March 28, 2024



Ministry of the Environment, Conservation and Parks 3<sup>rd</sup> floor, 101 17<sup>th</sup> Street East Owen Sound, Ontario N4K 0A5

#### RE: 2023 Wiarton Wastewater Treatment Plant Annual Sewage Performance Report (ECA #6045-ARDJS7) – Town of South Bruce Peninsula

Please see attached for the 2023 Annual Sewage Performance Report prepared by the Ontario Clean Water Agency on behalf of the Town of South Bruce Peninsula for the:

• Wiarton Wastewater Treatment Plant

This report was completed in accordance with the requirements set out in ECA 6045-ARDJS7, issued November 23, 2017, *Condition 11(4)*. Your receipt of this report by or before March 31, satisfies the regulatory requirements:

• ECA #6045-ARDJS7 that "The Owner shall prepare performance reports on a calendar year basis and submit to the Water Supervisor by March 31 of the calendar year following the period being reported upon."

Should you require further clarification on the information found within the Annual Sewage Performance Report, please feel free to contact me.

Sincerely,

Leo-Paul Frigault Senior Operations Manager OCWA, Georgian Highlands Region



## WIARTON WASTEWATER TREATMENT PLANT

### **ANNUAL PERFORMANCE REPORT**

For the period of JANUARY 1, 2023 TO DECEMBER 31, 2023

Prepared by the Ontario Clean Water Agency For The Corporation of the Town of South Bruce Peninsula

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#### 1. System Description

The Wiarton Wastewater Treatment System is owned by the Corporation of the Town of South Bruce Peninsula and operated on behalf of the Owner by the Ontario Clean Water Agency (OCWA) for the collection, transmission, treatment of sanitary sewage and disposal of effluent to Colpoy's Bay at a rated capacity of 4,400 m<sup>3</sup>/day. The Wiarton WWTP began operating in its present configuration in 2016. The facility includes a three (3)-cell Moving Bed Bioreactor System (MBBR), a three (3)-cell (6ha.) waste stabilization lagoon system that is aerated and operated in series configuration, a Dynasand Filtration System and a UV disinfection System.

The collection system serves the former Town of Wiarton. All raw sewage, including waste from the Wiarton Water Filtration Plant sewage pump station is collected at Sewage Pump Station no. 1 (SPS no.1) located at the intersection of George and Taylor Street. SPS no.1 is equipped with two (2) 60 hp 1775 rpm sewage pumps located in a dry well each with a rated capacity of 103.0 L/s at a TDH of 29.0 m (one duty, one standby) and a combined rated capacity of 130 L/s at a TDH of 39.0 m. The dry well is equipped with a forcemain air relief and vacuum relief valve. The sewage is then pumped to Sewage Pump Station no.2 (SPS no.2) located at the intersection of Taylor and Elm Street. SPS no.2 is equipped with three (3) 90 hp sewage pumps located in a wet well each with a rated capacity of 116 L/s at a TDH of 30.5 m (one (1) duty, two (2) standby), and two pumps in parallel having a rated capacity of 164.81 L/sec at a TDH of 36.68m (two (2) duty, one (1) standby). From there, the raw sewage is pumped to a three (3)-cell MBBR System and then flows to a three (3)-cell waste stabilization lagoon system which provides effluent polishing. Coagulant is injected at the MBBR effluent to provide precipitation of phosphorous in the lagoons. The discharge from lagoon cell #3 is continuous.

The Septage Receiving Station has controlled access and a magnetic flow meter to record volumes of septage being received. The Septage Receiving Station discharges to the MBBR.

Sodium Hypochlorite solution dosing is performed (before filtration and UV disinfection) for seasonal chlorination of lagoon effluent for control of algae growth between May and September of each year.

Disinfection that utilizes the UV disinfection system is only required from May 15 to September 15 but is currently being operated year round.

Discharge from the lagoon filter building is directed to Colpoy Bay through a 300 mm discharge pipe on Mary Street and Isaac Street (original). A 200mm backup effluent discharge pipe is located on Taylor Street. Both pipes intersect at the discharge pipe located at George and Tyson Streets.

An overview of the Wiarton Wastewater Treatment System can be found in Table 1 and a summary of the monitoring program can be found in Table 2.

Facility Name	Wiarton Wastewater Treatment Plant		
Facility Type	MBBR 3-cell, Aerated Lagoon3-cell, Sand Filtration, UV		
	disinfection with pumping stations (3)		
Plant Classification	II WWT and II WWC		
Works Number	110000819		
Rated Capacity	4,400 m³/day		
Number of Households	1,100		

Table 1.	Wiarton Wastewate	<sup>r</sup> Treatment System Overview
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2023 Annual Performance Report

Town of South Bruce Peninsula: Wiarton Wastewater Treatment Plant ECA 6045-ARDJS7

Receiving Water	Colpoy's Bay (Georgian Bay)
Environmental Compliance Approval	ECA 6045-ARDJS7 Issued November 23, 2017
Certificate of Approval	8-1028-99-006 (Air)

#### Table 2. Monitoring Program for Wiarton WWTP

Source	Parameter	Frequency	Method	
Influent	Flow (m <sup>3</sup> )	Daily	Flow Meter	
innuent	BOD₅, TSS, TP, TKN	Bi-Weekly	External Analysis	
	Flow (m <sup>3</sup> )	Daily	Flow Meter	
	CBOD₅, TSS, TKN, Total Ammonia Nitrogen (TAN), Total Phosphorus	Bi-Weekly	External Analysis	
	E. Coli	Bi-Weekly	External Analysis	
Effluent	pH, Temperature	Bi-Weekly	In-House & External Analysis	
	Temperature	Bi-Weekly	In-House & External Analysis	
	Un-ionized Ammonia (WSER)	Quarterly	External Analysis	
	Flow (m <sup>3</sup> )	Daily	Flow Meter	
Septage	BOD5, Total Suspended Solids, Total Phosphorous, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen (TAN), Chemical Oxygen Demand Organics: Acetone, Benzene, Ethylbenzene, Isopropyl alcohol, Methyl alcohol, Methylene Chloride, Methyl ethyl, ketone, Toluene, Xylene	Monthly	External Analysis	
	Metals: Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Tin, Zinc	Quarterly	External Analysis	
MBBR	DO, pH, Temperature, Ammonia <sup>2a</sup>	Daily	Online analyzers	
IVIDDK	BOD, TSS, Alkalinity, Total Phosphorous <sup>2a</sup>	Bi-Weekly	External Analysis	

<sup>2a</sup>Not required by ECA 6045-ARDJS7

#### 2. Monitoring Data

ECA 6045-ARDJS7, Section 11.4 requires

- (a). a summary and interpretation of all Influent and Imported Sewage monitoring data, including sewage characteristics, flow rates and a comparison to the values used in the design of the Works;
- (b). a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;

#### 2.1 Sampling Frequency

Both raw sewage and effluent are sampled on a regular basis. The sampling types and frequencies are summarized in Tables 3, 4 and 5. The sampling frequencies either meet or exceed the requirements set out in ECA 6045-ARDJS7.

**Table 3.** Raw Sewage Monitoring – Sampling Frequencies as Required by Schedule D of ECA 6045-ARDJS7

Parameter	Sample Type	Minimum Frequency
BOD <sub>5</sub>	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorous	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly

**Table 4.** Effluent Sampling Monitoring – Sampling Frequencies as Required by Schedule D of ECA 6045-ARDJS7

Parameters	Sample Type	Minimum Frequency
CBOD₅	8-hr Composite	Bi-weekly
Total Suspended Solids	8-hr Composite	Bi-weekly
Total Phosphorous	8-hr Composite	Bi-weekly
Total Ammonia Nitrogen (TAN)	8-hr Composite	Bi-weekly
E. Coli	Grab	Bi-weekly
рН	Grab	Bi-weekly
Temperature	Grab	Bi-weekly

**Table 5.** Imported Sewage Monitoring – Sampling Frequencies as Required by Schedule D of ECA 6045-ARDJS7

Parameters	Sample	Minimum
	Туре	Frequency
BOD <sub>5</sub>	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorous	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly
Total Ammonia Nitrogen (TAN)	Grab	Monthly
Chemical Oxygen Demand	Grab	Monthly
Organics: Acetone, Benzene, Ethylbenzene, Isopropyl alcohol, Methyl	Grab	Monthly
alcohol, Methylene chloride, Methyl ethyl, ketone, Toluene, Xylene		
Metals: Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt,	Grab	Quarterly
Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium,		
Selenium, Silver, Sodium, Tin, Zinc		

#### 2023 Annual Performance Report

Town of South Bruce Peninsula: Wiarton Wastewater Treatment Plant ECA 6045-ARDJS7

#### 2.2 Effluent Limits

The effluent limits that are to be met as per ECA 6045-ARDJS7 for the Wiarton Sewage Treatment Lagoon are found in Table 6.

Effluent Parameter	Monthly Average Concentration (mg/L) <sup>6a</sup>	Monthly Average Waste Loading (kg/day)			
CBOD <sub>5</sub>	15	66			
Total Suspended Solids	15	66			
Total Phosphorous as P	0.3	1.32			
Total Ammonia Nitrogen (May 1 to October 31)	3	13.2			
Total Ammonia Nitrogen (November 1 to April 30)	6	26.4			
рН	Maintained between 6.0 to 9.5, inclusive, at all times				
E. Coli	Not to exceed 200 cfu/100 mL geometric mean density from May 15 to September 15				

 Table 6. Effluent Limits as per Schedule C of ECA 6045-ARDJS7.

<sup>6a</sup>Under ECA 6045-ARDJS7, "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged over the days deemed to be represented by each sample.

#### 2.3 Comparison of Data to Limits/Design Values

Analytical and monitoring data for the Wiarton Wastewater Treatment System is stored in OCWA's WISKI7 data management system. Annual and monthly averages for flows, CBOD, Suspended Solids, Total Phosphorous as P, Nitrogen-series and E.coli can be found in Appendix A. Comparisons of analytical data from effluent samples to the effluent limits show the following removal efficiencies:

Parameter	Annual Average Concentration	Annual Average Removal Efficiency
CBOD <sub>5</sub>	2.32	n/a
Total Suspended Solids	4.78	96.1%
Total Phosphorous	0.03	98.6%

**Table 7.** 2023 Effluent Annual Average Concentrations and Removal Efficiencies

The following is a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Table 8.

		CBO	D5 <sup>8a</sup>	Total Suspended Solids <sup>8a</sup>			Total Phosphorous <sup>8a</sup>			Total Ammonia Nitrogen (TAN) <sup>8a</sup>				E. Coli <sup>8a</sup>				
2023	<b>Monthly Average</b> (mg/L)	Within Limits (15 mg/L)	Monthly Average Loading (kg/d)	Within Limits (66 kg/day)	Monthly Average (mg/L)	Within Limits (15 mg/L)	Monthly Average Loading (kg/d)	Within Limits (66 kg/day)	<b>Monthly Average</b> (mg/L)	Within Limits (0.3 mg/L)	Monthly Average Loading (kg/d)	Within Limits (1.32 kg/day)	<b>Monthly Average</b> (mg/L)	<b>Within Limits</b> (Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L)	Monthly Average Loading (kg/d)	<b>Within Limits</b> (Nov 1 to Apr 1 - 13.2 kg/day & May 1 to Oct 31 – 26.4 kg/day)	<b>Mean Geometric Density</b> (cfu/100 mL)	<b>Within Limits</b> (200 cfu/100 mL)
January	2.3	Yes	5.5	Yes	3.4	Yes	8.1	Yes	0.03	Yes	0.07	Yes	0.16	Yes	0.39	Yes	<2.0	Yes
February	2.0	Yes	3.5	Yes	5.0	Yes	8.5	Yes	0.03	Yes	0.07	Yes	0.10	Yes	0.24	Yes	<2.0	Yes
March	2.6	Yes	4.2	Yes	6.3	Yes	10.1	Yes	0.03	Yes	0.08	Yes	0.10	Yes	0.24	Yes	<2.0	Yes
April	3.4	Yes	8.4	Yes	8.2	Yes	20.2	Yes	0.03	Yes	0.08	Yes	0.20	Yes	0.49	Yes	<2.0	Yes
May	2.0	Yes	4.6	Yes	4.2	Yes	9.6	Yes	0.03	Yes	0.07	Yes	0.29	Yes	0.67	Yes	<2.0	Yes
June	2.0	Yes	2.0	Yes	5.9	Yes	5.9	Yes	0.04	Yes	0.04	Yes	0.86	Yes	0.85	Yes	<2.0	Yes
July	2.2	Yes	1.4	Yes	3.5	Yes	2.2	Yes	0.03	Yes	0.02	Yes	2.48	Yes	1.58	Yes	1.59	Yes
August	2.0	Yes	1.8	Yes	3.8	Yes	3.5	Yes	0.03	Yes	0.03	Yes	0.10	Yes	0.09	Yes	<2.0	Yes
September	2.0	Yes	1.7	Yes	4.6	Yes	3.9	Yes	0.03	Yes	0.03	Yes	0.10	Yes	0.09	Yes	1.41	Yes
October	2.0	Yes	3.3	Yes	2.4	Yes	4.0	Yes	0.03	Yes	0.05	Yes	0.14	Yes	0.23	Yes	<2.0	Yes
November	2.0	Yes	2.8	Yes	3.0	Yes	4.2	Yes	0.03	Yes	0.04	Yes	0.10	Yes	0.14	Yes	<2.0	Yes
December	2.0	Yes	2.9	Yes	5.7	Yes	8.3	Yes	0.03	Yes	0.05	Yes	0.10	Yes	0.15	Yes	<2.0	Yes

#### **Table 8.** Comparison of Wiarton Wastewater Treatment System Monitoring Data to Effluent Limits, 2023

<sup>8a</sup>Under ECA 6045-ARDJS7, "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged over the days deemed to be represented by each sample.

During the reporting period there was no reportable instance where the sewage lagoon system exceeded the effluent limits set out in the ECA.

Another measure of effluent quality is pH, as per ECA 6045-ARDJS7 the effluent pH is to remain within the range of 6.0 and 9.5 at all times. In 2023, the effluent was within the effluent limits and ranged from 7.23 to 8.65 with an annual average of 7.85. A monthly summary of pH can be found in Table 9.

	Average	Minimum	Maximum
January	7.49	7.26	Maximum           7.83           7.61           7.94           7.92           7.84           7.82           7.76           8.65           8.55
February	7.47	7.24	
March	7.65	7.36	7.94
April	7.59	7.27	7.92
May	7.73	7.57	7.84
June	7.66	7.44	7.82
July	7.46	7.23	7.76
August	8.23	7.86	8.65
September	8.18	7.84	8.55
October	8.14	7.78	8.49
November	8.10	7.86	8.28
December	8.37	8.23	8.59

Table 9. Monthly Summary of pH for the Wiarton Wastewater Treatment System, 2023

#### 2.4 Effluent Objectives

The effluent objectives as per ECA 6045-ARDJS7 for the Wiarton Wastewater Treatment Lagoon are found in Table 10.

**Table 10.** Effluent Objectives as per Schedule B of ECA 6045-ARDJS7.

Effluent Parameter	Monthly Average Concentration (mg/L) <sup>10a</sup>	Monthly Average Waste Loading (kg/day) <sup>10b</sup>
CBOD₅	10	n/a
Total Suspended Solids	10	n/a
Total Phosphorous as P	0.15	n/a
Total Ammonia Nitrogen (May 1 to October 31)	3	n/a
Total Ammonia Nitrogen (November 1 to April 30)	6	n/a

<sup>10a</sup>Under ECA 6045-ARDJS7, "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged over the days deemed to be represented by each sample.

<sup>10b</sup>ECA 6045-ARDJS7 does not contain Waste Loading Objectives, only limits, which can be found in Table 6 of this report. 2023 Annual Performance Report

Town of South Bruce Peninsula: Wiarton Wastewater Treatment Plant ECA 6045-ARDJS7

#### 2.5 Comparison of Data to Effluent Objectives

ECA 6045-ARDJS7, Section 11.4 requires:

b) a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;)

g) a summary of efforts made to achieve the design objectives;

The Owner shall make an assessment of the issues and recommendations for pro-active actions if any is required under the following situations and include in the annual report to the Water Supervisor:

• a. when any of the design objectives is not achieved more than 50% of the time in a year;

During the reporting period, the CBOD<sub>5</sub> monthly averages remained below the effluent objective of 10 mg/L, 100% of the time, producing an annual average of 2.22 mg/L and an annual average loading of 3.51 kg/d. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average CBOD<sub>5</sub> of 7.39 mg/L and an average loading of 13.30 kg/d. The addition of the MBBR process has helped decrease the annual average concentration by 70% and the average loading by 74% of CBOD<sub>5</sub>.

During the reporting period, the Total Suspended Solids monthly averages remained below the effluent objective of 10 mg/L, 100% of the time, producing an annual average of 4.67 mg/L and an annual average loading of 7.37 kg/d. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average Total Suspended Solids result of 11.89 mg/L and an average loading of 17.50 kg/d. The addition of the MBBR process has helped decrease the annual average concentration by 61% and the average loading by 58% of Total Suspended Solids.

During the reporting period, the Total Phosphorus monthly averages remained below the system objective of 0.15 mg/L, 100% of the time, producing an annual average of 0.03 mg/L and an annual average loading of 0.05 kg/day. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average Total Phosphorus result of 0.31 mg/L and an average loading of 0.36 kg/day. The addition of the MBBR process has helped decrease the annual average concentration by 90% and the average loading by 86% of Total Phosphorus.

During the reporting period, the Total Ammonia Nitrogen monthly averages remained below the system objectives of 3 mg/L and 6 mg/L, 100% of the time, producing an annual average of 0.39 mg/L and an average loading of 0.43 kg/day. During the 2015 reporting period while operating without the MBBR, the Lagoon system produced an annual average Total Ammonia Nitrogen result of 4.20 mg/L and an average of 6.56 kg/day. The MBBR process helped decrease the annual average by 91% and the average loading by 93% of Total Ammonia Nitrogen.

As per ECA 6045-ARDJS7, Section 6 (1)(b), OCWA used their best efforts to ensure that the Effluent was essentially free of floating and settleable solids, and did not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters throughout the reporting period.

All of the design objectives in the ECA were achieved 100% of the time during the reporting period. Refer to Table 11 for detailed laboratory analysis results in comparison to the effluent objectives.

	СВО	DD₅	Total Suspe	Total Suspended Solids Total Phosphorous		Total Ammonia Nitrogen (TAN)		
2023	<b>Monthly</b> Average <sup>11a</sup> (mg/L)	Within Objective (10 mg/L)	<b>Monthly</b> Average <sup>11a</sup> (mg/L)	Within Objective (10 mg/L)	<b>Monthly</b> Average <sup>11a</sup> (mg/L)	Within Objective (0.15 mg/L)	<b>Monthly</b> Average <sup>11a</sup> (mg/L)	Within Objective <sup>11b</sup>
January	2.3	Yes	3.4	Yes	0.03	Yes	0.16	Yes
February	2.0	Yes	5.0	Yes	0.03	Yes	0.10	Yes
March	2.6	Yes	6.3	Yes	0.03	Yes	0.10	Yes
April	3.4	Yes	8.2	Yes	0.03	Yes	0.20	Yes
May	2.0	Yes	4.2	Yes	0.03	Yes	0.29	Yes
June	2.0	Yes	5.9	Yes	0.04	Yes	0.86	Yes
July	2.2	Yes	3.5	Yes	0.03	Yes	2.48	Yes
August	2.0	Yes	3.8	Yes	0.03	Yes	0.10	Yes
September	2.0	Yes	4.6	Yes	0.03	Yes	0.10	Yes
October	2.0	Yes	2.4	Yes	0.03	Yes	0.14	Yes
November	2.0	Yes	3.0	Yes	0.03	Yes	0.14	Yes
December	2.0	Yes	5.7	Yes	0.03	Yes	0.15	Yes

#### Table 11. Comparison of Wiarton Wastewater Treatment System Monitoring Data to Effluent Objectives, 2023

<sup>11a</sup>Under ECA 6045-ARDJS7, "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged over the days deemed to be represented by each sample.

<sup>11b</sup>TAN Objectives are: Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L

#### 2.6 Effluent Flow Monitoring

The total effluent flow in 2023 was 556,535 m<sup>3</sup> with an annual average daily flow of 1,533 m<sup>3</sup>/day. Total effluent and annual average daily flows in 2023 were both higher in comparison to 2022 (453,418 m<sup>3</sup> and 1,246 m<sup>3</sup>/day in 2022).

#### 2.7 Influent Monitoring

ECA 6045-ARDJS7, Section 11.4. a) a summary and interpretation of all Influent and Imported Sewage monitoring data, including sewage characteristics, flow rates and a comparison to the values used in the design of the Works;

Parameter	Minimum	Average	Maximum
BOD <sub>5</sub> (mg/L)	23	120	244
TSS (mg/L)	66	136	242
TKN (mg/L)	1.6	21.7	40.1
Total Phosphorous	0.16	2.80	6.32

 Table 12: Influent Characteristics

In 2023, approximately 1,831 m<sup>3</sup> of septage was received by the Wiarton Wastewater Treatment System. This is lower than 2022 (2,467 m<sup>3</sup>) and 2021 (2,110 m<sup>3</sup>) volumes. ECA 6045-ARDJS7 requires monthly septage samples to be tested for BOD<sub>5</sub>, Total Suspended Solids, Total Phosphorous, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen (TAN), Chemical Oxygen Demand, Organics and Metals (Quarterly). Biochemical Oxygen Demand (BOD<sub>5</sub>), Total Phosphorus and Chemical Oxygen Demand are fairly stable; Total Suspended Solids, Total Kjeldahl Nitrogen (TKN) and Total Ammonia seem to vary significantly between samples. Refer to Appendix E for Septage Laboratory Results.

