Inch
Mounting: Compact

Flow Details
Unit: L/min
Flow Range: 0-5
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 5

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (Gal)	2174470	2174471.00
FLOW (L/min)	1.29	0.00

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results					
Flow Input (%)	Calculated Flow (L/min)	Calculated O/P (mA)	UUT Display (L/min)	UUT Measured Output (mA)	Deviation (mA)
0.00	0.00	4.00	0.00	3.99	0.01
25.00	1.25	8.00	1.24	7.99	0.01
50.00	2.50	12.00	2.48	11.98	0.02
75.00	3.75	16.00	3.76	16.01	-0.01
100.00	5.00	20.00	5.00	20.00	0.00

Information of Tools used for Verification of the Instruments			
Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Electrical Multimeter	N/A	N/A
Manufacturer:	Fluke	N/A	N/A
Model No:	179	N/A	N/A

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Failed** **Not Verified**

Overall Remarks: Measurement Works within Specification. Limited Verification performed.

Service Technician : Sanket Trada Stamp/Signature
Printed Date: May 12, 2025



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8310
Part No.: 8344808
Serial No.: ARML 0348
Tag No: Channel 02
Job Location: Primary Building Main Area

Service Information
Date: May 12, 2025
Report No: CO1626-2505-11
Job No: CO1626-2505

Sensor Details
Gas Type: Methane(CH4)
Sensor Serial No.: N/A
Sensor Part No.: N/A
Sensor Range: 0-100% LEL

Gas Details
Unit: %(LEL)
Gas Range: 0-50% LEL
Current Output: 4-20 mA
4- 20mA Set Point: 100%LEL
Alarm 1 Set Point: 10%LEL
Alarm 2 Set Point: 20%LEL

Inst. Reading	AS FOUND	AS LEFT
GAS (%LEL)	0	0

Maintenance Checklist				Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK		
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK		
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK		
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK		

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (%LEL)	UUT Display (%LEL)	Deviation (%LEL)	Test Result
Zero	0	0	0	Passed
Span	50	53	3	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	CH4(50% LEL)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada
Printed Date: May 12, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8100
Part No.: 8344404
Serial No.: ARND 1512
Tag No: Channel 01
Job Location: Primary Building Main Area

Service Information
Date: May 12, 2025
Report No: CO1626-2505-12
Job No: CO1626-2505

Sensor Details
Gas Type: Hydrogen Sulfide(H2S)
Sensor Serial No.: ARNE 0059
Sensor Part No : 6810435
Sensor Range: 0- 100 PPM

Gas Details
Unit: PPM
Gas Range: 0-25 PPM
Current Output: 4-20 mA
4- 20mA Set Point: 0-50 PPM
Alarm 1 Set Point: 5 PPM
Alarm 2 Set Point: 10 PPM

Inst. Reading	AS FOUND	AS LEFT
GAS (PPM)	0.0	0.0

Maintenance Checklist		Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	


Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (PPM)	UUT Display (PPM)	Deviation (PPM)	Test Result
Zero	0.0	0.0	0.0	Passed
Span	25.0	28.7	3.7	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	H2S(25PPM)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada Stamp/Signature 

Printed Date: May 12, 2025



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8310
Part No.: 8344808
Serial No.: ARMM 0596
Tag No: Channel 04
Job Location: Primary Building Tunnel Area

Service Information
Date: May 12, 2025
Report No: CO1626-2505-13
Job No: CO1626-2505

Sensor Details
Gas Type: Methane(CH4)
Sensor Serial No.: N/A
Sensor Part No.: N/A
Sensor Range: 0-100% LEL

Gas Details
Unit: %(LEL)
Gas Range: 0-50% LEL
Current Output: 4-20 mA
4- 20mA Set Point: 100%LEL
Alarm 1 Set Point: 10%LEL
Alarm 2 Set Point: 20%LEL

Inst. Reading	AS FOUND	AS LEFT
GAS (%LEL)	0.00	0

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (%LEL)	UUT Display (%LEL)	Deviation (%LEL)	Test Result
Zero	0	0	0	Passed
Span	50	48.3	-2	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	CH4(50% LEL)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada
Printed Date: May 12, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8100
Part No.: 8344404
Serial No.: ARND1530
Tag No: Channel 03
Job Location: Primary Building Main Area