**Table 13:** Septage Receiving Characteristics

Parameter	Minimum	Maximum
Biochemical Oxygen Demand (BOD <sub>5</sub> ) [mg/L]	358	2,600
Total Suspended Solids [mg/L]	128	905
Chemical Oxygen Demand [mg/L]	590	3,550
Ammonia + Ammonium (N) [mg/L]	1.6	172
Total Kjeldahl Nitrogen [as N mg/L]	58.7	189
Phosphorus (total) [mg/L]	8.3	15.6
Isopropyl Alcohol [µg/L]	<5000	43,000
Methyl alcohol [µg/L]	<5000	72,000
Acetone [µg/L]	<1200	<1200
Benzene [µg/L]	<20	<20
Ethylbenzene [µg/L]	<20	<20
Methylene Chloride [ug/L]	<20	<20
Methyl ethyl ketone [µg/L]	<800	<800
Toluene [µg/L]	<20	188
Xylene (total) [µg/L]	<20	<100

o-xylene [µg/L]	<20	<100
m/p-xylene [µg/L]	<20	<100
Aluminum (mg/L)	0.01	1.24
Arsenic (mg/L)	<0.000	0.002
Barium (mg/L)	0.00	0.08
Cadmium (mg/L)	0.000	0.001
Calcium (mg/L)	8.72	130
Chromium (mg/L)	0.000	0.004
Cobalt (mg/L)	0.000	0.001
Copper (mg/L)	0.01	0.44
Iron (mg/L)	0.39	8.92
Lead (mg/L)	<0.000	0.013
Magnesium (mg/L)	3.12	34.5
Manganese (mg/L)	0.01	0.43
Mercury (mg/L)	<0.0000	0.0004
Nickel (mg/L)	0.000	0.011
Potassium (mg/L)	7.51	55.6
Selenium (mg/L)	0.000	0.001
Silver (µg/L)	<0.05	0.63
Zinc (mg/L)	0.01	2.12

#### 2.8 Additional Monitoring Parameters

The following parameters do not have effluent limits or objectives but are monitored on a regular basis (see Section 2.1 for sampling frequency) as required by ECA 6045-ARDJS7.

#### 2.8.1 Flows

The Owner shall make an assessment of the issues and recommendations for pro-active actions if any is required under the following situations and include in the annual report to the Water Supervisor:

• b. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity.

The total influent flow in 2023 was 552,819 m<sup>3</sup> with an annual average daily flow of 1,515 m<sup>3</sup>/day, which is 34.4% of the recommended rated capacity of 4,400 m<sup>3</sup>/day. Total influent flows in 2023 have increased while the average daily flow has stayed steady in comparison to 2022 (528,904 m<sup>3</sup> and 1,503 m<sup>3</sup>/day). The daily influent flow remained within the recommended rated capacity 98.1% (i.e. 358 out of 365 days) of the time during 2023.

A summary of the average and maximum daily flows (including the Septage Receiving) on a monthly basis can be found in Table 14. It should be noted that a maximum or average day flow for the month does not indicate that the rated capacity was exceeded for every day of the entire month. Daily flows which exceeded the recommended rated capacity were typically due to high precipitation. For more detailed information regarding flows, refer to Appendix A.

2023	Maximum Daily Raw Sewage Flow (m <sup>3</sup> /d)	Average Daily Raw Sewage Flow (m <sup>3</sup> /d)	Annual Average (m <sup>3</sup> /d)	Within Limits of Rated Capacity (4,400 m <sup>3</sup> /d)
January	5,165	2,129		
February	3,594	1,808		
March	5,063	1,934		
April	10,438 <sup>14a</sup>	2,488		
May	2,462	1,338		
June	1,213	900	1 5 1 5	Yes
July	1,136	874	1,515	res
August	1,466	983		
September	1,263	889		
October	4,702	1,584		
November	8,346	1,655		
December	2,114	1,618		

<sup>14a</sup>Significant rainfall event on April 5, 2023

#### 2.8.2 TKN

A parameter which is monitored on a regular basis but does not have effluent limits or objectives is TKN. The annual average of effluent TKN has increased from 2022. Values still remain lower than 2015 (0.80 mg/L in 2022, 0.78 mg/L in 2021, 0.99 mg/L in 2020, 1.01 mg/L in 2019, 0.83 mg/L in 2018, 1.16 mg/L in 2017, 3.46 mg/L in 2016, and 4.75 mg/L in 2015).

 Table 15.
 Monitoring Parameters for Wiarton Wastewater Treatment System, 2023

Parameters	Average	Minimum	Maximum
Total Kjeldahl Nitrogen (N mg/L)	1.12	0.50	4.00

#### 2.9 Success & Adequacy of the System

Based upon a review of the analytical and monitoring data in comparison to the effluent limits and objectives it can be concluded that the Wiarton Wastewater Treatment System is performing adequately and successfully. The system shows a high removal efficiency and was within effluent limits. Regular monitoring and necessary process changes will continue to be made to best optimize the system and enable the system to be within the effluent objectives for a greater period of time.

#### 3. Operating Challenges & Corrective Actions

ECA 6045-ARDJS7, Section 11.4. c) a summary of all operating issues encountered and corrective actions taken; (ECA 6045-ARDJS7)

All required bypass reporting was completed and Operations staff were able to maintain good overall performance of the sewage lagoon system. See Section 10 for more information and Appendix D for Bypass Reports.

2023 Annual Performance Report

Town of South Bruce Peninsula: Wiarton Wastewater Treatment Plant ECA 6045-ARDJS7

#### 4. Major Maintenance & Emergency Repairs

ECA 6045-ARDJS7, Section 11.4. d) requires a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;

• Replaced MBBR screen press booster pump

#### 5. Effluent Quality Assurance/Control Measures

ECA 6045-ARDJS7, Section 11.4. e) requires a summary of any effluent quality assurance or control measures undertaken;

All laboratory raw sewage and effluent samples (Section 3.1) are analyzed by SGS Canada Inc., which is an ISO 17025 accredited laboratory. Calibrations and preventative maintenance are performed on facility equipment and monitoring equipment, see Section 6 for more details. In addition to sample analysis, preventative maintenance is scheduled for key equipment in the sewage lagoon system and pumping stations on at least a monthly basis. Maintenance activities were scheduled within the work management system.

OCWA as the Operating Authority (on behalf of the Owner) has made best efforts to control the effluent quality in a manner that it remains within the Effluent Objectives in the ECA. The measures taken to support these efforts include:

- Continuous monitoring equipment
- Regular plant inspections/checks
- Laboratory (3<sup>rd</sup> party) analysis of influent, effluent and septage receiving samples
- Data review
- Process optimization and adjustments (as required)
- Scheduled/preventative maintenance
- Repairs (as necessary)

#### 6. Calibration & Maintenance

ECA 6045-ARDJS7, Section 11.4.f. requires a summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment;

All in-house monitoring equipment was calibrated as per manufacturer's recommendations. Monitoring and metering equipment was also calibrated by a third party and is done so on an annual basis. In addition to sample analysis, preventative maintenance is scheduled for all equipment at the sewage lagoon system and pumping stations on at least a monthly basis. Maintenance activities were scheduled within the work management system (WMS).

On May 31 and June 23, 2023, Indus Controls performed an annual third party instrument verification of the influent, final effluent, Septage Receiving and sewage pumping station #1 and #2 flowmeters. All flow meters passed the annual verification with percent errors of less than 5%. All records for calibrations/ verifications can be found in Appendix B. On May 26, 2023, SPD Sales Limited performed an annual third party instrument verification of the DO probes, and pH analyzers. All instrumentation passed the annual verification. All records for calibrations/verifications be found in Appendix B.

2023 Annual Performance Report

Town of South Bruce Peninsula: Wiarton Wastewater Treatment Plant ECA 6045-ARDJS7

#### 7. Sludge Generation and Handling

ECA 6045-ARDJS7, Section 11.4.h) requires a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;

Since the facility is a sewage lagoon system, accumulated sludge is stored in the lagoon cells. No sludge was disposed of in 2023 and no sludge is expected to be removed in 2024.

#### 8. Septage Receiving Works

In 2023, approximately 1,831 m<sup>3</sup> of septage was received by the Wiarton Wastewater Treatment System. The septage was received from various sources including:

- Owen Sound Septic Services
- Grey Bruce Septic Services
- Bluewater Sanitation

The total monthly volume of septage received can be found in Table 16.

Month	Total Volume of Septage Received (m <sup>3</sup> )		
January	224.61		
February	235.08		
March	214.79		
April	111.18		
May	188.55		
June	102.98		
July	157.21		
August	84.93		
September	87.26		
October	135.93		
November	105.91		
December	182.72		

#### **Table 16.** Total Volume of Septage Received in 2023

#### 9. Community Complaints

ECA 6045-ARDJS7, Section 11.4.i) a summary of any complaints received and any steps taken to address the complaints;

During 2023, six (6) community complaints for the Wiarton Wastewater Treatment System were received. The majority of complaints are due to blocked sewer laterals. A detailed summary of the community complaints and the steps taken to address the complaint can be found in Appendix C.

#### 10. By-passes, Spills, Overflows and Abnormal Discharge Events

ECA 6045-ARDJS7, Section 11.4.j) requires a summary of all Bypasses, Overflows, spills within the meaning of Part X of EPA and abnormal discharge events, and other abnormal operating conditions;

Overall during the reporting period there was zero (0) spills or abnormal discharge events, one (1) overflow event, and one (1) reportable bypass event at the Wiarton Wastewater Treatment System.

During the reporting period, one (1) bypass of final effluent (total volume of 22.63 m<sup>3</sup>) being discharged without receiving all of the required treatment was reported and one (1) overflow of raw sewage (total volume of 70 m<sup>3</sup>) was reported. All required information was recorded and the appropriate notifications were made to the Spills Action Centre, Ministry of Environment, Conservation and Parks (MECP), Ministry of Health and Long Term Care, the Town of South Bruce Peninsula and Environment Canada. Refer to Table 17 and Table 18 for a summary and Appendix D for detailed bypass and overflow reports.

ECA 6045-ARDJS7 requires that Quarterly bypass/overflow reports are to be submitted to the Water Supervisor. All 2023 quarterly reports were submitted to the Water Supervisor by the deadlines specified in the ECA and have been included in Appendix D.

Date	Duration HH:MM	Volume (m <sup>3</sup> )	Process Bypassed and Reason	Impact of Event	Mitigation
2023/06/30 05:20 to 2023/06/30 06:20	00:60	22.63	<ul><li>UV Treatment</li><li>Power bump</li></ul>	n/a	<ul> <li>Samples taken</li> <li>Shut off flow and reset UV system before restarting system.</li> <li>Reported on June 30, 2023 to SAC, MECP and GBHU</li> </ul>

Table 18. Overflow Events

Date	Duration	Volume and Receiver	Disinfection Status and Reason	Impact of Event	Mitigation: Taken and Planned
	HH:MM	(m³)			
2023/04/05 11:00 to 2023/04/05 11:15	00:15	70 Colpoy's Bay	<ul> <li>Untreated wastewater</li> <li>Heavy Rains</li> </ul>	n/a	<ul> <li>Samples taken</li> <li>Media collection</li> <li>Reported on April 5, 2023 to SAC, MECP and GBHU</li> </ul>

#### **11.** Notice of Modifications

ECA 6045-ARDJS7, Section 11.4. k.) a copy of all Notice of Modifications to Sewage Works submitted to the Water Supervisor under paragraph 1.d. of Condition 10, with a summary report on status of implementation of all modification.

An ECA application, #1000151170, was submitted for a new section of 375 mm sanitary main on Elm Street between Berford Street and Taylor Street to accommodate potential future residential development on the South West side of Town and to divert existing sanitary flow

from sections of Gould, Elm and Berford Streets, located south of Elm Street. The ministry concurred with installing the works while the ECA application was being reviewed, which allowed for the Town of South Bruce Peninsula to authorize the installation of this new section of sanitary pipe. It was tied in to the existing 300 mm sanitary pipe on Berford Street and in to the existing sanitary manhole #267 located across from SPS #2 and will incorporate this new works section into the CLI-ECA when issued.



# Appendix A

Performance Assessment Report



### Performance Assessment Report

From 1/1/2023 to 12/31/2023 11:59:59 PM

5620 WIARTON WASTEWATER TREATMEN																
	1 / 2023	2/ 2023	3/ 2023	4/ 2023	5/ 2023	6/ 2023	7/ 2023	8/ 2023	9/ 2023	10/ 2023	11/ 2023	12/ 2023	<total></total>	<avg></avg>	<max></max>	<-Criteria-:
Flows																
Raw Flow: Total - Raw Sewage m³/d	65,749.34	50,161.92	59,734.34	74,376.20	41,274.34	26,842.20	26,921.34	30,427.34	26,596.20	48,916.34	49,513.20	49,763.34	550,276.10			0.0
Raw Flow: Avg - Raw Sewage m³/d	2,120.95	1,791.50	1,926.91	2,479.21	1,331.43	894.74	868.43	981.53	886.54	1,577.95	1,650.44	1,605.27		1,507.61		4,400.0
Raw Flow: Max - Raw Sewage m³/d	5,168.14	3,584.14	5,053.14	10,427.14	2,465.14	1,201.14	1,138.14	1,466.14	1,252.14	4,691.14	8,334.14	2,095.14			10,427.14	0.0
Raw Flow: Count - Raw Sewage m³/d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			0.0
Eff. Flow: Total - Effluent m³/d	73,423.00	47,658.00	49,668.00	73,504.00	71,417.00	29,787.00	19,760.00	28,058.00	23,873.00	51,667.00	42,517.00	45,203.00	556,535.00			0.0
Eff. Flow: Avg - Effluent m³/d	2,368.48	1,702.07	1,602.19	2,450.13	2,303.77	992.90	637.42	905.10	852.61	1,666.68	1,417.23	1,458.16		1,533.15		4,400.0
Eff. Flow: Max - Effluent m³/d	4,321.00	2,342.00	2,698.00	4,533.00	14,431.00	2,847.00	2,218.00	2,200.00	2,928.00	3,610.00	2,923.00	1,862.00			14,431.00	0.0
Eff Flow: Count - Effluent m <sup>3</sup> /d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	28.00	31.00	30.00	31.00	363.00			0.0
Carbonaceous Biochemical Oxygen Demand: CB	DD															
Eff: Avg cBOD5 - Effluent mg/L	< 2.33 <	2.50	3.00 <	3.00 <	2.00 <	2.67 <	2.00 <	2.00 <	2.00 <	2.00 <	2.00 <	2.00		< 2.32 <	< li	20.0
Eff: # of samples of cBOD5 - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	28.00			0.0
Loading: cBOD5 - Effluent kg/d	< 5.526 <	4.255	4.807 <	7.350 <	4.608 <	2.648 <	1.275 <	1.810 <	1.705 <	3.333 <	2.834 <	2.916	-	< 3.56 <	. 7.35	
Biochemical Oxygen Demand: BOD5													JL			
Raw: Avg BOD5 - Raw Sewage mg/L	54.00	91.00	95.00	95.67	126.00	105.50	205.50	133.00	214.50	158.50	113.50	86.50		123.22	214.50	0.0
Raw: # of samples of BOD5 - Raw Sewage	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	27.00			0.0
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	71.67	110.50	109.00	105.00	138.00	104.00	240.50	156.00	191.00	148.00	174.00	116.50		138.68	240.50	0.0
Raw: # of samples of TSS - Raw Sewage	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	27.00			0.0
Eff: Avg TSS - Effluent mg/L	4.67	5.50	6.00	7.33	4.50	6.00	3.00	4.67	2.50 <	2.00	3.50	6.00		4.79	7.33	24.0
Eff: # of samples of TSS - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	28.00			0.0
Loading: TSS - Effluent kg/d	11.053	9.361	9.613	17.968	10.367	5.957	1.912	4.224	2.132 <	3.333	4.960	8.749		7.34	17.97	
Percent Removal: TSS - Raw Sewage %	93.49	95.02	94.50	93.02	96.74	94.23	98.75	97.01	98.69	98.65	97.99	94.85		96.08	98.75	0.0
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	1.12	2.23	2.01	1.97	3.09	3.19	5.56	3.51	4.28	3.25	2.55	1.81		2.88	5.56	0.0
Raw: # of samples of TP - Raw Sewage	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	27.00			0.0
Eff: Avg TP - Effluent mg/L	< 0.03	0.04 <	0.03 <	0.03 <	0.03	0.06 <	0.03 <	0.03 <	0.03 <	0.03 <	0.03 <	0.04	<	< 0.03 <	. 0.06	0.5
Eff: # of samples of TP - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	28.00	┼───╢		0.0
Loading: TP - Effluent kg/d	< 0.071	0.060 <	0.048 <	0.082 <	0.069	0.056 <	0.019 <	0.030 <	0.026 <	0.050 <	0.043 <	0.051		< 0.05 <	: 0.08	
Percent Removal: TP - Raw Sewage %	97.32	98.43	98.51	98.31	99.03	98.22	99.46	99.05	99.30	99.08	98.82	98.07		98.63	99.46	0.0

03/11/2024

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### Performance Assessment Report

From 1/1/2023 to 12/31/2023 11:59:59 PM

Nitrogen Series																
Raw: Avg TKN - Raw Sewage mg/L	7.43	18.45	14.00	14.00	23.05	25.30	39.75	29.37	36.50	22.35	18.95	18.60		22.31	39.75	0.00
Raw: # of samples of TKN - Raw Sewage	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	27.00			0.00
Eff: Avg TAN - Effluent mg/L	< 0.13 <	0.10 <	< 0.10 <	0.27	0.35	1.73 <	2.03 <	0.10 <	0.10	< 0.15 <	0.10 <	0.10	4	< 0.56 <	2.03	8.00
Eff: # of samples of TAN - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	4.00	3.00	2.00	2.00	2.00	2.00	30.00			0.00
Loading: TAN - Effluent kg/d	< 0.316 <	0.170 <	< 0.160 <	0.653	0.806	1.721 <	1.291 <	0.091 <	0.085	< 0.250 <	0.142 <	0.146	4	< 0.86 <	: 1.72	
Eff: Avg NO3-N - Effluent mg/L	4.82	4.57	4.33	2.43	1.03	0.62	1.73 <	0.43	0.30	1.63	2.84	3.70		2.37	4.82	0.00
Eff: # of samples of NO3-N - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	29.00			0.00
Eff: Avg NO2-N - Effluent mg/L	0.05	0.05 <	< 0.03 <	0.04 <	0.03	0.14 <	0.26 <	0.03 <	0.03	< 0.04 <	0.03 <	0.03		0.06	0.26	0.00
Eff: # of samples of NO2-N - Effluent	3.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	29.00			0.00
Disinfection																
Eff: GMD E. Coli - Effluent cfu/100mL	2.00	2.00	2.00	2.00	2.00	2.00	1.59	2.00	1.41	2.00	2.00	2.00				
								,,					,	· .		

#### 03/11/2024

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### Appendix B Calibration Reports



Customer Name:	OCWA - Wiarto	on								
Plant Name and address:	Wiarton WTP -	897 Bayview St, Wiart	on, ON. N0H 2	ТО						
Service Date:	26-May-23	Instrument Type:	AIT         W.O. Number:         230440-0001         Asset#:         NA							
Due Date:	26-May-24	Manufacturer:	Hach							
Follow-Up Required:	No	Model:	Transmitter:	SC200	Sensor:	sor: Ryton				
As Left Status:	Initial Condt	Serial #:	Transmitter:	1603C0130678	Sensor:	16034408	61			
Instrument Visual Inspec	ction:	Range:	0-14 PH		Output:	4-20 mA				
Mechanical Inspection:	ОК	Tag Infomration:	AIT-205							
Electrical Inspection:	ОК	Description:	PH Analyzer							
As found Display information:	ОК	Process/Location Des	Descrpition: MBBR - Wiarton							

Instrument Information	on:
Range:	14
Slope:	49.8 mV/PH
Offset:	NA

Input	Input %	Temp. °C	As Found	Deviation	As Left	Deviation
4.01	28.64%	20.80	4.30	7.23%	4.05	1.00%
7.00	50.00%	20.80	7.15	2.14%	7.03	0.43%
10.00	71.43%	20.80	9.45	-5.50%	9.89	-1.10%

	Comments		Test Equipment Used							
	comments		Name / Type	Seri	al No.	Due Date				
Calibrated Successfully		pH 4.00 Cat	2283449	Lot#	Lot#A2045					
		pH 7.00 Cat2	283549	Lot #	A2059	Mar-24				
			2283649	Lot #	Lot #A2341					
		Te	Technician Name		Witness Name					
			Vaibhav Patel		James Lear					
Calibration Result:	Pass	Date:	26-May-23	Date:	26-N	1ay-23				



Customer Name:	OCWA - Wiarto	on							
Plant Name and address:	Wiarton WTP -	897 Bayview St, Wiart	on, ON. N0H 2	ТО					
Service Date:	26-May-23	Instrument Type:	AIT	W.O. Number:	23044	0-0001	Asset#:	NA	
Due Date:	26-May-24	Manufacturer:	Hach						
Follow-Up Required:	No	Model:	Transmitter:	ter: HQ40d Sensor: LDO					
As Left Status:	Initial Condt	Serial #:	Transmitter:	210100038474	Sensor:	07206259	5291		
Instrument Visual Inspec	ction:	Range:	Auto	-	Output:	NA			
Mechanical Inspection:	ОК	Tag Infomration:	NA						
Electrical Inspection:	ОК	Description:	Multiparameter Portable Meter						
As found Display information:	ОК	Process/Location Des	Descrpition: MBBR						

Instrument Informa	tion:	Input		mg/L	As Found	Deviation	As Left	Deviatio
Range	Auto	Dissolved	Should be					
Temperature:	22.5 Degree C			0.00	0.40	F 700/	0 5 0	4 (70/
Offset	0	oxygen	between 8	9.00	8.48	-5.78%	8.58	-4.67%
Slope	95.40%	from Air	to10 mg/l					

	Comments		Test Equipment Used						
	Comments		Na	me / Type	Seria	al No.	Due Date		
The Dissolved Oxygen value in air dep	pends on temperature, pressure and se	urrounding	Air Calibration						
weather conditions. The ideal value s	hould be between 8-10 mg/l at room t	empera-							
ture.									
			Tech	nician Name	Witness Name				
		Vaibhav Patel		James Learn		'n			
Within Specification:	Yes		Date:	26-May-23	Date:	26-N	1ay-23		



Customer Name:	OCWA - Wiarto	on						
Plant Name and address:	Wiarton WTP -	897 Bayview St, Wiart	on, ON. NOH 2	ТО				
Service Date:	26-May-23	Instrument Type:	AIT	W.O. Number:	23044	0-0001	Asset#:	NA
Due Date:	26-May-24	Manufacturer:	Hach					
Follow-Up Required:	No	Model:	Transmitter: SC200 Sensor: LDO					
As Left Status:	Initial Condt	Serial #:	Transmitter:	1603C0130677	Sensor:	16063000	0026	
Instrument Visual Inspec	ction:	Range:	Auto		Output:	4-20 mA		
Mechanical Inspection:	ОК	Tag Infomration:	AIT-204					
Electrical Inspection:	ОК	Description:	DO Analyzer					
As found Display information:	ОК	Process/Location Des	Descrpition: MBBR					

Instrument Informati	on:	Input		mg/L	As Found	Deviation	As Left	Deviatio
Range	Auto	Dissolved	Should be					
Temperature:	27 Degree C			0.00	14.20	F7 700/	12 50	F0.000/
Offset	NA	oxygen	between 8	9.00	14.20	57.78%	13.50	50.00%
Slope	72.00%	from Air	to10 mg/l					

Comme	at a		Test Equipme	ent Used		
Comme	ents	Na	ime / Type	Seria	al No.	Due Date
The Dissolved Oxygen value in air depends or	n temperature, pressure and surrounding	Air Calibration				
weather conditions. The ideal value should be	e between 8-10 mg/l at room tempera-					
ture.						
Need to keep eye on.		Tech	nician Name	Witness Name		
		Vai	ibhav Patel		James Learr	า
Within Specification:	Yes	Date:	26-May-23	Date:	26-M	ay-23



Customer Name:	OCWA - Wiarto	A - Wiarton						
Plant Name and address:	Wiarton WTP -	on WTP - 897 Bayview St, Wiarton, ON. N0H 2T0						
Service Date:	26-May-23	Instrument Type:	AIT	W.O. Number:	23044	0-0001	Asset#:	NA
Due Date:	26-May-24	Manufacturer:	Hach					
Follow-Up Required:	No	Model:	Transmitter: SC200 Sensor: LDO					
As Left Status:	Initial Condt	Serial #:	Transmitter:         1603C0130672         Sensor:         160630000021		0021			
Instrument Visual Inspec	ction:	Range:	Auto		Output:	4-20 mA		
Mechanical Inspection:	ОК	Tag Infomration:	AIT-203					
Electrical Inspection:	ОК	Description:	DO Analyzer					
As found Display information:	ОК	Process/Location Des	crpition:	MBBR				

Instrument Info	ormation:	Input		mg/L	As Found	Deviation	As Left	Deviatio
Range	Auto	Dissolved	Should be					
Temperature:	27 Degree C			0.00	10.00	96 670/	15.00	CC C70/
Offset	NA	oxygen	between 8	9.00	16.80	86.67%	15.00	66.67%
Slope	0.52	from Air	to10 mg/l					

Commont	Comments		Test Equipment Used					
comments		Na	ime / Type	Seria	al No.	Due Date		
The Dissolved Oxygen value in air depends on te	Air Calibration							
weather conditions. The ideal value should be b								
ture.								
Need to keep eye on.		Technician Name		Witness Name		ne		
		Vai	ibhav Patel		James Leari	n		
Within Specification:	Yes	Date:	26-May-23	Date:	26-M	lay-23		

May 31, 2023						
Viral Patel		_ Stamp	/Signature	8	/	
Measurement Wo	rks within Specificati	on.				
⊡ Pa	assed		Fail	Not Ve	erified	
* Refer Cal	ibration Tools Certific	cates submittal for I	more Information	1		
GS8B		179			Ά	
Khrone		Fluke		N/A		
Calibrator		Electrical Multimeter		N/A		
				Tool	/Kit 3	
Informa	tion of Tools used fo	r Verification of the	Instruments			
107.84	12.63	108.80	12.71	-0.	96	
43.14	7.45	43.25	7.57	-0.	11	
21.57	5.73	21.70	5.79			
10.78	4.86	10.90	4.96			
0.00	4.00	0.02	4.03	-0.	02	
Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)			
	Instrument Test In	formation and Resi	ults			
□ OK	□ NOT OK					
⊡ок						
⊡ок						
□ OK	NOT OK					
enance Checklist			R	emarks		
			FLOW (L/S)		-0.71	
		_	-	7942355	7942440	
Remote		Inst. Readin	a	AS FOUND	AS LEFT	
		20 117 001	Unit	200		
				-		
ensor Details						
103372		_				
		_		-		
			<u>F</u>			
		-	-	1 D. (		
		Job No:		CO1461-2305		
		- '	Report No:			
		-				
			Serv			
wianon -PS1		_				
,	ce Hub	- Site/Plant A	ddress:	Taylor Street, Wiarton,ON		
_						
3170 Ridgeway D	rive Unit 11	ELECTRO-MAGNETIC FLOW MEASUREMENT				
t	3170 Ridgeway D Mississauga, ON, OCWA- Grey Brue Wiarton -PS1 vice Information Khrone IFC10D NA A9911651 NA PS#1 165372 Sensor Details 8 Inch 4.505 Remote tenance Checklist Ø OK Ø OK	vice Information         Khrone         IFC10D         NA         A9911651         NA         PS#1         165372         Sensor Details         8 Inch         4.505         Remote         Image: OK         OK         OK         OK         OK         NOT OK         Instrument Test Int         N         Calculated Flow         Calculated Flow         Calculated Solution         Information of Tools used for         Tool/Kit 1         Calibrator         Khrone         GS8B         * Refer Calibration Tools Certification         Measurement Works within S	3170 Ridgeway Drive Unit 11 Mississauga, ON, L5L 5R4       ELECTRO         OCWA- Grey Bruce Hub Wiarton -PS1       Site/Plant Ar         vice Information       Date: IFC10D       Date: Report No: Job No:         A9911651       NA       Job No:         PS#1       Unit: 165372       Flow Range Current Outy 4 mA Set P         8 Inch       20 mA Set I         4.505       Inst. Readin TOTALIZER FLOW (L/S)         Remote       Inst. Readin TOTALIZER FLOW (L/S)         0K       NOT OK         OK       NOT OK         Instrument Test Information and Rest (L/S)         0.00       4.00       0.02         10.78       4.86       10.90         21.57       5.73       21.70         43.14       7.45       43.25         107.84       12.63       108.80         Information of Tools used for Verification of the Tool/Kit 1       Tool/Xit 1 <t< td=""><td>Setting and the set of the set of</td><td>3170 Ridgeway Drive Unit 11 Mississauga, ON, L5L 5R4       DERIFICATION REPORT - KMR ELECTRO-MAGNETIC FLOW MEASI         OCWA- Grey Bruce Hub Wiarton -PS1       Site/Plant Address:       Taylor Street, Wiarton Pattern Magnetic Plant Address:         Vize Information       Strone       Date:       May 31, 2023         IFC10D       NA       Date:       May 31, 2023         PS#1       Date:       May 31, 2023         NA       Date:       Col 461-2305-0         NA       Date:       Col 461-2305-0         NA       Date:       Col 461-2305-0         NA       PS#1       Date:       LPS         165372       Flow Range:       0-200         Current Output:       4-20 mA       4 mA Set Point       0         8 Inch       20 mA Set Point       200       -0.11         Inst.Reading AS FOUND         7942255       FLOW (U/S)       -0.11         Instrument Test Information and Results         Instrument Test Information and Results         Instrument Test Information and Results         Instrument Test Information of Tool 0.02       4.03       -0.0         10.78       4.86       10.90       4.96       -0.0         10.78       4.86</td></t<>	Setting and the set of	3170 Ridgeway Drive Unit 11 Mississauga, ON, L5L 5R4       DERIFICATION REPORT - KMR ELECTRO-MAGNETIC FLOW MEASI         OCWA- Grey Bruce Hub Wiarton -PS1       Site/Plant Address:       Taylor Street, Wiarton Pattern Magnetic Plant Address:         Vize Information       Strone       Date:       May 31, 2023         IFC10D       NA       Date:       May 31, 2023         PS#1       Date:       May 31, 2023         NA       Date:       Col 461-2305-0         NA       Date:       Col 461-2305-0         NA       Date:       Col 461-2305-0         NA       PS#1       Date:       LPS         165372       Flow Range:       0-200         Current Output:       4-20 mA       4 mA Set Point       0         8 Inch       20 mA Set Point       200       -0.11         Inst.Reading AS FOUND         7942255       FLOW (U/S)       -0.11         Instrument Test Information and Results         Instrument Test Information and Results         Instrument Test Information and Results         Instrument Test Information of Tool 0.02       4.03       -0.0         10.78       4.86       10.90       4.96       -0.0         10.78       4.86	

	Induscontrol Inc 3170 Ridgeway D Mississauga, ON,				REPORT - <b>KHR</b> C FLOW MEASU	
Customer Name:	OCWA- Grey Brue	ce Hub		- Site/Plant Address:		ton,ON
Plant Name:	Wiarton -PS2					
	ice Information			Serv	vice Information	
Make:	Khrone		Date:		May 31, 2023	
Model:	IFC10D		_ 		CO1461-2305-21	
Order Code:	NA				CO1461-2305	
Serial No.: <del>-</del>	A9817181		-	-		
Tag:	NA			<u>+</u>	Flow Details	
Job Location:	PS#2				L/SEC	
Asset ID:	165385		Flow Range:		0-250	
Sc	peor Dotaile		Current Outp 4 mA Set Po		4-20 mA 0	
Line size:	ensor Details 10 Inch		20 mA Set F		250	
Line size: GKL:			20 MA Set F	Point	250	
	4.544 Romoto		Inot Deadler	•		
Mounting:	Remote		Inst. Reading		AS FOUND	<u>AS LEFT</u>
				(113)	2732671	2732681
			FLOW (L/S)		-0.39	-0.38
Mainte	enance Checklist			R	emarks	
Visual Inspection:	☑ OK	D NOT OK				
Electrical Inspection:	⊠ OK	NOT OK				
Sensor Installation:	⊠ок					
Transmitter Installation:	⊠ OK	NOT OK				
		Instrument Test In	formation and Resu	llts		
Set-Point as Per Calibration KIT	Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)	Devia (L/	
0	0.00	4.00	0.05	4.06	-0.0	05
A	17.00	5.09	16.63	5.01	0.3	
В	33.99	6.18	33.55	6.07	0.4	14
С	67.99	8.35	67.54	8.24	0.4	15
D	169.97	14.88	169.59	14.67	0.3	38
	· · · · · · · · · · · · · · · · · · ·	ation of Tools used fo	r Varification of the		<u> </u>	
Details		ol/Kit 1			Tool/	Kit 3
Device Description:	Calibrator		Tool/Kit 2 Electrical Multimeter		Tool/Kit 3 N/A	
Manufacturer:	Khrone		Fluke			
Model No:	GS8B		179		N/A N/A	
		ibration Tools Certific	-	nore Information		~~
Verification Test Result:	D Pa	assed		Fail	Not Ve	erified
	Measurement We	rks within Specificatio	2			
Overall Remarks:	ivieasurement wo	ns within Specificatio	лн.			
Service Technician :	Viral Patel		Stamp	/Signature	$\bigcirc$	/
					0	
Printed Date:	May 31, 2023					
	- · ·	۲nd	of Report		Version: 1	



### Verification report flowmeter

Plant operator	Induscontrol Inc
Device information	
<b>Location</b> Wiarton WWTP	<b>Device tag</b> FIT-104
<b>Module name</b> Promag L	Nominal diameter DN300 / 12"
<b>Device name</b> Promag 400	Order code 5L4C3H-2RW5/0
Serial number KC1E9919000	<b>Firmware version</b> 01.05.05
Calibration	
Calibration factor 1.3133	Zero point -4
Verification information	

vermeation mitor mation	
Operating time 2576d03h34m21s	<b>Date/time</b> 31.05.23 11:41
Verification ID 8	
Verification results	
Overall result	Passed
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:

For devices with the Heartbeat Verification enabled software option

For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

31.05.23

8

Date

Inspectors signature

Operator's signature



### Verification report flowmeter

### Serial number: KC1E9919000

#### Verification detailed results Verification ID 8

Sensor	$\checkmark$	Passed	
Coil current shot time	$\checkmark$	Passed	
Coil hold voltage	$\checkmark$	Passed	
Coil current	$\checkmark$	Passed	
Sensor electronic module	$\checkmark$	Passed	
Reference voltage	$\checkmark$	Passed	
Linearity of electrode measuring circuit	$\checkmark$	Passed	
Offset of electrode measuring circuit	$\checkmark$	Passed	
I/O module	$\checkmark$	Passed	



### Verification report flowmeter

Plant operator	Induscontrol Inc	
Device information		
<b>Location</b> Wiarton WWTP	<b>Device tag</b> FIT-105	
<b>Module name</b> Promag L	<b>Nominal diameter</b> DN200 / 8"	
<b>Device name</b> Promag 400	Order code 5L4C2H-3K91/0	
Serial number KC1E9819000	<b>Firmware version</b> 01.05.05	
Calibration		
Calibration factor 1.0880	<b>Zero point</b> 0	
Verification information		
On anoting time	Data/tima	

Operating time 2575d19h46m27s Verification ID 10	Date/time 31.05.23 11:33
Verification results	
Overall result	Passed
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:

For devices with the Heartbeat Verification enabled software option

For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

31.05.23

Date

Inspectors signature

Operator's signature



### Verification report flowmeter

### Serial number: KC1E9819000

#### Verification detailed results Verification ID 10

Sensor	$\checkmark$	Passed	
Coil current shot time	$\checkmark$	Passed	
Coil hold voltage	$\checkmark$	Passed	
Coil current	$\checkmark$	Passed	
Sensor electronic module		Passed	
Reference voltage	$\checkmark$	Passed	
Linearity of electrode measuring circuit	$\checkmark$	Passed	
Offset of electrode measuring circuit	$\checkmark$	Passed	
I/O module	$\checkmark$	Passed	



### Verification report flowmeter

Plant operator	Induscontrol Inc
Device information	
<b>Location</b>	<b>Device tag</b>
Wiarton WWTP	FIT-301
<b>Module name</b>	<b>Nominal diameter</b>
Promag L	DN100 / 4"
<b>Device name</b>	Order code
Promag 400	5L4C1H-40D6/0
Serial number	<b>Firmware version</b>
KC1EF119000	01.05.05
Calibration	
Calibration factor	<b>Zero point</b>
1.3799	-4
Verification information	

vernication information	
Operating time 2576d13h22m59s	<b>Date/time</b> 31.05.23 12:24
Verification ID 8	
Verification results	
Overall result	Passed
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:

For devices with the Heartbeat Verification enabled software option

For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

31.05.23

8

Date

Inspectors signature

Operator's signature



### Verification report flowmeter

### Serial number: KC1EF119000

#### Verification detailed results Verification ID 8

Sensor	$\checkmark$	Passed
Coil current shot time	$\checkmark$	Passed
Coil hold voltage	$\checkmark$	Passed
Coil current	$\checkmark$	Passed
Sensor electronic module	$\checkmark$	Passed
Reference voltage	$\checkmark$	Passed
Linearity of electrode measuring circuit	$\checkmark$	Passed
Offset of electrode measuring circuit	$\checkmark$	Passed
I/O module	$\checkmark$	Passed

#### Induscontrol Inc INDUS **VERIFICATION REPORT- PARSHALL FLUME** 3170 Ridgeway Drive Unit 11 CONTROL **OPEN CHANNEL FLOW MEASUREMENT** Mississauga, ON, L5L 5R4 Customer Name: OCWA-Grey Bruce Hub 897 Bayview St Site/Plant Address: Plant Name: Wairton, ON STP **Device Information** Service Information Make: Milltronics Date: June 23, 2023 Multiranger Plus CO1461-2305-25 Model: Report No: Order Code: N/A Job No: CO1461-2305 050W023466 Serial No.: NA Tag: Flow Details Final Effluent Discharge Job Location: Unit: m3/h 0-591.9 m3/h Flow Range: AS FOUND 4-20 mA AS LEFT Current Output: Inst. Reading 4 mA Set Point 0 m3/h TOTALIZER (m3) NA NA FLOW (m3/h) 25.55 25.51 20 mA Set Point 591.9 m3/h Maintenance Checklist Remarks Visual Inspection: $\checkmark$ OK NOT OK ΟK **Electrical Inspection:** $\checkmark$ NOT OK Programming Parameter of Instrument Value Parameter Discription Value Parameter Discription F0 Access Code 2.71828 P40 Parshall Flume 1.00 P41 3.00 P1 Dimension Unit (cm) 2.000 flow rate (per hr) P42 P2 Mode 5 **OCM** exponent 1.50 P3 **Empty Distance** 50.38 cm P43 Flume dimension 0 P4 P45 20 cm 20 cm Maximum head Span P5 near blanking 30 P46 Maximum flow rate 591.9 m3/hr Instrument Test Information and Results Flow on Calculated Input Panel Meter **UUT** Measured Deviation Input Calculated Flow(m3/h) (%) (mA) Display Output (mA) (%)

25	147.98	8.00	148.10	8.04	0.00
50	295.95	12.00	294.91	11.97	0.01
75	443.93	16.00	442.97	16.01	0.01
100	591.90	20.00	591.83	19.99	0.00
	Information	of Tools used for	Verification of	the Instruments	
Device Description:	Manufacture	r	Model		Serial No:
Electrical Multimeter	Fluke			As per Provided	
Verification Test Result:	☑ Passed			Fail	Not Verified
Overall Remarks:	Program parameters verified.	Measurement wor	ks as per spec	cification.	
Service Technician :	Sanket Trada			Stamp/Signature	8
Printed Date:	June 23, 2023				S.
			End of Repo	rt	Version: 19-12

4.00

0.00

0

(m3/h)

0.00

4.00

0.00



Appendix C Community Complaints



WIART	WIARTON WWTL Logbook									
Entry Time	Label	Operator	Created Time							
2023-01-11 00:00:00		00:00-23:59 ORO: James Learn (jlearn) 07:00-15:30 Duty OIC: Matthew Fraser (mfraser2)	Matthew Fraser	2023-01-11 07:43:23						
2023-01-11 09:20:00	Maintenance	Sewer backup reported at 355 Mary Street in Wiarton. M. Fraser and L. Frigault responded to site. Performed camera inspection from P/L C/O in driveway to main - lateral was all clear and in good condition, no issues on municipal side.	Matthew Fraser	2023-01-11 09:23:02						
2023-01-11 11:00:00	Facility Checks	Daily operations complete at PS 1, PS 2, Blower Building, MBBR and Filter Building. Review daily report and drain compressors. DO, PH and temps taken at lagoons 1, 2 and 3 as well as Filter building post UV effluent.	Matthew Fraser	2023-01-11 12:03:50						
2023-01-11 14:15:00	Maintenance	Placed diesel fuel order with Macdonnell fuels for treatment and collection facilities. Retrieved septage receiving monthly reports for November 2022 and December 2022.	Matthew Fraser	2023-01-11 15:15:50						