Service Information
Date: May 12, 2025
Report No: CO1626-2505-14
Job No: CO1626-2505

Sensor Details
Gas Type: Hydrogen Sulfide(H2S)
Sensor Serial No.: ARNC 0595
Sensor Part No : 6810435
Sensor Range: 0-100 PPM

Gas Details
Unit: PPM
Gas Range: 0-25 PPM
Current Output: 4-20 mA
4- 20mA Set Point: 0-50 PPM
Alarm 1 Set Point: 5 PPM
Alarm 2 Set Point: 10 PPM

Inst. Reading	AS FOUND	AS LEFT
GAS (PPM)	0.0	0.0

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (PPM)	UUT Display (PPM)	Deviation (PPM)	Test Result
Zero	0.0	0.0	0.0	Passed
Span	25.0	25.7	0.7	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	H2S(25PPM)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada
Printed Date: May 12, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8310
Part No.: 8344808
Serial No.: ARMM 0602
Tag No: Channel 01
Job Location: Digester Bldg Condensate Room

Service Information
Date: May 12, 2025
Report No: CO1626-2505-15
Job No: CO1626-2505

Sensor Details
Gas Type: Methane(CH4)
Sensor Serial No.: N/A
Sensor Part No.: N/A
Sensor Range: 0-100% LEL

Gas Details
Unit: %(LEL)
Gas Range: 0-50% LEL
Current Output: 4-20 mA
4- 20mA Set Point: 100%LEL
Alarm 1 Set Point: 10%LEL
Alarm 2 Set Point: 20%LEL

Inst. Reading	AS FOUND	AS LEFT
GAS (%LEL)	0	0

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (%LEL)	UUT Display (%LEL)	Deviation (%LEL)	Test Result
Zero	0	0	0	Passed
Span	50	49	-1	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	CH4(50%LEL)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada

Stamp/Signature

Printed Date: May 12, 2025



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8100
Part No.: 8344404
Serial No.: ARND 1538
Tag No: Channel 03
Job Location: Digester Bldg Condensate Room

Service Information
Date: May 12, 2025
Report No: CO1626-2505-16
Job No: CO1626-2505

Sensor Details
Gas Type: Hydrogen Sulfide(H2S)
Sensor Serial No.: ARNC 0563
Sensor Part No : 6810435
Sensor Range: 0-100 PPM

Gas Details
Unit: PPM
Gas Range: 0-25 PPM
Current Output: 4-20 mA
4- 20mA Set Point: 0-50 PPM
Alarm 1 Set Point: 5 PPM
Alarm 2 Set Point: 10 PPM

Inst. Reading	AS FOUND	AS LEFT
GAS (PPM)	0.0	0.0

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (PPM)	UUT Display (PPM)	Deviation (PPM)	Test Result
Zero	0.0	0.0	0.0	Passed
Span	25.0	26.2	1.2	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	H2S(25PPM)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada
Printed Date: May 12, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT GAS DETECTOR/ANALYSER

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener Street, Orillia,
ON, L3V 6Z9

Device Information
Make: Draeger
Model: Polytron 8100
Part No.: 8344404
Serial No.: ARND 1520
Tag No: Channel 02
Job Location: Digester Bldg Condensate Room

Service Information
Date: May 12, 2025
Report No: CO1626-2505-17
Job No: CO1626-2505

Sensor Details
Gas Type: O2
Sensor Part No: 6809630
Sensor Serial No.: ARND 0773
Sensor Range: 0-25% (VOL)

Gas Details
Unit: % (VOL)
Gas Range: 0 - 21.00% (VOL)
Current Output: 4-20 mA
4- 20mA Set Point: 0 - 25.00% (VOL)
Alarm 1 Set Point: 19.50% (VOL)
Alarm 2 Set Point: 19.00% (VOL)

Inst. Reading	AS FOUND	AS LEFT
GAS (%VOL)	20.9	20.9

Maintenance Checklist	Remarks
Visual Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Electrical Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Sensor Installation: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Transmitter Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	

Instrument Test Information and Results				
Calibration-Point	Calibrated Gas Value (%VOL)	UUT Display (%VOL)	Deviation (%VOL)	Test Result
Zero	0.0	0.0	0.0	Passed
Span	21.0	20.9	-0.1	Passed

Information of Gas used for Verification of the Instruments		
Details	Tool/Kit 1	Tool/Kit 2
Device Description:	Zero Gas	Span Gas
Gas Type:	Zero Gas	O2 (21% VOL)
Manufacturer:	Drager	Drager

* Refer Calibration Tools Certificates submittal for more Information

Overall Test Result: **Passed** **Fail** **Not Verified**

Overall Remarks: Measurement Works within Specification.
Calibration Test Passed.