WIART	ON WV	VTL Logbook		
Entry Time	Label	Entry Text	Operator	Created Time
2023-01-24 00:00:00		00:00-23:59 ORO: James Learn (jlearn) 07:00-15:30 Duty OIC: Daniel Caesar (dcaesar) 07:00-15:30 Duty OIC: Matthew Fraser (mfraser2)	Daniel Caesar	2023-01-24 08:22:46
2023-01-24 08:00:00	Facility Checks	Daily operations complete at PS 1, PS 2, Blower Building, MBBR and Filter Building. Review daily report and drain compressors. Weekly change over of duty pumps, flow charts and duty blowers.	Daniel Caesar	2023-01-24 08:24:05
2023-01-24 13:45:00	Maintenance	Weekly bar screen cleaning complete with Cole H.	Daniel Caesar	2023-01-24 13:57:28
2023-01-24 20:50:00	Call-in, Maintenance	Received call from Operations Supervisor Trent Charlton at approximately 19:40, stating a co-worker of his who lives in Wiarton at 210 William Street was experiencing a sewer back up. I reached out to homeowner via phone call and he stated the backup occurred while doing laundry. He also said the private side lateral had been replaced in the summertime and an inspection had already been performed by a private contractor. Responded to Wiarton and gathered equipment and tools required from MBBR. Arrived at 210 William at approximately 20:30 and performed a camera inspection from C/O located on front lawn of property (outside private side C/O) to main. The line had drained at this point in time and a root ball formation was found at 19-20 feet which was impeding flow and blocking about 90-95 percent of lateral. Cleared part of the blockage by using the camera head and snake and got the lateral flowing/ draining. However, due to the size of root ball it will need to be power augered. Advised homeowner to minimize water usage for the remainder of the evening and in to the morning of Jan 25/23 and we will be by with the power auger during normal working hours to clear the rest of blockage.	Matthew Fraser	2023-01-25 10:35:59



WIART	WIARTON WWTL Logbook								
Entry Time Label Entry Text Operator Created T									
2023-04-24 00:00:00		00:00-23:59 ORO: James Learn (jlearn) 07:00-15:30 Duty OIC: Daniel Caesar (dcaesar)	Daniel Caesar	2023-04-24 07:36:49					
2023-04-24 11:30:00		Called to 569 Frank St for a sewer back up. Responded to call and tried to camera from a clean out within the house. I have deemed it to be homeowners plumbing and advised him to call a plumber.	Daniel Caesar	2023-04-24 13:28:22					
2023-04-24 12:15:00	Facility Checks	Daily operations complete at PS 1, PS 2, Blower Building, MBBR and Filter Building. Review daily report and drain compressors.	Daniel Caesar	2023-04-24 13:26:52					



WIART	ON WV	VTL Logbook		
Entry Time	Label	Entry Text	Operator	Created Time
2023-06-30 00:00:00		00:00-23:59 ORO: James Learn (jlearn) 05:20-08:00 Duty OIC: Billy Shearer (bshearer)	Billy Shearer	2023-06-30 08:13:23
2023-06-30 08:13:00		Call Dan to filter building for UV system failure. Stopped flow reset UV system reestablished flow. Collected samples verbal notification.	Billy Shearer	2023-06-30 08:14:25
2023-06-30 08:14:00		Performed system checks at PS1 PS2 MBBR blower and filter buildings. Cleaned bar screens at Pump Station one and two	Billy Shearer	2023-06-30 08:15:22
2023-06-30 10:30:00	Bypass/ Overflow	Process and Compliance technician notified Rhonda Shannon from MECP of the reported by-pass.	Leo Paul Frigault	2023-06-30 11:25:42
2023-06-30 13:20:00	Inspection	Inspect manhole situated in the back of 321 Berford and saw no signs of blockage. Pushed sewer mechanical auger from cleanout situated in the basement of 307 Berford. Pushed approximately 80 to 100 feet without resistance. Pushed auger back and forth at approximately 80 to 100 feet and dislodged blockage. Homeowner flushed the toilet and ran water taps to confirm that the pipe was clear. Pulled the auger and pushed the sewer camera. Found some root infiltration at approximately 35 feet. Pushed the camera for approximately 120 feet and service was all clear with the exception of root infiltration at 35 feet. Located the service and marked with green paint.	Leo Paul Frigault	2023-06-30 15:19:54



WIART	WIARTON WWTL Logbook								
Entry Time Label Entry Text Operator Crea									
2023-07-22 00:00:00		00:00-23:59 ORO: James Learn (jlearn) 07:00-15:30 Duty OIC: Daniel Caesar (dcaesar)	Daniel Caesar	2023-07-22 10:29:26					
2023-07-22 10:00:00	Facility Checks	Daily operations complete at PS 1, PS 2, Blower Building, MBBR and Filter Building. Review daily report and drain compressors.	Daniel Caesar	2023-07-22 10:29:47					
2023-07-22 20:45:00	Call-in, Community Complaint	Called for an odour complaint to 509 Tyson St. Lifted sewer manhole and noticed built up sludge along the sides. Still has flow. Will arrange at a later date to have that section flushed. Poured a bottle of deodorant liquid in it, for the mean time.	Daniel Caesar	2023-07-22 20:48:13					



Entry Time	Label	Entry Text	Operator	Created Time
2023-12-28 00:00:00		07:00-15:30 Duty OIC: Daniel Caesar (dcaesar) 00:00-23:59 ORO: James Learn (jlearn) 07:00-15:30 OIT: Gary Campbell (gcampbell) 07:00-15:30 Duty OIC: Cole Hutchinson (chutchinson)	Cole Hutchinson	2023-12-28 15:22:42
2023-12-28 10:05:00	Inspection	455 George St, used camera in sanitary sewer cleanout. Located blockage approx. 6' in from sidewalk.	Gary Campbell	2023-12-28 15:32:01
2023-12-28 10:50:00	Maintenance	Received Alum delivery at Filter Building	Gary Campbell	2023-12-28 15:27:14
2023-12-28 11:00:00	Facility Checks, Wiarton WWTL	Scada issues at MBBR - All values showed ???, No issues with PLC, rebooted scada, verified values - all appears ok, continue to monitor	Cole Hutchinson	2023-12-28 15:26:12
2023-12-28 13:35:00	Facility Checks	Daily operations complete at PS 1, PS 2, Blower Building, MBBR and Filter Building. Review daily report and drain compressors.	Gary Campbell	2023-12-28 15:24:32
2023-12-28 14:00:00	Facility Checks, Maintenance, PS1	Completed weekly bar screen cleaning	Cole Hutchinson	2023-12-28 15:23:10



Appendix D Effluent By-Pass Reports

From:	Karla Young
To:	<u>"Graham, Robert G. (MECP)"; "Smith. Mark (MECP)"; "Shannon, Rhonda (MECP)"</u>
Cc:	Leo-Paul Frigault; -GHRH-SPCM@ocwa.com (Mailing List): Caralynn McRae
Subject:	2023 Q1 - Bypass Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	May-11-23 10:52:00 AM

Good Morning,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

#### **Bypass Events**

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Ti	me	Duration	Volume		Duration         Volume         Treatment         Samples         Reason           Process         Collected         for		Impact of Event	Mitigation
Date	Start	End	HH:MM	( <b>m</b> <sup>3</sup> )	Bypassed	Conecteu	Bypass		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

#### **Overflow Events**

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Data	ate Time Duration Volume Rece	Receiver	Disinfection Status of	Samples Collected		Impact of Event	Mitigation: Taken and			
Date	Start	End HH:MM	(M <sup>3</sup> )	Receiver	Overflow	Conected	Overflow	Lvent	Planned	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young Process & Compliance Technician Grey-Bruce/Bruce Hubs Georgian Highlands Region **Ontario Clean Water Agency** <u>kyoung@ocwa.com</u> (519) 374 - 5782

From:	Karla Young
To:	"Graham, Robert G. (MECP)"; "Smith, Mark (MECP)"; "Shannon, Rhonda (MECP)"
Cc:	Leo-Paul Frigault; -GHRH-SPCM@ocwa.com (Mailing List); Caralynn McRae
Subject:	2023 Q2 - Bypass Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	August-10-23 12:12:00 PM
Attachments:	WiartonWWTP_EI#1-34GEM3_MBBROverflow_Final.pdf
	Report CA13177-APR23.pdf
	CofC CA13177-APR23.pdf
	WiartonWPCP 2023.06.30 1-3L9AN6 BypassofUV.pdf
	CofC CA13072-JUL23.pdf
	Report CA13072-JUL23.pdf
	CofC CA13078-JUL23.pdf
	Report CA13078-JUL23.pdf
	Report CA13202-JUL23.pdf
	CofC CA13202-JUL23.pdf

#### Good Morning,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

#### Bypass Events

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Ti	me	Duration	Volume	Treatment	Samples Collected	Reason for	Impact of Event	Mitigation
Date	Start	End	HH:MM	(m <sup>3</sup> )	Process Bypassed	Confected	Bypass	of Event	
2023/06/30	05:20	06:20	00:60	22.63	UV Treatment	Yes	Power bump	n/a	Shut off flow and reset UV system before restarting system.

#### **Overflow Events**

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;

- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

]	Date	Ti	me	Duration	Volume	Receiver	Disinfection Status of	Samples Collected		Impact of	Mitigation: Taken and
	Date	Start	End	HH:MM	(M <sup>3</sup> )	Keceiver	Overflow	Conecteu	Overflow	Event	Planned
	2023/04/05	11:00	11:15	00:15	70	Colpoy's Bay	Untreated wastewater	Yes	Heavy Rains	n/a	Media collection

Thanks,

Karla

Karla Young Process & Compliance Technician Grey-Bruce/Bruce Hubs Georgian Highlands Region **Ontario Clean Water Agency** kyoung@ocwa.com (519) 374 - 5782

### **Ontario Clean Water Agency Environmental Incident Report**

Facility ID:	5620	EIncidentRep ort
Facility Name:	Wiarton Wastewater Treatment Lagoon	
Address:	441048 Elm St	
City:	Georgian Bluffs	
Province:	Ontario	
Postal Code:	N0H 2T0	
Date of Occurrence:	04/05/2023	
Time of Occurrence:	11:00:00 AM	
Nature of the Incident ● Level 1 Contingence Incident affected: □ A	y ○ Level 2 Contingency ○ Level 3 Contingency <i>Click here To Sh</i> .ir ⊠ Water □ Land □ Nothing	ow the Definitions
What was discharged of Chlorine Sodium Hypochloride Calcium Chloride Aluminum Compou Arsenic Fluoride	Oil/Diesel/Gas	
	Other:	
If this was a discharge, sp	ill or emission	
If a liquid, approximat	ely what quantity was released?: 70000 Litres	
If a gas, approximately	what quantity was released?:	
If a solid, approximate	ly what quantity was released?: Kg	

What was the source of release?:

Due to heavy rains, the sewage overtopped the MBBR cell.

Where did the release go?:

Through the effluent channel into Colpoy's Bay

If it entered a watercourse:  $\bullet$  Yes  $\bigcirc$  No

If it went off site:  $\bigcirc$  Yes  $\bigcirc$  No

Duration of the release?: <u>15 minutes</u>

Is the release now stopped?:  $\bigcirc$  Yes  $\bigcirc$  No

Was there any damage? (i.e. property and/or environmental):  $\bigcirc$  Yes  $\bigcirc$  N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

The second splitter chamber pipe was opened and the overflow stopped.

What actions have been taken to remediate the incident?

A sample was taken according to the ECA and the plastic MBBR media that was released has been cleaned up.

Was this a reportable spill or discharge?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it first reported to the MOE?

It was reported to SAC at 12:04 PM.

Was it reported to the MOE district office?:  $\bullet$  Yes  $\bigcirc$  No

If "Yes", which office/location and who was the contact?: It was reported by voicemail to Bob Graham at the Owen Sound District Office at 12:10 PM.

Was it reported to MOE SAC?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it reported to MOE SAC?:

It was reported to SAC at 12:04 PM.

Was it reported to Municipality?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it reported to Municipality?:

It was reported to the Town of South Bruce Peninsula at 12:15 PM.

#### **External Assistance/Involvement**

Was corporate or area office assistance requested?: $\bigcirc$ Yes $ullet$ No
If "Yes", was it received?: $\bigcirc$ Yes $\bigcirc$ No
Was external emergency assistance requested?: $\bigcirc$ Yes $ullet$ No
If "Yes", from who?:       Fire Department       Equipment Suppliers       Canutec         Ambulance or Hospital       MOE       Coast Guard         Police       Municipality
Other:
Was there any media involvment?: $\bigcirc$ Yes $igodoldsymbol{No}$
If "Yes", who?:
Was the public affected?: $\bigcirc$ Yes $ullet$ No
If "Yes", how?:
Updated By: Karla Young 04/13/2023 06:53:19 PM

#### **Comments:**

April 5, 2023

11:00 AM - On-site operators observed the MBBR being overtopped

11:15 AM - Operators were able to open second splitter chamber pipe to accomodate for extra volume and MBBR was no longer being overtopped

11:24 AM - SOM informed PCT of overflow event

12:00 PM - SOM called Town of South Bruce Peninsula to notify of overflow event

12:10 PM - Operators take sample according to ECA to test for BOD5, TSS, TKN and TP and pick up any media that was released during the overflow event

12:04 PM - PCT called SAC to notify of overflow event

12:10 PM - PCT left voicemail with Bob Graham at Owen Sound District MECP to notify of overflow event

12:24 PM - PCT left voicemail with Jos Moerman at Grey Bruce Health Unit to notify of overflow event 12:52 PM - PCT updated SAC with volume of overflow (70 m3)

13:16 PM - Jos Moerman at Grey Bruce Health Unit returned PCT voicemail with no further actions required

April 13, 2023

09:16 AM - Sample results recieved from lab

P# 608386156392 HCRTN SR. 10:30

Revised: 2023-04-05

Revision #1

Station Acronym: Cell - Coll Contents, Dis- Distinction, Downstream, EH: Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Weil, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digesion, Bar - Biosolids esc super, Bar - Biosolids sec super, Bar - Biosolids solid quality, Bsoq - Biosolids soli quality, DAF - Dissoled Air Floatation, Grit - Primary Traatment/Grit, PrE1 - Primary Effluent, RAS - Return Activated Studge, SBR - Secondary Teamment/SBRs, ScE1 - Secondary Effluent, TMAS - Thickneed Waste Activated Studge, IndV - Industrial Wastewater, PSin - Pump Sin, Sept - Septage, LcH: - Leachate, P7Tr - Primary Treatment, Rev - Re-aeration, Tert - Terliary Treatment, Alto - Actifuto, Terlary Bypass, Hold - Holding Tark, CSO - Combined Sever Overflow, SSO - Sanitary Sever Overflow

Ontario Clean	Labo	bervices and CHAIN OF CUSTODY -	OVERFLOW					Page 1 of 1
())	Waterworks/Project # 1100	918000011			C of C LIMS No: APR-	2-13177		
	Facility Name Wiarton WWTP	WTP			Laboratory Section		Sample condition upon receipt	
	Org. # 5620				Date Rec'd: APR 0	0 6 2023	Time Rec'd: Initials	
		]						Ĩ
	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	the sample(s) fall: No Requirement to	Report Samp	le Results Unc	er Any Regulation for Wastewal	for Wastewater Treatment	c	
	Requested Turnaround Time:		App. Req'd	24-48 h	x	5-7d	7-10d Other Specify:	
	Report to: Process & Compliance Technician (PCT)	ician (PCT) Data Transfer Contact: PCT	act: PCT		Invoice To: Ontario Clean Water	ater Agency	Laboratory: SGS Lakefield / London Research I td	beogroph I td
Address:	18 Caroline Street Southampton, ON NOH 2L0				18 Caroline Street		185 Concession St., Lakefield, ON, KOL 2H0 657 Consortium Court, London, ON, NGE 2S8	6E 2S8
Telephone:	519-374-5782	519-374-5782			(519) 797-2561		705-652-2000 / 519-672-4500	
Fax:	(519) 797-3080 kyoung@ocwa.com	(519) 797-3080			(519) 797-3080		705-652-6365 / 519-672-0361	
Lindu.	is conduction	syound mocwa.com			apwestnignlands@ocwa.com		carrie.greenlaw@sgs.com / angela.stott@sgs.com	tt@sgs.com
1	Sample		CI Res	CI Residual (mg/L)		Paramaters	Comments	-
Station Acronym Number Name)	Sample Location Name	Date & Time Collected 2023/04/05	Free	Total Combined (mg/L)	BOD <sub>5</sub> Total Suspended Solids Total Phosphorous TKN			Upload to MOE
cso cso	- HAROverflow (Grab)	12:10			X X X X		No Zov	Yes Yes X
				144			Yes	No O
							Yes	No No
							Ves	No No
							Yes	No No
							Yes	No Contraction
							Jow	No C
							Yes No	LLL
Sampler Name:	DEN CAFERO	FSAD	Sampler Signature:	gnature:	Ton horas			



**SGS Canada Inc.** P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365

#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

#### 13-April-2023

Date Rec. : 06 April 2023 LR Report: CA13177-APR23

**Copy:** #1

## CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	9: CSO CSO-MBBR Overflow (Grab)
Sample Date & Time					05-Apr-23 12:10
Temperature Upon Receipt [°C]					10.0
Biochemical Oxygen Demand (BOD5) [mg/L]	06-Apr-23	19:55	12-Apr-23	12:39	71
Total Suspended Solids [mg/L]	11-Apr-23	10:08	12-Apr-23	13:06	169
Phosphorus (total) [mg/L]	11-Apr-23	14:23	13-Apr-23	07:37	1.10
Total Kjeldahl Nitrogen [as N mg/L]	11-Apr-23	09:53	12-Apr-23	10:26	1.1

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003297351

Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

### Ontario Clean Water Agency Environmental Incident Report

Facility ID:	5620	EIncidentRep ort
Facility Name:	Wiarton Wastewater Treatment Lagoon	
Address:	441048 Elm St	
City:	Wiarton	
Province:	Ontario	
Postal Code:	N0H 2T0	
Date of Occurrence:	06/30/2023	
Time of Occurrence:	05:20:00 AM	
Nature of the Incident		
• Level 1 Contingenc	y O Level 2 Contingency O Level 3 Contingency Click here To	Show the Definitions
Incident affected:	ir 🛛 Water 🗌 Land 🗌 Nothing	
What was discharged o Chlorine Sodium Hypochlori Calcium Chloride Aluminum Compou Arsenic Fluoride	Oil/Diesel/Gas	
	Other:	
If this was a discharge, sp	ill or emission	
If a liquid, approximate	ely what quantity was released?: <u>22630</u> Litres	
If a gas, approximately	what quantity was released?:	
If a solid, approximate	ly what quantity was released?: Kg	
What was the source of	f release?:	

Filtered lagoon effluent was released without UV treatment.

Where did the release go?:

Through the regular outfall to Colpoy's Bay.

If it entered a watercourse:  $\bigcirc$  Yes  $\bigcirc$  No

If it went off site:  $\bigcirc$  Yes  $\bigcirc$  No

Duration of the release?: 60 minutes

Is the release now stopped?:  $\bullet$  Yes  $\bigcirc$  No

Was there any damage? (i.e. property and/or environmental):  $\bigcirc$  Yes  $\bigcirc$  No  $\bigcirc$  N/A

If "Yes", describe below and fill out "Insurance Claim" report

#### Action(s) Taken

What actions were taken to control the incident?

Operator shut down flow to filter building and reset the UV system.

What actions have been taken to remediate the incident?

The UV system was reset and samples were taken.

Was this a reportable spill or discharge?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it first reported to the MOE?

Reported to SAC on June 30, 2023 at 07:20 AM. Incident # 1-3L9AN6.

Was it reported to the MOE district office?: • Yes  $\bigcirc$  No

If "Yes", which office/location and who was the contact?: It was reported on June 30, 2023 to Tyler at the Owen Sound District Office at 08:45 AM and a message was left with Bob Graham at the Owen Sound District Office at 08:50 AM.

Was it reported to MOE SAC?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it reported to MOE SAC?:

It was reported to Akiko at SAC on June 30, 2023 at 07:20 AM.

Was it reported to Municipality?:  $\bigcirc$  Yes  $\bigcirc$  No

If "Yes", at what time was it reported to Municipality?:

A message was left on June 30, 2023 at 08:40 AM with the Town of South Bruce Peninsula.

#### **External Assistance/Involvement**

Was corporate or area office assistance requested?: $\bigcirc$ Yes $ullet$ No	
If "Yes", was it received?: $\bigcirc$ Yes $\bigcirc$ No	
Was external emergency assistance requested?: $\bigcirc$ Yes $ullet$ No	
If "Yes", from who?: Fire Department Ambulance or Hospital MOE Police Municipality	Canutec Coast Guard
Other:	
Was there any media involvment?: $\bigcirc$ Yes $ullet$ No	
If "Yes", who?:	
Was the public affected?: $\bigcirc$ Yes $lacksquare$ No	
If "Yes", how?:	
Updated By: Karla Young 06/30/2023 10:59:47 AM	
<u>Comments:</u>	

June 30, 2023
- 05:20 am A power bump caused the UV system to fail
- operator shut down flow to the filter building upon arrival and reset the UV
system
- samples were taken
- reported to SAC at 07:20 am to Akiko. Incident # 1-3L9AN6.
- reported to GBHU at 08:35 am and left message
- reported to Tyler and Bob Graham at MECP
- samples sent to lab - due to the bypass happening on a Friday of a holiday
weekend where the lab and Purolator are closed on Saturday and Monday the
samples will not be able to be sent until Tuesday July 4, 2023
- regular sampling will be conducted on July 4, 2023

		щ щ	щ. Щ.	<u> </u>		<b></b>	⊈ ₽				ion Acronym Station (Short		÷	Telephone:								Ontario Clean Wa
)								- Effluent (Composite)	and the second se	- Ffluent (Grah)	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under whic	Quote # Attached Parameter List	Org. # 5620	roject #	er Agency - Request for Laboratory
SHERER	\$							06-20 1	06:20	>	Date & Time Collected		kyoung@ocwa.com	519-374-5782				Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	No Yes		110000819	Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (BYPASS)
Sampler Signature:	Ponda Pin							1	のないにな		Free	CI Residu				act: PCT	App. Req'd	o Report Sample	Ω.			- SEWAGE (BYP,
lature:				10					の時代の		Combined (mg/L)	CI Residual (mg/L)					24-48 h	Results Und				ASS)
								×			Total Suspended Solids	1	apwesthighlands@ocwa.com	(519) 925-1938	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Water Agency		er Any Regulation fo	-	Laboratory Section Date Rec'd:	C of C LIMS No:	
								×		×	Total Phosphorous E.Coli CBOD <sub>5</sub>	P	Docwa.com			io Clean Water A	×	or Wastewater Tri	Temperature Upon Receipt	JUL 0 5	0: TUL	
								×			TKN	Paramaters				gency	5-7d	eatment	Receipt	2023	t	Sr.
		E			3			×			Total Ammonia Nitrogen										15	5
		-		-				××	$\left  \right $	-	Nitrite						Ш		20	-	24	1
								×			Nitrite + Nitrate						7-10d			Sample Time Rec'd:	R	)
									Temperature (C) =	pH= /		Comments	carrie.greenlaw@sgs.com	705-652-2000	185 Concession St. Lakefield, ON KOL 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:		റ്	condition upon receipt		
		No	Yes	No	No	Yes	No	No	NolX	Yes	Upload to MOI	E				search Ltd			1	Initials		Page
			No Xes					No X		Yes	Upload to OCW	/A								8		Page 1 of 1



**SGS Canada Inc.** P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365

#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

#### 12-July-2023

Date Rec. : 05 July 2023 LR Report: CA13072-JUL23

**Copy:** #2

## CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits May to Oct	7: Client Objectives May to Oct	9: Eff Eff-Effluent (Comp)
Sample Date & Time							30-Jun-23 06:20
Temperature Upon Receipt [°C]							20.0
Carbonaceous Biochemical Oxygen Demand [(CBOD5) mg/L]	06-Jul-23	14:23	11-Jul-23	15:19	15.0	10.0	< 4
Total Suspended Solids [mg/L]	07-Jul-23	07:05	10-Jul-23	11:24	15.0	10.0	6
Phosphorus (total) [mg/L]	06-Jul-23	15:04	10-Jul-23	09:59	0.3	0.15	0.07
Total Kjeldahl Nitrogen [as N mg/L]	05-Jul-23	20:18	06-Jul-23	14:07			3.4
Ammonia+Ammonium (N) [as N mg/L]	06-Jul-23	18:47	07-Jul-23	12:18	3.0	3.0	3.1
Nitrite (as N) [mg/L]	06-Jul-23	16:25	07-Jul-23	13:06			0.34
Nitrate (as N) [mg/L]	06-Jul-23	16:25	07-Jul-23	13:06			1.34
Nitrate + Nitrite (as N) [mg/L]	06-Jul-23	16:25	07-Jul-23	13:06			1.68

\*Limited sample volume received - results maybe elevated.

Carrie Greentaw Project Specialist, Environment, Health & Safety

0003395148

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\*Station Acronym: Coll - Cell Contents, Dis – Disinitetion, Down - Downstream, Eff – Final Effluent, PrBy – Prinary Bypass, Raw - Raw Sterage, ScBy - Secondary Bypass, Tup - Upstream, Well - Monitoring Well, Aer - Aention, Bis - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digeston, Bed - Biosolids soil quality, DAF - Dissolved Air Fondative, Prinary Bypass, Tup - Upstream, Well - Monitoring Well, Aer - Aention, Bis - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digeston, Bed - Biosolids soil quality, DSF - Dissolved Air Fondative, Get - Primary Treatment/Git, PFEI - Primary Effluent, RAS - Roturn Activated Sludge, SBR - Secondary Treatment/SBR, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSn - Pump Stn, Sept - Septage, Lent - Leachate, PTI - Primary Treatment, ReA - Re-aeration, Tert - Tertiary Treatment, Aflo - Adtilo, TeBy - Tertiary Bypass, Hold - Holding Tark, CSO - Combined Sever Overflow, SSO - Santiary Sever Overflow Revision #7 10:30 Sh 608627207039 Revised: 2022.07.28

			Aer Aer	Raw Raw	Station Acronym Number (Short Name)		8	Fax:		Address:						K	0	Potazio Clean Wat	
	Effluent (Composite)	- Effluent (Grab)	- MBBR Effluent	- Raw Sewage	Sample Location Name	Sample	kyoung@ocwa.com	(519) 797-3080	NUTI 2LU	18 Caroline Street Southampton, ON	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Ouote # Attached Parameter List	Org. # 5620	1	Waterworks/Project # 110000819	Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY, MONTHLY & WEEKLY)	
	8	12:20 1	12:00 2	12:10 2	JUL 0 4 2023 # 6		kyoung@ocwa.com	(519) 797-3080	14011 ELO		xian (PCT) Data Transfer Contact: PCT		e sample(s) fall: No Requirement to F	No Yes		NTP	0819	rviews and CHAIN OF CUSTODY - S	
				ber -	Field Total (mg/L)	CI Residual					Ict PCT	App. Req'd 2	Report Sample Results L					SEWAGE (QUARTERL)	
_			× ×	x x	Combined (mg/L) Alkalinity BOD <sub>5</sub> Total Suspended		apwestnignlands(@jocwa.com	(519) 925-0322	(519) 925-1938	136 Main St. E Shelburne, ON	Invoice To: Or	24-48 h	<b>Inder Any Regulation f</b>		Date Rec'd:	I aboratory Section	C of C LIMS No:	. MONTHLY & WEEK	
	* *		××	××	Solids Total Phosphorous E.Coll CBOD <sub>5</sub>		us(a)ocwa.com	2			Invoice To: Ontario Clean Water Age	×	or Wastewater Treatm	Temperature Upon	ed JUL (	writion -1	No:		
	* * *	ec.		×	TKN Total Ammonia Nitrogen Nitrite	Paramaters					ency	5-7d	nent	Receipt C	5 2023	1.122	84V21-		
	× × ×				Nitrate pH (at 15°C ± 1°C) Un-ionized Ammonia (WSER)							7-10d		2123	Time Rec'd:	Sampl			
	no preservative	I - ZSOML HUFF Storie Doue pH = C) =SOC Temperature (C) =SOC	2 - 500 mL PET bottles; no preservative	2 - 500 mL PET bottles; no preservative		Comments	contraction and a second	705-652-6365	705-652-2000	185 Concession St. Lakefield, ON K0L 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:		ິດ	SR. Initials	Sample condition upon receipt			
Yes Yes			No No No		Upload to MC	-					rch Ltd				als			Page 1 of 1	



#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #:110000819Project :PO#017018

11-July-2023

 Date Rec. :
 05 July 2023

 LR Report:
 CA13078-JUL23

Copy:

#1

### CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits May to Oct	7: Client Objectives May to Oct	9: Raw Raw-Raw Sewage	10: Aer Aer-MBBR Effluent	11: Eff Eff-Effluent (Grab)
Sample Date & Time							04-Jul-23 12:10	04-Jul-23 12:00	04-Jul-23 12:20
Temperature Upon Receipt [°C]							21.0	21.0	21.0
Field pH [no unit]					6.0-9.5				7.40
Field Temperature [celcius]									26.5
Biochemical Oxygen Demand (BOD5) [mg/L]	06-Jul-23	14:23	11-Jul-23	13:19			190	108	
Total Suspended Solids [mg/L]	08-Jul-23	11:08	11-Jul-23	14:48	15.0	10.0	239	191	
Alkalinity [mg/L as CaCO3]	06-Jul-23	06:41	10-Jul-23	11:24			250	175	
Phosphorus (total) [mg/L]	06-Jul-23	15:04	10-Jul-23	10:00	0.3	0.15	4.80	3.26	
Total Kjeldahl Nitrogen [as N mg/L]	05-Jul-23	20:18	06-Jul-23	14:08			39.4		
E. Coli [cfu/100mL]	05-Jul-23	18:50	07-Jul-23	09:59	200 (May 15-Sep15)				< 2

0003394802

Page 1 of 2

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Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.



 Works #:
 110000819

 Project :
 PO#017018

 LR Report :
 CA13078-JUL23

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003394802

Page 2 of 2

Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.)

Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

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200	2	5089	
		1284	1

Revised: 2022.07.28

Revision #7

Sampler Signature: \* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down-Etomer, Final Efftment, PBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Weil - Monitoring Well, Aer - Acation, Bes - Biosolids: thickening, Bpd - Biosolids primary digestion, Bed - Biosolids sec. digestion, Bps - Biosolids pel super, Bas - Biosolids sudge quality, Basq - Biosolids soil quality, DNF - Dissolved Air Fountation, Ont - Primary Effluent, RAS - Return Activated Studge, SBR - Secondary Tratment/SBRs, ScEf - Secondary Effluent, TWAS - Thickness Maxime distuide, WAS - Waste Activated Studge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Icht - Leachate, PTT - Primary Treatment/Cell, PtT - Tertiary Treatment, Alto - Actifio, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanibary Sewer Overflow

				Eff			Ner		Haw		Station Acronym		Email:	Fax:	Telephone:	Address:						
				Ę		74	Ner		Haw	2	Station Number (Short Name)											
				- Effluent (Composite)	cinant (ora)		MUDIC Lilluent		Itaw Cewage	2	Sample Location Name	Sample	kyoung@ocwa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	Facility Name Wiarton WWTP Org. # 5620	Waterworks/Project # 110000819 C of C LIMS No
				09:30							Date & Time Collected JUL 0 5 2023		kyoung@ocwa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON NOH 2L0			the sample(s) fall: No Requirem	No	WWTP	110000819
		T		ω		4	7	0	5	2	# of Bottles		a.com	80	2	, ON	r Contact: I		ent to Rep	Yes		
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					引為意思	語言の		STATE OF	THE REAL	STOCKS	Field Free (mg/L)	CI Residual							le Result			
					調査	a state			Sec. Sec.	STATE OF	Combined (mg/L)							24-48 h	ts Under			
				70.145 400s	(LUNH)	14302	>	×		~	Alkalinity		apwe	(519)	(519)	Sheiburn L9V 3K5	Invoio		Any Re		Labo	Cof
	11	471					>	X	~	*	BOD <sub>5</sub>		strigints	(519) 925-0322	(519) 925-1938	Sheiburne, ON L9V 3K5	e To:		gulatio		Date	CLI
				×			>	×	~	*	Total Suspended Solids		apwestnigniands(@ocwa.com	322	938	Zn	Invoice To: Ontario Clean Water Agency		n for V	-	Laboratory Section Date Rec'd:	C of C LIMS No:
	10			×		-	>	×	~	×	Total Phosphorous		ocwa,c				o Clear	-	Vastew	Temperature Upon Receipt	š	0:
						×					E.Coli		mo				1 Wate	×	ater Tr	ature L	JUL	6
				×							CBOD <sub>5</sub>	Para					r Agen		eatme	Ipon R	0 6	ř
				×					>	×	TKN	ramaters					ą	5-7d	1	eceipt	2023	1
10				×							Total Ammonia Nitrogen	rs						_		2	ω	-
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			×	×							Nitrate									W	5.1	Y
	-			×							pH (at 15°C ± 1°C)		1								Samp Time Rec'd:	
-		-		×			_				Un-ionized Ammonia (WSER)		15	2 7	7	70-		7-10d			Sample lec'd:	
	-	_		20	=	1	2	N	5	N	-		dille.g	705-652-6365	05-652	KoL 2H0	aborat			ဂိ	condit	
				3 - 500 mL PET bottles; no preservative	Temperature (C) =	1 – 250mL HDPE sterile bottle pH =	no preservative	2 - 500 mL PET bottles;	no preservative	2 - 500 mL PET bottles;		Comments	callie.gleeillaw@sgs.colli	2-6365	2-2000	Lakefield, ON K0L 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:			Sample condition upon receipt Rec'd: Initials	
	N M		No	No	No	Yes X	No	Yes X	No	Yes X	Upload to MO	E					ch Ltd				0	
No C		No Ves			No		No	Yes X	No	Yes X	Upload to OCV	VA									C	



SGS Canada Inc. P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365

#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

14-July-2023

Date Rec.: 06 July 2023 LR Report: CA13202-JUL23

Copy: #2

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits May to Oct	7: Client Objectives May to Oct	9: Eff Eff-Effluent (Composite)
Sample Date & Time							05-Jul-23 09:30
Temperature Upon Receipt [°C]							25.0
Carbonaceous Biochemical Oxygen Demand [(CBOD5) mg/L]	06-Jul-23	14:23	11-Jul-23	15:27	15.0	10.0	< 2
Total Suspended Solids [mg/L]	12-Jul-23	07:36	12-Jul-23	15:19	15.0	10.0	4
pH@temp15 [pH Units]	07-Jul-23	10:35	10-Jul-23	14:57			7.64
Phosphorus (total) [mg/L]	07-Jul-23	22:04	10-Jul-23	11:15	0.3	0.15	0.03
Total Kjeldahl Nitrogen [as N mg/L]	07-Jul-23	16:25	10-Jul-23	11:49			4.0
Unionized Ammonia @temp15 [mg/L as N]	07-Jul-23	10:35	10-Jul-23	14:58			0.043
Ammonia+Ammonium (N) [as N mg/L]	07-Jul-23	21:23	10-Jul-23	13:24	3.0	3.0	3.6
Nitrite (as N) [mg/L]	11-Jul-23	13:39	14-Jul-23	13:40			0.70
Nitrate (as N) [mg/L]	11-Jul-23	13:39	14-Jul-23	13:40			1.33
Nitrate + Nitrite (as N) [mg/L]	11-Jul-23	13:39	14-Jul-23	13:40			2.03

Note: Federal unionized ammonia at 15 °C calculated using lab pH results performed at this temperature.

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003400273

Page 1 of 1 Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or

From:	Karla Young
To:	Graham, Robert G. (MECP); "Smith, Mark (MECP)"; "Shannon, Rhonda (MECP)"
Cc:	Leo-Paul Frigault; -GHRH-SPCM@ocwa.com (Mailing List); Caralynn McRae
Subject:	2023 Q3 - Bypass Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	October-23-23 11:03:00 AM

Good Morning,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

#### **Bypass Events**

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Data	Ti	ne	Duration	Volume		Samples Collected		Impact of Event	Mitigation
Date	Start	End	HH:MM	( <b>m</b> <sup>3</sup> )	Bypassed	Conecteu	Bypass	Event	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

#### **Overflow Events**

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Tir	ne	Duration         Volume         Disinfection         Samples           Receiver         Status of         Collected			Impact of Event	Mitigation: Taken and			
Date	Start	End	HH:MM	(M <sup>3</sup> )	Receiver	Overflow	Conecteu	Overflow	Lvent	Planned
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young Process & Compliance Technician Grey-Bruce/Bruce Hubs Georgian Highlands Region **Ontario Clean Water Agency** <u>kyoung@ocwa.com</u> (519) 374 - 5782

From:	Karla Young
To:	<u>"Graham, Robert G. (MECP)"; "Smith, Mark (MECP)"; "Shannon, Rhonda (MECP)"</u>
Cc:	Leo-Paul Frigault; -GHRH-SPCM@ocwa.com (Mailing List); Caralynn McRae
Subject:	2023 Q4 - Bypass Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	January-30-24 4:53:00 PM

Good afternoon,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

#### **Bypass Events**

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Data	Ti	ne	Duration	Volume		Samples Collected		Impact of Event	Mitigation
Date	Start	End	HH:MM	( <b>m</b> <sup>3</sup> )	Bypassed	Conecteu	Bypass	Event	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

#### **Overflow Events**

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Tir	ne	Duration         Volume         Disinfection         Samples           Receiver         Status of         Collected			Impact of Event	Mitigation: Taken and			
Date	Start	End	HH:MM	(M <sup>3</sup> )	Receiver	Overflow	Conecteu	Overflow	Lvent	Planned
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young Process & Compliance Technician Grey-Bruce/Bruce Hubs Georgian Highlands Region **Ontario Clean Water Agency** <u>kyoung@ocwa.com</u> (519) 374 - 5782



# Appendix E Septage Laboratory Results

80- 1030

Stalion Acconym: Cell - Coll Contents, Dis - Distinction, Down Stream, Ett - Final Elivoration propages, they - Boost and Staling outputs provides primary expansion, Bar - Stalion Acconym: Cell - Coll Contents, Dis - Distinction, Boost - Stalian Acconyme, Cell - Coll Contents, Dis - Distinction, Cell - Final Elivoration State - S

_						Sept Sept -	Station Acronym Station Number (Short		Email: Kyo		hone:	Address: 18 Sol NDF	Rep		Ide	Alte	On Fa
						Seplage - Holding Tank	Sample Location Name	Sample	Kyoung@ocwa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	Facility Name Wiarton WWTP Org. # 5620
0	14					13:30	Date & Time Collected JAN 0 4 2023		Kyoung(woowa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON N0H 2L0	an (PCT) Data Transfer Contact: PCT		sample(s) fall: No Requireme	No	ITP
						8	# of Bottles		COIN			NC	Contact:		ont to Re	Yes	
						×	BOD5	Π					PCT	Арр.	aport S		
Charles			1.0			×	Total Suspended Solids								ample		
Sampler Sinnature			T:			×	Total Phosphorous		ł						Result		1
_						×	TKN							24-48 h	s Unde		35
1	1	_	1			×	Total Ammonia Nitrogen		apwes	(519) 9	(519)	136 Main Shelburn L9V 3K5	Invoic		ar Any	1	Labor
2						×	Chemical Oxygen Demand		apwestnigmanos(wocwa.com	(519) 925-0322	(519) 925-1938	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Water Agency		Regula		Laboratory Section Date Rec'd:
						×	Acetone		mosta	22	38	žm	Ontario		ation fo	Te	Section Rec'd:
0	-	- 1				×	Benzene	Parameters	DCWd.C				Clear	_	or Was	Temperature Upon	
		_				×	Ethylbenzene	eters	100				Wate	×	lewale	lure U	JAN 0 5
		_				×	isopropyl Alcohol						r Ager		r Trea	pon R	52
			. 1			×	Methyl Alcohol						ICY	5-7d	Iment	Receipt	023
	121					×	Methylene Chloride									-	
						×	Methyl Ethyl Ketone									IX3	
						×	Methylene Chloride							1.77		00	Time
	1			J.		×	Toluene							7-10d			Samp Time Rec'd:
	-		: 11			×	Xylene		came	705-6	705-6	185 Conc Lakelield, KOL 2H0	Labor	112		°C	le con
						2 - 500 mL PET bolles, 2 - 60 mL plasic w/ subhuric acid preservative, 2 - 40 mL EPA vlais unpreserved 2 - 40 mL EPA vlais w/ sodium bisubhale preservative (no hrandspace)		Comments	came.greeniaw@sqs.com	705-652-6365	705-652-2000	185 Concession St. Lakelield, ON KOL 2H0	Laboratory: SGS Lakelield Research Ltd	Other Specify:			Sample condition upon receipt Initials
	Yes	Yes	No	No	Yes	No Nos	Upload to MO						rich Ltd				
	No		No	No.	Yes 0		Upload to OCW	A									

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

 Waterworks/Project #
 110000819
 N
 C of C LIMS No:

Page 1 of 1

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3098

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Revised: 2017.12.01

Revision #1

Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Efl - Final Elluent, PGy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids raw sludge, Bh - Biosolids Indexening, Bpd - Biosolids primary digestion, Bas - Biosolids primary Liftuent, Ras - Rewin Activated Studge, Sh - Biosolids sec super, Bsq - Biosolids sec super, Bsq - Biosolids solid spinary digestion, Bsd - Biosolids sec super, Bsq - Biosolids sec super, Bsq - Biosolids solid spinary Liftuent, RAS - Rewin Activated Studge, SB - Secondary Treatment/SBR, ScE - Secondary Elluent, TWAS - Thickened Waste Activated Studge, WAS - Waste Activated Studge, IndW - Industrial Wastewater, PSIn - Pump Sin, Sep - Seplage, Lcht - Leachate, PTI - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Alto - Actillo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sever Overflow, SSO - Sanitary Sever Overflow しまて (エロシアバ CANCONC - and an