Service Technician : Sanket Trada
Printed Date: May 12, 2025

Stamp/Signature



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT - KHROME ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information
Make: Khrono
Model: Enviromag 2100
Order Code: NA
Serial No.: C17501447
Tag: NA
Job Location: Filter 2

Service Information
Date: May 13, 2025
Report No: CO1626-2505-21
Job No: CO1626-2505

Sensor Details
Line size: DN150mm / 6 Inch
GK: NA
GKL: 6.2426
Mounting: Compact

Flow Details
Unit: gal/min
Flow Range: 0-1260
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 1260

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	NA	NA
FLOW (gal/min)	0	0

Maintenance Checklist			Remarks
Visual Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Electrical Inspection:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Sensor Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	
Transmitter Installation:	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NOT OK	

Instrument Test Information and Results					
Set-Point as Per Calibration KIT	Calculated Flow (gal/min)	Calculated O/P (mA)	UUT Display (gal/min)	UUT Measured Output (mA)	Deviation (gal/min)
0	0.00	4.00	0.00	4.00	0.00
A	133.24	5.69	133.35	5.70	0.11
B	266.48	7.38	266.67	7.41	0.19
C	532.96	10.77	533.08	10.79	0.12

Information of Tools used for Verification of the Instruments			
Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrono	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result: **Passed** **Failed** **Not Verified**

Overall Remarks: Measurement Works within Specification.

Service Technician : Sanket Trada
Printed Date: May 13, 2025

Stamp/Signature 



IndusControl Inc.
3170 Ridgeway Drive, Unit 11
Mississauga, ON, L5L 5R4

VERIFICATION REPORT - KHRONE ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name: City of Orillia
Plant Name: Orillia WWTP

Site/Plant Address: 40 Kitchener street,
Orillia, ON L3V6Z9

Device Information
Make: Khrone
Model: Enviromag 2100
Order Code: NA
Serial No.: C17500974
Tag: NA
Job Location: Filter 1

Service Information
Date: May 13, 2025
Report No: CO1626-2505-22
Job No: CO1626-2505

Sensor Details
Line size: DN150mm / 6 Inch
GK: NA
GKL: 6.2891
Mounting: Compact

Flow Details
Unit: gal/min
Flow Range: 0-1260
Current Output: 4-20 mA
4 mA Set Point: 0
20 mA Set Point: 1260

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	NA	NA
FLOW (gal/min)	0	62

Maintenance Checklist	Remarks
Visual Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Electrical Inspection: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Sensor Installation: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	
Transmitter Installation: <input checked="" type="checkbox"/> OK <input type="checkbox"/> NOT OK	

Instrument Test Information and Results					
Set-Point as Per Calibration KIT	Calculated Flow (gal/min)	Calculated O/P (mA)	UUT Display (gal/min)	UUT Measured Output (mA)	Deviation (gal/min)
0	0.00	4.00	0.00	4.00	0.00
A	134.23	5.70	133.97	5.67	-0.26
B	268.46	7.41	268.14	7.38	-0.32
C	536.93	10.82	536.01	10.79	-0.92

Information of Tools used for Verification of the Instruments			
Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrone	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result: **Passed** **Failed** **Not Verified**

Overall Remarks: Measurement Works within Specification.