							Sept	Station Acronym		Email:	Fax:	Telephone:	Address:		
					Ī		Sept	Station Number (Short Name)				e			
1F	-	-			1	28	1.0.1			medr	(519)	519-3	18 Caroli Southam NOH 2L0	Repo	-
							Septage - Holding Tank	Sample Location Name	Sample	medney2@ocwa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON NOH 2L0	Report to: Megan Edney	Requested Turnaround Time:
							13:30	Date & Time Collected JAN 0 4 2023		medney2@ocwa.com	(519) 797-3080	519-374-5782	18 Caroline Street Southampton, ON N0H 2L0	Data Transfer Contact: Megan Edney	
					1.7		N	# of Bottles		va.com			ON	Contac	
		1.64					×	Aluminum	П					ct: Me	
				51	1	-	×	Arsenic	1					gan Eo	
							×	Barium	1					dney	
					1		×	Cadmium	1						App.
							×	Calcium	1						
				. 1			×	Chromium							
					11		×	Cobalt	1						24-48 h
							×	Copper	1	apwe	(519)	(519	136 Main Shelburne L9V 3K5	Invoi	48
							×	Iron		esthigh	925-	925-	136 Main St. E Shelburne, ON L9V 3K5	Invoice To:	
							×	Lead	Parar	lands	322	1938	ON TH	Onta	
							×	Magnesium	Parameters	@ocw				trio Cl	
							×	Manganese	1	a.com	(519) 925-0322			Ontario Clean Water Agency	×
		11					×	Mercury	1	ſ				ater A	
							×	Nickel						gency	5-7d
		1.11					×	Potassium							
							×	Selenium							
						_	×	Silver							
							×	Sodium							
	-						×	Tin		-					7-10d
	-					11	×	Zinc		carrie	705-6	705-6	185 Conc Lakefield, KOL 2H0	Labo	
	*						1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for		Comments	carrie.greenlaw@sgs.com	705-652-6365	705-652-2000	185 Concession St. Lakefield, ON KOL 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:
	Yes	Yes	Yes No	No	Yes No	No	Yes X	Upload to MOI	=					sh Ltd	
13						No D		Upload to OCW	/A					i	

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE) Org. # Waterworks/Project # 110000819 Facility Name 5620 Wiarton WWTP C C OF C LIMS NO: UCUL -Laboratory Section Date Rec'd: JAN 0 5 2023 1309B Time Rec'd: Sample condition upon receipt

の

Attached Parameter List

No

Yes

Temperature Upon Receipt

IIX3

o

Initials

Page 1 of 1

Quote #

242



SGS Canada Inc. P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365

#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

#### 20-January-2023

Date Rec.: 05 January 2023 LR Report: CA13098-JAN23

0003201526

Copy: #1

### CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1:	2:	3:	4:	5:
	Analysis Start Date	Analysis Star Time	t Analysis Completed Date	Analysis Completed	Sept Sept-Septage-Hold
				Time	ing Tank
Sample Date & Time					04-Jan-23 13:30
Temperature Upon Receipt [°C]					11.0
Biochemical Oxygen Demand (BOD5) [mg/L]	10-Jan-23	16:02	16-Jan-23	10:47	1590
Total Suspended Solids [mg/L]	09-Jan-23	13:32	10-Jan-23	13:23	448
Chemical Oxygen Demand [mg/L]	06-Jan-23	14:41	16-Jan-23	10:47	2350
Ammonia+Ammonium (N) [as N mg/L]	09-Jan-23	22:14	10-Jan-23	09:20	7.8
Total Kjeldahl Nitrogen [as N mg/L]	06-Jan-23	07:37	10-Jan-23	10:36	58.7
Isopropyl Alcohol [mg/L]	19-Jan-23	10:02	19-Jan-23	16:35	< 5
Methyl alcohol [mg/L]	19-Jan-23	10:02	19-Jan-23	16:35	< 5
Acetone [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 1200
Benzene [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
Ethylbenzene [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
Dichloromethane [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
Methyl ethyl ketone [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 800
Toluene [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
Xylene (total) [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
o-xylene [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
m/p-xylene [ug/L]	06-Jan-23	21:51	09-Jan-23	13:54	< 20
Mercury (total) [ug/L]	06-Jan-23	06:52	06-Jan-23	11:24	0.44
Aluminum (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	1.24
Arsenic (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.0025
Barium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.0515
Calcium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	107
Cadmium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.000638
Cobalt (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.000745
Chromium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.00455
Copper (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.436
Iron (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	7.91
Potassium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	35.6
Magnesium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	27.3
Manganese (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.425
Sodium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	78.4

Page 1 of 2

Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or



**SGS Canada Inc.** P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365 Works #: 110000819

Project : PO#017018 LR Report : CA13098-JAN23

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Hold ing Tank
Nickel (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.0108
Phosphorus (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	9.03
Lead (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.0134
Selenium (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.00115
Tin (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.00278
Silver (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	0.00063
Zinc (total) [mg/L]	06-Jan-23	10:56	09-Jan-23	10:49	2.12

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Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003201526

Results relate only to the sample tested. Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at https://www.sgs.ca/en/terms-and-conditions (Printed copies are available upon request.) Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. SGS Canada Inc. Environment-Health & Safety statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

puro. SR 10:00

Revised: 2022.02.17

Revision #2

Station Acronym: Cell - Cell Contents, Dis-Disinfection, Down - Downstream, Etr. Final Elluent, FriBy - Frimary Bypass, Raw. Raw Sewage, SEB - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aration, Bes - Biosolids raw sludge, Bih - Biosolids plintering, Bpd - Biosolids primary eligostion, Bps - Biosolids are super, Bar - Biosolids studge quality, Boo q - Biosolids soil quality, DAF - Dissolved Air Fleatalion, Gril - Primary Ellurent, RAS - Rewin Activated Studge, SBH - Secondary Treatment/SRt, Secondary Elluent, IVMAS - Thickned Waste Activated Studge, IndW - Industrial Wastewater, PSIn - Pump Sin, Sephage, Lcht - Leachate, Print - Primary Treatment, ReAr - Revariation, Tert - Toritary Treatment, Alto - Actilio, Telly - Terlary Bypass, Hold - Holding Tark, CSD - Combined Steward Overflow

Org. #     SG20       Under Frammer List     No       Matched Frammer List	ampler Name:	23						Sept	Station Acronym		imail:	ax:	Felephone:	Address:		٦.,			
5520         Page         Transmut Upon Receit         FEB 1.6 /UC3         Transmut Upon Receit         V/x         Transmut Upon Receit         V/x         Transmut Upon Receit         V/x         V/x         Transmut Upon Receit         V/x         Transmut Upon Receit         V/x         V/x         Transmut Upon Receit         V/x         Transmut Upon Receit         V/x         V/x <td>Name:</td> <td></td> <td></td> <td></td> <td>IJ</td> <td></td> <td>I</td> <td>Sept</td> <td>Stalion Number (Short Name)</td> <td></td> <td></td> <td></td> <td>16:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Name:				IJ		I	Sept	Stalion Number (Short Name)				16:						
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Time Recd:     Initials       7-10d     Other     Specify:       Iaboratory: SGS Lakefield, ON     Iaboratory: SGS Lakefield, ON       K0k: 2H0     705-652-2000       705-652-6365     Camments       Came     Comments       X     X       X     2 - 500 mL PET bollites, 2 - 40 mL EPA vials uny sodium       X     2 - 40 mL EPA vials uny sodium       Bisuphate preservative (no meadspace)     Yes       Yes     Yes       No     Yes       No     Yes       No     Yes			1	T			1	×	Methyl Ethyl	1								6	
org     Initials       Other     Specify:       Laboratory: SGS Lakefield Research Ltd       185 Concession St.       Lakefield, ON       K0L 2H0       705-652-6365       carrie_arreentaw/9503.com       2 - 500 mL PET bolltes,       2 - 40 mL EPA vials w/ sodum       bisuphate preservative (no       No       Vest       Viet       No				t	-			×	Methylene									in	Tim
org     Initials       Other     Specify:       Laboratory: SGS Lakefield Research Ltd       185 Concession St.       Lakefield, ON       K0L 2H0       705-652-6365       carrie_arreentaw/9503.com       2 - 500 mL PET bolltes,       2 - 40 mL EPA vials w/ sodum       bisuphate preservative (no       No       Vest       Viet       No				T				×								7-10			Sar e Rec'
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										Comments	aniaw@sgs.com	365	000	on ON	y: SGS Lakelield Resear	1.21			Sample condition upon receipt Rec'd: Initials
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Page 1 of 1

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)
Waterworks/Project # 110000819
C of C LIMS No:

reb-

13055



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

03-March-2023

Date Rec.: 16 February 2023 LR Report: CA13553-FEB23

**Copy:** #1

# CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Star Time	3: t Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Hold ing Tank
Sample Date & Time					15-Feb-23 09:50
Temperature Upon Receipt [°C]					6.0
Biochemical Oxygen Demand (BOD5) [mg/L]	16-Feb-23	17:21	21-Feb-23	13:25	2180
Total Suspended Solids [mg/L]	21-Feb-23	10:07	22-Feb-23	09:58	433
Chemical Oxygen Demand [mg/L]	17-Feb-23	10:27	21-Feb-23	13:25	3400
Ammonia+Ammonium (N) [as N mg/L]	16-Feb-23	16:39	22-Feb-23	12:34	1.6
Total Kjeldahl Nitrogen [as N mg/L]	21-Feb-23	08:56	23-Feb-23	13:27	79.6
Phosphorus (total) [mg/L]	21-Feb-23	08:56	23-Feb-23	10:39	8.7
Isopropyl Alcohol [mg/L]	28-Feb-23	11:02	03-Mar-23	11:10	< 5
Methyl alcohol [mg/L]	28-Feb-23	11:02	03-Mar-23	11:10	< 5
Acetone [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 1200
Benzene [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20
Ethylbenzene [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20
Dichloromethane [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20
Methyl ethyl ketone [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 800
Toluene [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	31.0
Xylene (total) [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20
o-xylene [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20
m/p-xylene [ug/L]	18-Feb-23	11:46	23-Feb-23	17:02	< 20

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Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

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Revised: 2022.02.17

Revision #2

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		Report to: Process & Compliance Technician (PCT)	T) Data Transfer Contact: PCT	act: PC	7			_	Ivoice	To:	Ontar	io Cle	an Wa	Invoice To: Ontario Clean Water Ag	tency							Labo	Laboratory: SGS Lakefield Researc
Address:		18 Caroline Street Southampton, ON NOH 2L0						- 00-	136 Main St. E Shelburne, ON L9V 3K5	nne, C	ZΠ												185 Concession St, Lakefield, ON K0L 2H0
Telephone:		519-374-5782	519-374-5782					1	(519) 925-1938	25-19	38											705-	705-652-2000
Fax:		(519) 797-3080	(519) 797-3080						(519) 925-0322	25-00	22											705-	705-652-6365
Email:		kyoung@ocwa.com	Kyoung(@ocwa.com					100	pwes	nightia	)SDUE	DOCM	apwestnignlands(@ocwa.com									carri	carrie.greenlaw@sgs.com
		Sample		-								Para	Parameters	\$									Comments
	Station Number (Short Name)	Sample Location Name	Date & Time Collected MAR 1 4 2023 # of Bottles	BODs	Total Suspended Solids	Solids Total	Phosphorous	TKN Total Ammonia	Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol		Methyl Alcohol	Methylene	Methylene Chloride Methyl Ethyl	Methylene Chloride Methyl Ethyl Ketone Methylene	Methylene Chloride Methyl Ethyl Ketone Methylene Chloride	Methylene Chloride Methyl Ethyl Ketone Methylene	Methylene Chloride Methyl Ethyl Ketone Methylene Chloride	Methylene Chloride Methyl Ethyl Ketone Methylene Chloride Toluene
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### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

#### 27-March-2023

Date Rec.: 15 March 2023 LR Report: CA13613-MAR23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis	2: Analysis Start		4: Analysis	5: Sept
	Start Date	Time	Completed Date	Completed Time	Sept-Septage-Holdi ng Tank
Sample Date & Time					14-Mar-23 09:10
Temperature Upon Receipt [°C]					8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	16-Mar-23	16:48	21-Mar-23	11:00	2600
Total Suspended Solids [mg/L]	16-Mar-23	10:44	17-Mar-23	14:50	325
Chemical Oxygen Demand [mg/L]	17-Mar-23	09:54	21-Mar-23	11:00	3200
Ammonia+Ammonium (N) [as N mg/L]	15-Mar-23	21:53	17-Mar-23	10:42	3.5
Total Kjeldahl Nitrogen [as N mg/L]	16-Mar-23	14:18	20-Mar-23	11:54	62.2
Phosphorus (total) [mg/L]	16-Mar-23	14:18	20-Mar-23	10:42	8.3
Isopropyl Alcohol [mg/L]	24-Mar-23	11:24	27-Mar-23	12:40	< 5
Methyl alcohol [mg/L]	24-Mar-23	11:24	27-Mar-23	12:40	< 5
Acetone [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 1200
Benzene [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
Ethylbenzene [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
Dichloromethane [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
Methyl ethyl ketone [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 800
Toluene [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
Xylene (total) [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
o-xylene [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20
m/p-xylene [ug/L]	16-Mar-23	19:34	17-Mar-23	14:01	< 20

Carrie Greenlaw Project Specialist, Environment, Health & Safety

Page 1 of 1

Sampler Name:						Sept	Station Acronym		Email:	Fax:	Address:							(1)
Vame:						Sept	Station Number (Short Name)			le:								
		1							kyoun	519-3	18 Carolin Southam NOH 2L0	Repo	70	Identi	Attachec	Org. #	Facil	Wate
On						Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	# 5620	Facility Name Wiart	Waterworks/Project #
Car						ank	ame	ole				e Technici		r which the			Wiarton WWTP	110000819
ARSAR						12	Dat CO23					ian (PCT)		e sample(s)	No		VTP	0819
						12:25	Date & Time Collected		kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Data Transfer Contact: PCT		fall: No Requireme				
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9						×	Chemical Oxygen Demand		apwesthighlands@ocwa.com	(519) 925-1938 (519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Water Agency		y Regi		Date	Laboratory Section	C OT C LIMS NO:
al	100	1				×	Acetone	1	lands	938	N m	Onta	-	ulation		Date Rec'd:	y Sect	MS N
N		. 1				×	Benzene	Para	Docwa			rio Cle		for Wa	empe		222	10:
aan	1.1					×	Ethylbenzene	Parameters	a.com			an Wa	×	astewa	Temperature Upon	APR 19	100	F
222		1				×	Isopropyl Alcohol	1				ter Ag		Iter Tre	Upon	-		R
1 I	1.1					×	Methyl Alcohol	1			13	ency	5-7d	eatmen	Receipt	C707		0
	0-5	1				×	Methylene Chloride						-	a.	2	10	3	6
	1-1-1					×	Methyl Ethyl Ketone			1					2			b
						×	Methylene Chloride								X	Time		Ť
			-		1	×	Toluene	1					7-10d		m	Time Rec'd:	San	
						×	Xylene	1	cam	705	185 KOL	Lab		8	°C	1	nple co	
	-			1	-	2 - 500 mL 2 - 60 mL p preservaliv 2 - 40 mL E ( <i>no headsp</i> 2 - 40 mL E bisulphate r <i>headspace</i> )			e.qree	705-652-2000	185 Concessi Lakefield, ON K0L 2H0	oratory	Other			1	onditio	
						2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA viats unpreserved 2 - 40 mL EPA viats w/ sodium 5 - 40 mL EPA viats w/ sodium bisulphate preservative (no headSpace)		Comments	carrie.greenlaw@sgs.com	365	185 Concession St. Lakefield, ON K0L 2H0	Laboratory: SGS Lakefield Research Ltd	er Specity:			-	Sample condition upon receipt	
	No	No	No	No C	Yes	n No	Upload to MOI	E				search Llo			(	Initial		
	Ves No		N Tes	No No	Ves No		Upload to OCW	14										
	No		No	No	Yes	Ves X	opidad to OCW	~								11		

Revision #2

10:00



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

01-May-2023

Date Rec. : 19 April 2023 LR Report: CA13655-APR23

**Copy:** #1

## CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Star Time	3: t Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holdi ng Tank
Sample Date & Time					18-Apr-23 12:25
Temperature Upon Receipt [°C]					12.0
Biochemical Oxygen Demand (BOD5) [mg/L]	25-Apr-23	16:17	01-May-23	12:47	2040
Total Suspended Solids [mg/L]	20-Apr-23	08:30	20-Apr-23	16:39	300
Chemical Oxygen Demand [mg/L]	24-Apr-23	07:45	28-Apr-23	16:45	2400
Ammonia+Ammonium (N) [as N mg/L]	24-Apr-23	21:11	27-Apr-23	11:14	7.2
Total Kjeldahl Nitrogen [as N mg/L]	20-Apr-23	14:35	24-Apr-23	08:57	89.8
Phosphorus (total) [mg/L]	20-Apr-23	14:35	25-Apr-23	11:30	9.0
Isopropyl Alcohol [mg/L]	20-Apr-23	10:50	21-Apr-23	12:34	< 5
Methyl alcohol [mg/L]	20-Apr-23	10:50	21-Apr-23	12:34	< 5
Acetone [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 1200
Benzene [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
Ethylbenzene [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
Dichloromethane [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
Methyl ethyl ketone [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 800
Toluene [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
Xylene (total) [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
o-xylene [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20
m/p-xylene [ug/L]	22-Apr-23	08:21	24-Apr-23	11:31	< 20

Carrie Greenlaw Project Specialist, Environment, Health & Safety

Page 1 of 1

Revised: 2022.07.28

10:00

Revision #2

\*Sakon Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Ell - Final Elfluent, Pr8y - Primary Bypass, Raw - Raw Sewago, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids intention, Bpd - Biosolids biology of the secondary Bypass, Paw - Raw Sewago, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids intention, Bpd - Biosolids Intention, Bpd - Biosolids Bpd - Biosolids Secondary Bypass, Paw - Raw Sewago, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids intention, Brs - Biosolids Parameters, Biosolids Secondary Treatment/SBRs, SecI - Secondary Elluent, TWAS - Thickened Waste Activated Sludge, WAS - Naste Activated Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment/Grd, Pr4 - Primary Treatment/Grd, PoH - Tentary Freatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment/, ReAr - Re-anation, Tert - Tertary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment, ReAr - Re-anation, Tert - Tertary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment, ReAr - Re-anation, Tert - Tertary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment, ReAr - Re-anation, Tert - Tertary Treatment, Allo - Activate Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, Pr17 - Primary Treatment, ReAr - Re-anation, Tert - Tertary Treatment, Allo - Activate Sludge, IndW - Industrial Wastewater, PSth - Pump Sth, Sopl - Septage, Lcht - Leachate, PT1 -

Sampler Name:							Sept	Station Acronym		Emair;	Fax:	Address:						8	(n)
Vame:							Sept	Station Number (Short Name)											.0.
				1	1					KYO	(51	NO	Re		Ide	Att	19	Ta	2
DAN (							Seplage - Holding Tank	Sample Location Name	Sample	kyoung@bcwa.com	(519) 797-3080	Ta Caroline Sireet Southampton, ON NOH 2L0 516-374-5782	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fail: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	Org. # 5620	Facility Name Wiarton WWTP	Waterworks/Project # 110000819
CAESAR							12:25	Date & Time Collected		syoung@ocwa.com	(519) 797-3080	18 Caroline Street Southampion, ON NOH 2L0 510-374-5782			the sample(s) fall: No Requirem	No		NWTP	110000819
					1		N	# of Bottles		.com		ON	Contac		ent to F	Yes			
	1			1			×	Aluminum			11		# PCT		Report				
	12.				1	2	×	Arsenic		1			7		Samp				
0	1	1		-	-	-	×	Barium						1.	le Res				
ample	127					1	×	Cadmium						App. Req'd	ults U				
Sampler Signature:							×	Calcium	1						nder /				
ature:	-						×	Chromium						100	iny Re				
-							×	Cobalt				1.1.1		24-48 h	gulatio				
Ro				Ε.			×	Copper		apwe	(519)	Shelburn L9V 3K5	Invo		on for V	1		Lab	Co
3		$\subseteq$		-	1		×	Iron		apwestnighlands@ocwa.com	(519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Wate		Vaste		Date Rec'd: APR 1	orator	C of C LIMS No:
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240	-	-	-	-	-	-	×	Nickel					Agency	5-7d		Receipt	2023		
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	-	-	-	-	-		X Pro	2,110	Н	rrie.or	15-652	185 Conc Lakefield, KOL 2HO	aborate			റ്	1	cond	F
							1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury		Comments	carrie.greenlaw@sgs.com	705-652-6365	185 Concession St. Lakefield, ON KOL 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:				Sample condition upon receipt	
	No	No	No	Yes	No	No	N₀ X	Upload to MOE	L				ch Ltd				Initials		
	No D	No C	No			No		Upload to OCW	A					1		)			age i or i



#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

#### 28-April-2023

Date Rec. : 19 April 2023 LR Report: CA13634-APR23

**Copy:** #1

# CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holdi ng Tank
Sample Date & Time					18-Apr-23 12:25
Temperature Upon Receipt [°C]					12.0
Mercury (total) [ug/L]	19-Apr-23	19:56	20-Apr-23	17:53	0.01
Aluminum (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.193
Arsenic (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.0011
Barium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.0758
Calcium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	130
Cadmium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.000075
Cobalt (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.000460
Chromium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.00160
Copper (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.146
Iron (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	8.92
Potassium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	41.6
Magnesium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	34.4
Manganese (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.306
Sodium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	216
Nickel (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.0068
Lead (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.00325
Selenium (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.00125
Tin (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.00039
Silver (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.00005
Zinc (total) [mg/L]	23-Apr-23	11:57	28-Apr-23	13:15	0.640

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Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

0003316277

13:39 608487603268 KN

Revised: 2022.02.17

Revision #2

Sludge, IndW - Industrial Wastewater, PSth - Pump Sin, Sept - Septage, Leht - Leachate, Pr/Ir - Primary Treatment/Sint, PrET - Primary Educant, RAS - Refurn Activated Sludge, SBR - Secondary Treatment/SBRs, SoEf - Secondary Treatment/SBRs, SoEf - Reviewater, PSth - Pump Sin, Sept - Leachate, Pr/Ir - Primary Treatment/SBR, Rev - Revaeration, Tert - Tertiany Treatment, Allo - Actilite, TeBy - Tertiany Brass, Hold - Holding Tank,

Sampler Name: * Station Acronym: C							Sept	Station Ac	ronyr	π	Citran.	Fax:	Telephone:	Address:								
ame: hym; Cell - Ce							Sept	Number (Short Name)	Station				one:	5								1
all Conlents, Dis - D					1		Sep	Sam			syoung@ocwa.com	(519) 797-3080	N0H 2L0 519-374-5782	18 Caroline Street Southampton, ON	Report to: P	Reques		Identification	Quote #	Org. #	Facility Name	
DAN CH							Seplage - Holding Tank	Sample Location Name		Sample	la.com	80		Street n, ON	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	n or regulation under which	dentification of Boostation	1		Wiart	
HESLE							10:30	Date & Time Collected MAY 1 6 2023	1		kyoung@ocwa.com	519-374-5782 (519) 797-3080	NoH 2L0				accommension or regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewat	No			NWTP	10000013
-					-		8	# of Bottle:	s		va.com	20	n, ON	Street			ement to	Yes				
Sampler Signature:						313	×	BOD <sub>5</sub>		1				CE PC		Ann	Repor	1				
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à	-	+	-	_		-	×	Chemical Oxygen Dema	nd		(519) 925-0322 apwesthighlands@ocwa.com	(519) 925-1938	Shelburne, ON	Invoice To: Ontario Clean Watt 136 Main St F	Г		ny Reg		Dat	Laboratory Section	C of C LIMS No:	ļ
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200	-	+	-	-			×	Benzene	Para		DOCWS			rio Cle			1 for W	Temperature	ď	stion	No:	
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	1	-	1				×	Methyl Alcoho	-					er Agency	0-70		ter Treatment	Joon Receint	1 2023	CN3	Y	
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	-						×	Methyl Ethyl Ketone			11				Г		¢	N			6	
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		-					×	Xylene	11	carr	705	KOL	185 Lak	Lat					d:	Imple		
Sampler Name: Dev CRESER Sampler Signature: SAM/ UniXU							2 - 500 mL PET bottles, 2 - 60 mL plastic w/ suphruic acid preservative, 2 - 40 mL EPA vials unpreserved 2 - 40 mL EPA vials w/ sodium lusulphute preservative (no headspace)		Comments	carrie.greenlaw@sgs.com	705-652-6365	KOL 2HO	185 Concession St. Lakefield, ON	aboratory: SGS Lakefield Research Ltd	Other Specify:		Ċ		Initials	Sample condition upon receipt		
	Yes V	No	No			Yes	No X	Upload to MOE						arch Ltd				1	als			10
1 P	Yes	No	No	No	Yes	Yes	No Ves	Upload to OCW.	A				1									Page 1 of 1

7



#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

05-June-2023

Date Rec.: 17 May 2023 LR Report: CA12816-MAY23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					16-May-23 10:30
Temperature Upon Receipt [°C]					13.0
Biochemical Oxygen Demand (BOD5) [mg/L]	18-May-23	17:29	23-May-23	16:57	1970
Total Suspended Solids [mg/L]	19-May-23	15:15	23-May-23	14:55	340
Chemical Oxygen Demand [mg/L]	19-May-23	10:54	23-May-23	16:56	2380
Ammonia+Ammonium (N) [as N mg/L]	17-May-23	18:00	19-May-23	13:28	19.0
Total Kjeldahl Nitrogen [as N mg/L]	19-May-23	15:57	24-May-23	10:30	98.6
Phosphorus (total) [mg/L]	19-May-23	15:57	24-May-23	13:43	9.9
Isopropyl Alcohol [mg/L]	26-May-23	12:23	05-Jun-23	12:37	< 20
Methyl alcohol [mg/L]	26-May-23	12:23	05-Jun-23	12:37	< 5
Acetone [ug/L]	23-May-23	17:07	26-May-23	10:56	< 1200
Benzene [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
Ethylbenzene [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
Dichloromethane [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
Methyl ethyl ketone [ug/L]	23-May-23	17:07	26-May-23	10:56	< 800
Toluene [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
Xylene (total) [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
o-xylene [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20
m/p-xylene [ug/L]	23-May-23	17:07	26-May-23	10:56	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003355322

<ul> <li>Station A</li> </ul>	Sampler Name:				Sept	Station Acronym		Email:	Fax:	Address:						(f
ronym: C	Name:				Sept	Station Number (Short Name)			net							110
ell - Cell				-		0.587		kyo	(519	NOI NOI	Rep		Ide	Atta	On	1
	Dav C				Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quole # Attached Parameter List	Facility Name Wiarton WWTP Org. # 5620	Waterworks/Project # 1100
	NESAR				11:15	Date & Time Collected		kyoung@ocwa.com	(519) 797-3080	18 Caroline Sireet Southampton, ON N0H 2L0			the sample(s) fall: No Requireme	No	WWTP	110000819
					8	# of Bottles		com		NO	ontact		nt to R	Yes		
	Samp				×	BOD <sub>5</sub>					PCT	Арр.	eport S			
	Sampler Signature:				×	Total Suspended Solids							ample			
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	a				×	Chemical Oxygen Demand		apwesinigniands@	(519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	Invoice To:		y Regi		Laboratory Section Date Rec'd:	C of C LIMS NO:
				11	×	Acetone		Jands	322	ON	Ontario		lation		ratory Sectic Date Rec'd:	MS N
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ļ	in the				×	Isopropyi Alcoho	1				Clean Water Agency		ler Tre	Temperature Upon Receipt	UN 1 0 2023	
	1				×	Methyl Alcohol			Н		ency	5-7d	eatmer	Receip	02	2
					×	Methylene Chloride							Ŧ	-	023	2
					×	Methyl Ethyl Ketone								5		10
1					×	Methylene Chloride	1	1						S	Time	200
					×	Toluene			11			7-10d			Samp Time Rec'd:	202
					×	Xylene	1		705	KOL	Lab	<b>1</b>		°C	1:	ŀ
THE OTHER PROPERTIES AND ADDRESS OF THE PROPERTY OF THE PROPER					<ol> <li>2 - 500 mL PET bollas,</li> <li>2 - 60 mL plastic w/ sulphuic acid preservative,</li> <li>2 - 40 mL EPA vials unpreserved (no headspace).</li> <li>3 - 40 mL EPA vials w/ sodium bisulphale preservative (no headspace)</li> </ol>		Comments	came.greeniaw@sgs.com	705-652-6365	185 Concession St. Lakefield, ON KOL 2HO	Laboralory: SGS Lakelield Research Ltd	Other Specify:			Sample condition upon receipt Rec'd: Initials	
		No	Yes	Yes	Yes X	Upload to MO	E				arch Ltd				Yun	
		No Ves				Upload to OCV	VA								3	

10:30



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

21-June-2023

Date Rec.: 10 June 2023 LR Report: CA12439-JUN23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holdin g Tank
Sample Date & Time					09-Jun-23 11:15
Temperature Upon Receipt [°C]					15.0
Biochemical Oxygen Demand (BOD5) [mg/L]	12-Jun-23	16:54	19-Jun-23	11:21	1940
Total Suspended Solids [mg/L]	14-Jun-23	10:15	15-Jun-23	15:11	385
Chemical Oxygen Demand [mg/L]	15-Jun-23	07:05	19-Jun-23	11:21	3100
Ammonia+Ammonium (N) [as N mg/L]	14-Jun-23	17:23	16-Jun-23	09:58	89.5
Total Kjeldahl Nitrogen [as N mg/L]	13-Jun-23	16:52	15-Jun-23	10:15	154
Phosphorus (total) [mg/L]	13-Jun-23	16:52	15-Jun-23	13:23	17.0
Isopropyl Alcohol [mg/L]	15-Jun-23	15:50	21-Jun-23	16:08	< 5
Methyl alcohol [mg/L]	15-Jun-23	15:50	21-Jun-23	16:08	< 5
Acetone [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 1200
Benzene [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20
Ethylbenzene [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20
Dichloromethane [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20
Methyl ethyl ketone [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 800
Toluene [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	72.9
Xylene (total) [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20
o-xylene [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20
m/p-xylene [ug/L]	12-Jun-23	20:31	13-Jun-23	18:42	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

000337465

pt Sept	Sept			Station Acronym Number (Short Name)		Email: Kyo	phone:	Address: 18 So N0	R		Ide	Att	0	() F	
>			Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List		a	Waterworks/Project # 110000819 C of C LIMS No:
Sampler Name: Davi Concore Sampler Signature: Say Cresed			12:00	Date & Time Collected JUL 1 0 2023		kyoung@ocwa.com	519-374-5782		an (PCT) Data Transfer Contact: PCT		sample(s) fall: No Requireme	No		/TP	)819
			8	# of Bottles		.com		ON	Contact		ent to R	Yes			
Sam			×	BOD <sub>5</sub>					PCT	App.	eport S				1
Sampler Signature:			×	Total Suspended Solids							Sample				ŀ
gnatur			×	Total Phosphorous	1	П					Resu				
ë			×	TKN	11					24-48 h	lts Und				
			×	Total Ammonia Nitrogen		apwe	(519	136 Shel	Invoi	4 8	der An	+		Labo	00
200			×	Chemical Oxygen Demand		apwesthighlands	(519) 925-1938 (519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	ce To:		y Regu		Date	Laboratory Section	C of C LIMS No:
1			× ·	Acetone	1		1938	ON THE	Onta		Ilation		Date Rec'd:	Sect	N SM
n			×	Benzene	Para	@ocwa.com			rio Cle	1	for W	empe		ion	0
10			×	Ethylbenzene	Parameters	a.com		4	an Wa	×	astewa	Temperature Upon		1	3
nes			×	Isopropyl Alcohol	S				Iter Ag		ter Tre		Ë	F	-
end			×	Methyl Alcohol	1		1		gency	5-7d	atmer	Receipt	1023	+	Ê
1			×	Methylene Chloride							=	~	μ		2
			×	Methyl Ethyl Ketone	1							6			1
			×	Methylene Chloride								X	Time		51
			×	Toluene		11				7-10d			Time Rec'd:	San	
			×	Xylene		can	705	185 KoL	Lab			°C	ľ	nple co	
		head	and share the second second			ie.gree	705-652-6365	185 Concessi Lakefield, ON KOL 2H0	orator	Other			1	onditio	
			<ul> <li>2 - 500 mL PET boltles.</li> <li>2 - 60 nL plastic w/ sulphuric acid</li> <li>preservative.</li> <li>and LEPA vials unpreserved</li> <li>and LEPA vials w/ sodium</li> <li>bisubpate preservative (no bisubpate preservative (no</li> </ul>		Comments	carrie.greenlaw@sgs.com	365	ON St.	Laboratory: SGS Lakefield Research Ltd	er Specify:			Initials	Sample condition upon receipt	
				Upload to MO	E				sh Ltd				R	4	
			res ∎⊠	Upload to OCV	VA										



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

26-July-2023

Date Rec.: 11 July 2023 LR Report: CA13405-JUL23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1:	2:	3:	4:	5:
	Analysis Start Date	Analysis Start Time	Analysis	Analysis	Sept
	Start Date	Start Time	Completed Date	Time	Sept-Septage-Hol ding Tank
Sample Date & Time					10-Jul-23 12:00
Temperature Upon Receipt [°C]					16.0
Biochemical Oxygen Demand (BOD5) [mg/L]	12-Jul-23	16:56	17-Jul-23	15:57	1290
Total Suspended Solids [mg/L]	14-Jul-23	10:38	17-Jul-23	13:15	129
Chemical Oxygen Demand [mg/L]	12-Jul-23	09:02	17-Jul-23	15:58	1600
Ammonia+Ammonium (N) [as N mg/L]	11-Jul-23	19:44	12-Jul-23	09:47	172
Total Kjeldahl Nitrogen [as N mg/L]	13-Jul-23	12:57	17-Jul-23	10:51	189
Phosphorus (total) [mg/L]	13-Jul-23	12:57	18-Jul-23	10:05	15.6
Isopropyl Alcohol [mg/L]	14-Jul-23	14:33	25-Jul-23	15:57	< 5
Methyl alcohol [mg/L]	14-Jul-23	14:33	25-Jul-23	15:57	< 5
Acetone [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 1200
Benzene [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
Ethylbenzene [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
Dichloromethane [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
Methyl ethyl ketone [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 800
Toluene [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
Xylene (total) [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
o-xylene [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20
m/p-xylene [ug/L]	12-Jul-23	15:31	14-Jul-23	10:38	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

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Revised: 2022.07.28

Revision #2

Station Acronym: Cell - Cell Contents, Dis - Deisnfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bra - Blocolids-raw studge, Bb - Blocolids thickening, Egd - Blocolids primary digestion, Bsd - Blocolids got appendix of the sec. digestion, Bra - Blocolids pri suppr. Bss - Blocolids sec super, Bsiq - Blocolids sell quality, Booq - Biosolids sell quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrE/. Primary Effluent, RAS - Return Activated Studge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TMAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Scpf - Septage, Left - Leachate, PTT - Primary Treatment, Rev - Re-etration, Tert - Tertiary Treatment, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Septage, Left - Leachate, PTT - Primary Treatment, Allo - Activater, Allo - Activated Sludge, IndW - Industrial Wastewater, PStn - Septage, Left - Leachate, PTT - Primary Treatment, Allo - Activater, Allo - Activater, Store 1

Sampler Signature:	Sampler Signature:
	Pal

(1)	(					Address:	Telephone:	Email:		Station Acronym	Sept						
145							)e:			Station Number (Short Name)	Sept						
Wa	Facility Org. #	Quote # Attachec	Ident	_	Repo	18 Caroli Southam NOH 2L0	519-	kyou		_							
Waterworks/Project # 110000819	Facility Name Wiarton WWTP Org. # 5620	Quote # Attached Parameter List	Identification of Regulation under which the sample(s) falt. No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Requested Turnaround Time:	Report to: Process & Compliance Technician (PCT)	18 Caroline Street Southampton, ON NDH 2L0	519-374-5782	kyoung@ocwa.com	Sample	Sample Location Name	Septage - Holding Tank				*		
0819	NTP	No	ie sample(s) fall: No Require		cian (PCT) Data Transfer Contact: PCT	11.1	519-374-5782	kyoung@dcwa.com		Date & Time Collected JUL 1 0 2023	12:00						
		Yes	ment t		er Con	n, ON	32	Wa.cor	11	# of Bottles	2000	-	-	-	-	-	-
		ŝ	to Rep		Itact: F				Н	Aluminum	N	-	-	-	-	-	
			ort Sa		CT					Arsenic	××		-	-	-	-	
			mple F						11	Barium	×		-				
			Results	App. Req'd				П	11	Cadmium	×			-			
			Unde	d'p					11	Calcium		-	-	-	-	-	
	Q., .		r Any						11	Chromium	××	-	-		-	-	-
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ofC	aborat	1.0	or Was	Щ	voice	136 Main St. E Shelburne, ON L9V 3K5	(519) 925-1938	apwesthighland	$\left\{ \right\}$	Copper	×		-		-		-
LIM	tory S te Rec		stewat		To: O	ne, Of	5-193	highlan	Para	Iron	×		-	-	-		-
C of C LIMS No:	ection	empe	er Tre		ntario	2 11	3 66	1ds@c	Parameters	Magnesium	××		-		_	_	-
CI	Laboratory Section	Temperature Upon	atmen	×	Invoice To: Ontario Clean Water			apwesthighlands@ocwa.com	60	Manganese	×	-		-	-		-
0			-		Water			m	11	Mercury	×			-	-	-	
5	1 2023	Receipt		5-7d	r Agency			П		Nickel	×						
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0		6				1.5		11	11	Selenium	×		1				1.0
5		16×3							11	Silver	×		10			24	100
	Time									Sodium	×		1-1	1			1
	Samı Time Rec'd:			7- 10d						Tin	×						
	ple co	റ്		1	Labo	185 Conc Lakefield, KOL 2H0	705-0	carrie	11	Zinc	×				_		
141	Sample condition upon receipt			Other Specify:	Laboratory: SGS Lakefield Research Ltd	185 Concession St. Lakefield, ON KOL 2H0	705-652-2000	carrie.greenlaw@sgs.com	Comments		1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury						
	SAVS		1		h Ltd				E	Upload to MO	No Tes	No	No Ves	Yes V	No No	Yes V	No
						-			VA	Upload to OCV		No	No	No Yes		No Yes	

Page 1 of 1



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

24-July-2023

Date Rec. : 11 July 2023 LR Report: CA13403-JUL23

0003410334

**Copy:** #1

### CERTIFICATE OF ANALYSIS Final Report

Analysis	1:	2:	3:	4:	5:
	Analysis Start Date	Analysis Start Time	Analysis Completed	Analysis Completed	Sept Sept-Septage-Holdin
	•••••	•••••	Date	Time	g Tank
Sample Date & Time					10-Jul-23 12:00
Temperature Upon Receipt [°C]					16.0
Mercury (total) [ug/L]	13-Jul-23	14:06	14-Jul-23	15:32	< 0.01
Aluminum (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.014
Arsenic (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	< 0.0002
Barium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.00552
Calcium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	8.72
Cadmium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.000006
Cobalt (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.000025
Chromium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.00008
Copper (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.0082
Iron (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.390
Potassium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	7.51
Magnesium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	3.12
Manganese (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.0107
Sodium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	34.8
Nickel (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.0004
Lead (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	< 0.00009
Selenium (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.00010
Tin (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	< 0.00006
Silver (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	< 0.00005
Zinc (total) [mg/L]	14-Jul-23	19:26	24-Jul-23	14:28	0.007

Sampler Name:							Sept	Station Acronym		Email:	Fax:	Tolonhor	Address:							(1)
Vame:							Sept	Station Number (Short Name)												110
										kyoun	(519)	NOH 2LO	18 Ca South	Repor	R	Identif	Quote # Attached	Org. #	Facil	Wate
DAN CHESAR							Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	(519) 797-3080	L0	18 Caroline Street Southampton, ON	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under which the sample(s) falt: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Attached Parameter List	# 5620	Facility Name Wiarton WWTP	Waterworks/Project # 110000819
SPID							10:45	Date . Colt AUG 1						ian (PCT)		e sample(s) fal	No	10	NTP	0819
-							5	Date & Time Collected AUG 1 6 2023		kyoung@ocwa.com	(519) 797-3080	NOH 2L0	18 Caroline Street Southampton, ON	Data Transfer Contact: PCT		I: No Requirem				
-							œ	# of Bottles		.com			ON	Contact:		ent to Re	Yes			
Sampl							×	BOD <sub>5</sub>						PCT	App.	eport S				
er Sigr							×	Total Suspended Solids								ample				
Sampler Signature:							×	Total Phosphorous								Result				
							×	TKN					_		24-48 h	s Unde				
2			-				×	Total Ammonia Nitrogen		apwesinigniands@ocwa.com	(519) 925-0322	L9V 3K5	136 Main St. E Shelburne, ON	Invoic	-	ar Any			Labo	Cof
Jan			1				×	Chemical Oxygen Demand		Ingini	925-03	125-10	136 Main St. E Shelburne, ON	e To:		Regult		Date I	Laboratory Section	C of C LIMS No:
4							×	Acetone		inas(a	22	22	žm	Ontani		ation fo	H	Date Rec'd:	Sectio	N SV
0							· ×	Benzene	Paran	ocwa.				Invoice To: Ontario Clean Water A		or Was	Temperature Upon		ă	!?
ð							×	Ethylbenzene	Parameters	COM				n Wate	×	tewat	ture L	AUG		1+1
Carrae							×	Isopropyl Alcoho	1					er Age		er Trea	pon R	E	0	0
1				_			×	Methyl Alcohol						gency	5-7d	atment	Receipt	2013		ſ
							×	Methylene Chloride										قن		-
							×	Methyl Ethyl Ketone									-			X
							×	Methylene Chloride							1		52	Time		X
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			1.3				×	Xylene		came	705-6	KOL 2HO	185 C	Labo	11		റ്	ľ	ple cor	Ĩ
				1			2 - 500 mL PET bottes. 2 - 60 mL plastic w/ sulphuric acid preservative, preservative, vials unpreserved 2 - 40 mL EFA vials w/ sodium 5.cu/phate preservative (no headspace)		Comments	came.greenlaw@sgs.com	705-652-6365	H0	185 Concession St. Lakefield, ON	Laboratory: SGS Lakefield Research Ltd	Other Specify:_			-	Sample condition upon receipt	
	1	No	No Tes	Nor Nor	No	Yes	m Ves	Upload to MO	E					esearch Ltd				Initials		
					No Yes	No CO		Upload to OCV	VA									P		
									~								-	11		