Service Technician : Sanket Trada
Printed Date: May 13, 2025

Stamp/Signature 

Flowmeter Verification Certificate Transmitter

Customer

Plant

FIT-90

Order code

PROLINE T_MASS 65 10.0 inch

Tag Name

0 - 0

Device type

N10D6F02000

K-Factor

0

Serial number

V1.01.04

Zero point

Software Version Transmitter

13.05.2025

Software Version I/O-Module

10:44

Verification date

Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 2.00 %
Heat Power Generation	Passed	1.0 mW
Ambient Resistance Test	Passed	1.0 Ohm
Heater Resistance Test	Passed	1.0 Ohm
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	0.5 C

FieldCheck Details

M708FE02000

Serial number

1.07.08

Software Version

05/2025

Last Calibration Date

Simubox Details

F6091802000

Serial number

1.00.00

Software Version

08/2024

Last Calibration Date

13.05.2025

Date

Operator's Sign

Inspector's Sign

FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-90
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6F02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:44

Verification Flow end value (100 %): 19533.102 kg/h

Application: Air

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	976.655 kg/h	2.00 %	0.33 %
✓		1953.310 kg/h	2.00 %	0.41 %
✓		9766.551 kg/h	2.00 %	0.57 %
✓		19533.102 kg/h	2.00 %	0.69 %
✓	Heat Power Generation	10.000 mW	1.0 mW	0.0297 mW
✓		20.000 mW	1.0 mW	0.0494 mW
✓		100.000 mW	1.0 mW	0.2685 mW
✓		200.000 mW	1.0 mW	0.5463 mW
✓	Ambient Resistance Test	137.0 Ohm	1.0 Ohm	0.04 Ohm
✓		100.0 Ohm	1.0 Ohm	0.03 Ohm
✓	Heater Resistance Test	137.0 Ohm	1.0 Ohm	0.04 Ohm
✓		100.0 Ohm	1.0 Ohm	0.04 Ohm
✓	Current Output 1	4.000 mA (0%)	0.05 mA	-0.004 mA
✓		4.800 mA	0.05 mA	0.000 mA
✓		5.600 mA	0.05 mA	0.001 mA
✓		12.000 mA	0.05 mA	-0.003 mA
✓		20.000 mA	0.05 mA	-0.011 mA
—	Pulse Output 1	---	---	---
	Test Sensor	Sensor A // Sensor H (zero power)	Limit Value	Measured value
✓	Temperature Difference Amb. - Heater	70.2 C // 70.3 C	0.5 C	0.0493 C

Legend of symbols

✓	✗	—	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-90
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6F02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:44

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA		
Terminal 26/27	COR. VOLUME FLOW	4-20 mA activ	0.0 Nm3/h	8000.00 Nm3/h		
Pulse Output	Assign	Pulse Value	Output signal	Pulse width		
Terminal xx/xx	OFF	---	---	---		

Actual System Ident.

0.0

Flowmeter Verification Certificate Transmitter

Customer

Order code

PROLINE T_MASS 65 10.0 inch

Device type

N10D6C02000

Serial number

V1.01.04

Software Version Transmitter

13.05.2025

Verification date

Plant

FIT-292

Tag Name

0 - 0

K-Factor

0

Zero point

Software Version I/O-Module

10:30

Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 2.00 %
Heat Power Generation	Passed	1.0 mW
Ambient Resistance Test	Passed	1.0 Ohm
Heater Resistance Test	Passed	1.0 Ohm
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	0.5 C

FieldCheck Details

M708FE02000

Serial number

1.07.08

Software Version

05/2025

Last Calibration Date

Simubox Details

F6091802000

Serial number

1.00.00

Software Version

08/2024

Last Calibration Date

13.05.2025

Date

Operator's Sign

Inspector's Sign

FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-292
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6C02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:30

Verification Flow end value (100 %): 19530.336 kg/h

Application: Air

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	976.517 kg/h	2.00 %	0.12 %
✓		1953.034 kg/h	2.00 %	0.25 %
✓		9765.168 kg/h	2.00 %	0.33 %
✓		19530.336 kg/h	2.00 %	0.44 %
	Heat Power Generation			
✓		10.000 mW	1.0 mW	0.0178 mW
✓		20.000 mW	1.0 mW	0.0378 mW
✓		100.000 mW	1.0 mW	0.1959 mW
✓		200.000 mW	1.0 mW	0.3897 mW
	Ambient Resistance Test			
✓		137.0 Ohm	1.0 Ohm	0.07 Ohm
✓		100.0 Ohm	1.0 Ohm	0.03 Ohm
	Heater Resistance Test			
✓		137.0 Ohm	1.0 Ohm	0.06 Ohm
✓		100.0 Ohm	1.0 Ohm	0.03 Ohm
	Current Output 1			
✓		4.000 mA (0%)	0.05 mA	-0.003 mA
✓		4.800 mA	0.05 mA	0.002 mA
✓		5.600 mA	0.05 mA	0.002 mA
✓		12.000 mA	0.05 mA	0.000 mA
✓		20.000 mA	0.05 mA	-0.006 mA
	Pulse Output 1			
—		---	---	---
	Test Sensor	Sensor A // Sensor H (zero power)	Limit Value	Measured value
✓	Temperature Difference Amb. - Heater	72.4 C // 72.5 C	0.5 C	0.0453 C

Legend of symbols

✓	✗	—	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-292
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6C02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:30

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA		
Terminal 26/27	COR. VOLUME FLOW	4-20 mA activ	0.0 Nm3/h	8000.00 Nm3/h		
Pulse Output	Assign	Pulse Value	Output signal	Pulse width		
Terminal xx/xx	OFF	---	---	---		

Actual System Ident.

0.0

Flowmeter Verification Certificate Transmitter

Customer

Order code

PROLINE T_MASS 65 10.0 inch

Device type

N10D6E02000

Serial number

V1.01.04

Software Version Transmitter

13.05.2025

Verification date

Plant

FIT-293

Tag Name

0 - 0

K-Factor

0

Zero point

Software Version I/O-Module

10:10

Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 2.00 %
Heat Power Generation	Passed	1.0 mW
Ambient Resistance Test	Passed	1.0 Ohm
Heater Resistance Test	Passed	1.0 Ohm
Current Output 1	Passed	0.05 mA
Pulse Output 1	Not tested	0 P
Test Sensor	Passed	0.5 C

FieldCheck Details

M708FE02000

Serial number

1.07.08

Software Version

05/2025

Last Calibration Date

Simubox Details

F6091802000

Serial number

1.00.00

Software Version

08/2024

Last Calibration Date

13.05.2025



Date

Operator's Sign

Inspector's Sign

FieldCheck - Result Tab Transmitter

Customer		Plant	
Order code		Tag Name	FIT-293
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6E02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:10

Verification Flow end value (100 %): 19512.342 kg/h

Application: Air

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	975.617 kg/h	2.00 %	-0.26 %
✓		1951.234 kg/h	2.00 %	-0.15 %
✓		9756.171 kg/h	2.00 %	-0.11 %
✓		19512.342 kg/h	2.00 %	-0.03 %
✓	Heat Power Generation	10.000 mW	1.0 mW	0.0287 mW
✓		20.000 mW	1.0 mW	0.0531 mW
✓		100.000 mW	1.0 mW	0.2674 mW
✓		200.000 mW	1.0 mW	0.4948 mW
✓	Ambient Resistance Test	137.0 Ohm	1.0 Ohm	0.05 Ohm
✓		100.0 Ohm	1.0 Ohm	0.02 Ohm
✓	Heater Resistance Test	137.0 Ohm	1.0 Ohm	0.04 Ohm
✓		100.0 Ohm	1.0 Ohm	0.02 Ohm
✓	Current Output 1	4.000 mA (0%)	0.05 mA	-0.003 mA
✓		4.800 mA	0.05 mA	0.001 mA
✓		5.600 mA	0.05 mA	0.001 mA
✓		12.000 mA	0.05 mA	-0.001 mA
✓		20.000 mA	0.05 mA	-0.009 mA
—	Pulse Output 1	---	---	---
	Test Sensor	Sensor A // Sensor H (zero power)	Limit Value	Measured value
✓	Temperature Difference Amb. - Heater	70.2 C // 70.2 C	0.5 C	0.0099 C

Legend of symbols

✓	✗	—	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer		Plant	
Order code		Tag Name	FIT-293
Device type	PROLINE T_MASS 65 10.0 inch	K-Factor	0 - 0
Serial number	N10D6E02000	Zero point	0
Software Version Transmitter	V1.01.04	Software Version I/O-Module	
Verification date	13.05.2025	Verification time	10:10

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA		
Terminal 26/27	COR. VOLUME FLOW	4-20 mA activ	0.0 Nm3/h	8000.00 Nm3/h		
Pulse Output	Assign	Pulse Value	Output signal	Pulse width		
Terminal xx/xx	OFF	---	---	---		

Actual System Ident.

0.0