#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

#### 29-August-2023

Date Rec.: 17 August 2023 LR Report: CA12686-AUG23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holdi ng Tank
Sample Date & Time					16-Aug-23 10:45
Temperature Upon Receipt [°C]					18.0
Biochemical Oxygen Demand (BOD5) [mg/L]	18-Aug-23	13:17	23-Aug-23	13:23	358
Total Suspended Solids [mg/L]	19-Aug-23	12:35	21-Aug-23	14:54	128
Chemical Oxygen Demand [mg/L]	23-Aug-23	17:22	24-Aug-23	09:41	590
Ammonia+Ammonium (N) [as N mg/L]	18-Aug-23	18:49	22-Aug-23	10:23	142
Total Kjeldahl Nitrogen [as N mg/L]	18-Aug-23	15:57	23-Aug-23	13:12	184
Phosphorus (total) [mg/L]	18-Aug-23	15:57	24-Aug-23	14:24	14.3
Isopropyl Alcohol [mg/L]	24-Aug-23	12:32	28-Aug-23	09:53	< 5
Methyl alcohol [mg/L]	24-Aug-23	12:32	28-Aug-23	09:53	< 5
Acetone [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 1200
Benzene [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
Ethylbenzene [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
Dichloromethane [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
Methyl ethyl ketone [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 800
Toluene [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
Xylene (total) [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
o-xylene [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20
m/p-xylene [ug/L]	25-Aug-23	12:47	28-Aug-23	16:18	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

fation Acron	Sampler Name:	-					Sept	Station Acronym		Email:	Fax:	Address:							())
	ime:	-					Sept -	Station Number (Short Name)		X			-		-				
	DAN CAESAR						Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	(519) 797-3080	18 Caroline Street Southampton, ON NOH 2L0	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater	Attached Parameter List	Org. # 5620	Facility Name Wiarton WWTP	Waterworks/Project # 110000819
	БР П						10:00	Date & Time Collected SEP 1 9 2023		kyoung@ocwa.com	(519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON NOH 2L0			ie sample(s) fall: No Requireme	No		NTP	0819
							œ	# of Bottles		.com		ON	Contact		ent to R	Yes			
	Sampler Signature:	-					×	BOD <sub>5</sub>					PCT	App.	eport S				
	er Sign						×	Total Suspended Solids							ample				
	ature:						×	Total Phosphorous							Result				
-			-				×	TKN						24-48 h	s Unde				
0	20						×	Total Ammonia Nitrogen		apwes	(519) 9	136 Main St. E Shelburne, ON L9V 3K5	Invoic	-	er Any			Labo	COT
I	2						×	Chemical Oxygen Demand		thighla	(519) 925-1938 (519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	e To:		Regul		Date	ratory	C OF C LINIS NO:
ì	8				1		×	Acetone		ands@	122	Zm	Ontario		ation fo	T	Date Rec'd:	Laboratory Section	N SIN
ŀ							×	Benzene	Parameters	apwesthighlands@ocwa.com			Invoice To: Ontario Clean Water A		or Was	Temperature Upon Receipt		ă	
S	20	_	1		1	1	×	Ethylbenzene	eters	mox			Wate	×	tewate	ture U	SEP 2		OR
	2	_	-				×	Isopropyl Alcohol					r Agency			pon Re		-	C
	1001		1				×	Methyl Alcohol					cy	5-7d	reatment	ceipt	0 2023		_
	1					i.	×	Methylene Chloride								-			0
		-	-		-		× ×	Methyl Ethyl Ketone								X	-		+
		1	-				×	Methylene Chloride								N	Time Rec'd:		5
		_					×	Toluene						7-10d		1	Rec'd:	Samp	ľ,
							×	Xylene		carrie.	705-6:	185 Conc Lakefield, K0L 2H0	Labora			°C		le con	9
							<ul> <li>2 - 500 mL PET bottles,</li> <li>2 - 60 mL plastic w/ sulphunic acid preservative,</li> <li>2 - 40 mL EPA vials unpreserved (no neadspace),</li> <li>2 - 40 mL EPA vials w/ sodium bisulphate preservative (no neadspace)</li> </ul>		Comments	carrie.greenlaw@sgs.com	705-652-2000 705-652-6365	185 Concession St, Lakefield, ON K0L 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:			Initials	Sample condition upon receipt	
			No	No	No	No	No No	Upload to MOE					ch Ltd						
		No	No		No	No C	] Yes <b>X</b>	Upload to OCW	A										

10:00 ML



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

05-October-2023

Date Rec.: 20 September 2023 LR Report: CA13716-SEP23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1:	2:	3:	4:	5:
	Analysis Start Date	Analysis Start Time	Analysis Completed Date	Analysis Completed Time	Sept Sept-Septage-Holdi ng Tank
Sample Date & Time					19-Sep-23 10:00
Temperature Upon Receipt [°C]					15.0
Biochemical Oxygen Demand (BOD5) [mg/L]	21-Sep-23	17:45	26-Sep-23	11:56	2250
Total Suspended Solids [mg/L]	24-Sep-23	09:46	25-Sep-23	15:11	272
Chemical Oxygen Demand [mg/L]	21-Sep-23	08:13	26-Sep-23	11:56	2850
Ammonia+Ammonium (N) [as N mg/L]	21-Sep-23	17:23	25-Sep-23	13:11	78.3
Total Kjeldahl Nitrogen [as N mg/L]	21-Sep-23	13:20	26-Sep-23	14:45	140
Phosphorus (total) [mg/L]	21-Sep-23	13:20	25-Sep-23	15:21	13.6
Isopropyl Alcohol [mg/L]	26-Sep-23	08:55	05-Oct-23	15:27	11
Methyl alcohol [mg/L]	26-Sep-23	08:55	05-Oct-23	15:27	< 5
Acetone [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 1200
Benzene [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
Ethylbenzene [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
Dichloromethane [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
Methyl ethyl ketone [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 800
Toluene [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
Xylene (total) [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
o-xylene [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20
m/p-xylene [ug/L]	21-Sep-23	13:51	22-Sep-23	11:12	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003490765

SO

10:30

Revision #2 Revised: 2022.02.17

cligestion, Bsd - Biosolids sec, digestion, Bps - Biosolids per super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatalion, Grit - Primary Treatment/Grit, PET - Primary Treatment, PAS - Return Activated Studge, SBR - Secondary Treatment/SBRs, SeET - Secondary Effluent, TWAS - Thickned Waste Activated Studge, IndW - Industrial Wastewalor, PSIn - Pump Sin, Sept - Septage, Lcht - Leachale, PTT - Primary Treatment, RAA - Re-aetalion, Tort - Tertiary Treatment, Alto - Activity, Tetra Biosolids super, BSG - Combined Studge, SBR - Secondary Treatment, SBA - Biosolids Secondary Treatment, PSIn - Pump Sin, Sept - Septage, Lcht - Leachale, PTT - Primary Treatment, RAA - Re-aetalion, Tort - Tertiary Treatment, Alto - Activity, Tetra Biosolids, HotA - Holding Tark, CSO - Combined Sever Overflow, SSO - Santiary Sever Overflow

Impler				Sept	Station Acronym		Email:	Telephone: Fax:	Address:						5	(A)
Sampler Name:				Sept	Station Number (Short Name)			ie:								
							kyou	519-	18 C	Repo	<u>_</u>	Iden	Attached	Org. #	Fac	Wa
Onu				Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Tumaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	.# 5620	Facility Name Wiarton WWTP	Waterworks/Project #
0				ank	ame	ple				e Techn	8	er which t			on W	11000
TUSPO					0					ician (PC)		the sample	No		WTP	110000819
P				0	Colle T 1							e(s) fall	L			
				10:20	Date & Time V Collected 0CT 1 8 2023		kyoung@ocwa.com	(519) 797-3080	18 Caroline Street Southampton, ON NOH 2L0	Data Transfer Contact: PCT		: No Requirem		l		
				8	# of Bottles	1	.com		ON	Contact:		ent to Re	Yes			
Sampler Signature:				×	BOD <sub>5</sub>					PCT	App.	port S				
ler Sigr		- 1		×	Total Suspended Solids							ample				
nature:				×	Total Phosphorous							Result			2	
				×	TKN						24-48 h	s Unde	_		8	1
40				×	Total Ammonia Nitrogen	1	apwesthighlands@ocwa.com	(519) 925-1938	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Water Agency	7	er Any			Laboratory Section	Cof
24				×	Chemical Oxygen Demand		thighla	25-03	136 Main St. E Shelburne, ON L9V 3K5	To: (		Regula		Date Rec'd:	atory	C of C LIMS No:
				×	Acetone		nds@	22	žm	Ontario		ation fo	Te	Rec'd:	Sectio	IS NO
1				×	Benzene	Parameters	ocwa.o			Clear		or Was	Temperature U			ň
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23				×	Isopropyl Alcohol				1	r Ager	16.9	r Trea	pon Receipt			1-
			_	×	Methyl Alcohol					ncy	5-7d	Iment	eceipt	LUL	1-0 7072	4-13984
	Lahe I			×	Methylene Chloride						100	ĥ		c	S	138
				×	Methyl Ethyl Ketone								6	5		7
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				×	Toluene						7-10d		1	Time Rec'd:	Sam	
				×	Xylene		carrie	705-6	Lakefield KOL 2HO	Labo	1-1		°C	ľ	ple cor	
				2 - 500 mL Pi 2 - 60 mL pia: preservative, 2 - 40 mL EPe ( <i>no headspace</i> ) 2 - 40 mL EPe 2 - 40 mL EPe 2 - 40 mL EPe bisulphale pre <i>headspace</i> )			green	705-652-6365	185 Concessi Lakefield, ON KOL 2H0	ratory:	Other				dition	
				PET bottles, lastic w/ sulpheric acid iPA vials unpreserved ace), iPA vials w/ sodium preservative (no		Comments	carrie.greenlaw@sgs.com	85	185 Concession St. Lakefield, ON KOL 2HO	Laboratory: SGS Lakefield Research Ltd	r Specify:			Inilials	Sample condition upon receipt	
	No Yes	Ves			Upload to MO	E				rch Ltd						
		No No			Upload to OCW	/A										



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

#### 27-October-2023

Date Rec.: 19 October 2023 LR Report: CA13984-OCT23

Copy: #1

# CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: t Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Hold ing Tank
Sample Date & Time					18-Oct-23 10:20
Temperature Upon Receipt [°C]					16.0
Biochemical Oxygen Demand (BOD5) [mg/L]	20-Oct-23	14:53	25-Oct-23	14:39	2060
Total Suspended Solids [mg/L]	25-Oct-23	13:56	26-Oct-23	15:19	334
Chemical Oxygen Demand [mg/L]	20-Oct-23	09:06	25-Oct-23	14:39	3500
Ammonia+Ammonium (N) [as N mg/L]	23-Oct-23	21:03	25-Oct-23	11:38	72.7
Total Kjeldahl Nitrogen [as N mg/L]	20-Oct-23	12:35	25-Oct-23	11:52	124
Phosphorus (total) [mg/L]	20-Oct-23	12:35	24-Oct-23	13:21	14.5
Isopropyl Alcohol [mg/L]	23-Oct-23	12:12	26-Oct-23	16:17	24
Methyl alcohol [mg/L]	23-Oct-23	12:12	26-Oct-23	16:17	< 5
Acetone [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 1200
Benzene [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20
Ethylbenzene [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20
Dichloromethane [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20
Methyl ethyl ketone [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 800
Toluene [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	31.9
Xylene (total) [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20
o-xylene [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20
m/p-xylene [ug/L]	20-Oct-23	14:55	23-Oct-23	11:49	< 20

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

0003514289

10:30 HCRTN 608606071892

Revised: 2022.07.28

Revision #2

\* Station Acronym: Ceijl - Ceil Contents, Dis – Disknitection, Down-Downstream, Elf – Final Effluent, PiBy - Pinnary Bipasss, Raw - Raw Sewege, ScBy - Secondary Bipass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bih - Biosolids thickening, Bpd - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsk - Biosolids sec super, Bsk - Biosolids sed quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PEEr - Primary Effluent, RAS - Return Activated Studge, SBR - Secondary Fflavent/WAS - Thickened Waste Activated Studge, WAS - Waste Activated Studge, Indiv - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, P7tr - Primary Treatment, Rev - Re-arration, Tert - Tertiary Treatment, Allo - Activated Studge, Hold - Holdring Tank, CSO - Combined Severi Overflow, SSO - Sanhary Severi Overflow,

Sampler Name:							Sept	Station Acronym		Email:	Fax:	Telenhor	Address:						(	()
Name:					IJ		Sept	Station Number (Short Name)			10	Þ.								Clean Wa
				1	1	1	1.10	*		Kyou	(519)	NOH 2LO	18 0	Repo	77	Ident	Quote # Attached	Org. #	Fan	Wat
DAN CAESAR							Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	(519) 797-3080	Southampton, ON NOH 2L0 510 374 5782	18 Caroline Street	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time;	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	Quote # Attached Parameter List	INGINO	<b>4</b>	Waterworks/Project # 110000819
ABSAR							10:20	Octe & Time Collected OCT 1 8 2023	1	Kyou	(519	Southamp NOH 2L0				the sample(s) fall: No	No		WTP	00819
							0	ne 1 2023		Kyounglajocwa.com	(519) 797-3080	NOH 2L0 519-374-5782	<b>18 Caroline Street</b>	Data Transfer Conlact: PCT		Requirem				r cuar
							N	# of Bottles	1	1.0011	ľ	ON	reet	Conta		ent to	Yes			
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							×	Arsenic								Samp				on la
da la							×	Barium								ole Re				UNIV.
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Sampler Signature;							×	Calcium	1							Inder /				000
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4							×	Iron	1_	apmostiliquiatius(worma.com	(519) 925-0322	Shelburne, ON L9V 3K5 (519) 925-1938	136 Main St. E	Invoice To: Onlario Clean Water		Vasley		Date Rec'd: ULI 7	orator	C of C LIMS No:
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	-							-	+	to ye	705-652-6365	KOL 2H0	Conc	orator	Other		ľ	1	ondili	
							1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury		Comments	cante dinampa da com	3365 Solau@ene com	2000 VN	185 Concession St.	y: SGS Lakefield Resea	er Specify:				Sample condition upon receipt	
	No	No	No	No	No	No Yes		Upload to MC	DE					arch Ltd				Initials		
	No O		No Co		No	Yes	No No	Upload to OCV	NA											



#### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

#### 26-October-2023

Date Rec. : 19 October 2023 LR Report: CA13964-OCT23

**Copy:** #1

# CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Hol ding Tank
Sample Date & Time					18-Oct-23 10:20
Temperature Upon Receipt [°C]					16.0
Mercury (total) [ug/L]	24-Oct-23	10:17	26-Oct-23	12:29	< 0.01
Aluminum (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.210
Arsenic (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.0006
Barium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.0645
Calcium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	113
Cadmium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.000075
Cobalt (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.000299
Chromium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.00111
Copper (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.0561
Iron (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	4.62
Potassium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	55.6
Magnesium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	34.5
Manganese (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.125
Sodium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	346
Nickel (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.0036
Lead (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.00096
Selenium (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.00079
Tin (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.00070
Silver (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	< 0.00005
Zinc (total) [mg/L]	25-Oct-23	07:45	26-Oct-23	12:29	0.105

ey Anderan

Hawley Anderson, Hon.B.Sc Project Specialist, Environment, Health & Safety

Sampler Name:						Sept	Station Acronym		Email:	Fax:	Address						()
Name:						Sept	Station Number (Short Name)						_				
	-						-		kyoun	(519)	NOH 2L0	Repor	R	Identif	Quote # Attached	Org. #	Wate
						Septage - H	Sample Lo		kyoung@ocwa.com	519-374-3782 (519) 797-3080	18 Caroline Street Southampton, ON NOH 2L0	t to: Process &	Requested Turnaround Time:	ication of Regul	Quote # Attached Parameter List	Org. #	Waterworks/Project #
DAN C						Septage - Holding Tank	Sample Location Name	Sample				Report to: Process & Compliance Technician (PCT)	ound Time:	ation under whic	<u>z</u>	5620	1
AESAR						-	Noue				æ	hnician (PCT)		h the sample(s)	No		I TUUUUS IS
			a.			10:30	Date & Time Collected		kyoung@ocwa.com	(519) 797-3080	18 Caroline Street Southampton, ON NOH 2L0	Data Transfer Contact: PCT		Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment			
						00	# of Bottles		a.com	0	ON	Contact		ent to Re	Yes		
Samp						×	BOD <sub>5</sub>					PCT	Арр.	eport S	1.00		
ler Sig	*	Ă,				×	Total Suspended Solids	3						Sample			
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E	D	50				×	Chemical Oxygen Demand	1	apwesthighlands@ocwa.com	(519) 925-0322 (519) 925-0322	136 Main St. E Shelburne, ON L9V 3K5	Invoice To: Ontario Clean Wate		y Regu		Laboratory Section Date Rec'd:	COT C LINIS NO:
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And M	S	3	1			×	Isopropyl Alcoho					ter Age		ter Tre		10	6
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	ot	5				×	Methylene Chloride	1						1	211	Time	N
	00					×	Toluene				1		7-10d		Γ	Samp Time Rec'd:	1
	M	100		1		×	Xylene	1	came	705-	185 Conc Lakefield KOL 2HO	Labo			°C	t: co	
	hebtakehols.t				E.O.	<ul> <li>2 - 500 mL PET bottles,</li> <li>2 - 60 mL plastic w/ sulphuric acid preservative,</li> <li>40 mL EPA vials unpreserved (no headspeed).</li> <li>40 mL EPA vials w/ sodium bisulphate preservative (no headspace)</li> </ul>		Comments	carrie.greenlaw@sgs.com	705-652-6365	185 Concession St. Lakefield, ON K0L 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:			Sample condition upon receipt Initials	300
	Yes -	No	No	No	Yes	No Yes	Upload to MO	E				rch Ltd		1	Y	Ы	
			No Yes		No		Upload to OCW	VA									
				JUU													

HCRT 608626194641 NC 10:30



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf Works #: 110000819 Project : PO#017018

#### 20-November-2023

Date Rec.: 10 November 2023 LR Report: CA14360-NOV23

**Copy:** #1

## CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					09-Nov-23 10:30
Temperature Upon Receipt [°C]					13.0
Biochemical Oxygen Demand (BOD5) [mg/L]	13-Nov-23	16:58	20-Nov-23	09:55	1920
Total Suspended Solids [mg/L]	15-Nov-23	18:38	16-Nov-23	13:28	905
Chemical Oxygen Demand [mg/L]	13-Nov-23	09:58	20-Nov-23	09:55	3550
Ammonia+Ammonium (N) [as N mg/L]	14-Nov-23	18:27	15-Nov-23	13:23	45.4
Total Kjeldahl Nitrogen [as N mg/L]	13-Nov-23	15:21	15-Nov-23	10:55	109
Phosphorus (total) [mg/L]	13-Nov-23	15:21	16-Nov-23	14:29	14.8
Acetone [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 1200
Benzene [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20
Ethylbenzene [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20
Dichloromethane [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20
Methyl ethyl ketone [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 800
Toluene [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	188
Xylene (total) [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20
o-xylene [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20
m/p-xylene [ug/L]	13-Nov-23	13:03	14-Nov-23	09:58	< 20

Unable to complete Isopropyl Alcohol and Methyl alcohol analysis as sample containers broke in transit. Client was notified.

*Carrie Greenlaw* Project Specialist, Environment, Health & Safety

0003537805

Sampler Name:							Sept	Station Acronym		Email:	Telephone: Fax:	Address:						1	1
Name:							Sept	Station Number (Short Name)			le:								
	-	-					,			kyour	519-3 (519)	18 Carolir Southamp N0H 2L0	Repo	7	Identi	Quole # Attachec	Org. #	Faci	Wat
DAN CA							Septage - Holding Tank	Sample Location Name	Sample	kyoung@ocwa.com	519-374-5782 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Report to: Process & Compliance Technician (PCT)	Requested Turnaround Time:	Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater	Quole # Attached Parameter List		Facility Name Wiarton WWTP	Waterworks/Project # 110000819
AESAR						2	Oquis	Date & Time U 0 5 DEC, 2023		kyou	519-	18 Carolin Southam N0H 2L0			he sample(s) fall: No	No No		NTP	0819
							-1	023		kyoung@ocwa.com	519-3/4-5/82 (519) 797-3080	18 Caroline Street Southampton, ON N0H 2L0	Data Transfer Contact: PCT		Requirement	Y			
		-					œ	# of Bottles		13			ntact: F		to Rep	Yes			
Sampler Signature:						-	×	BOD <sub>5</sub>					CT	b App.	oort Sa				
r Signa		-	1				×	Total Suspended Solids						11	mple F				
ature:				-	_	12	×	Total Phosphorous						N	esults				
_		_		-	-		×	TKN Total Ammonia	1	1	60		15	24-48 h	Under			-	0
5					-		×	Nitrogen	-	owesth	19) 92	136 Main St. E Shelburne, ON L9V 3K5	voice		Any Re		D	aborat	ofC
an				-	-	-	×	Oxygen Demano Acetone	1	ghland	(519) 925-0322	e, ON	o: On		gulatio		ite Rec	Laboratory Section	C of C LIMS No:
N		-		1	-		×	Benzene	Pa	SCOOCY			ario Cl		n for V	Temp	d:	ction	No:
10							×	Ethylbenzene	Parameters	apwesthighlands@ocwa.com			invoice To: Ontario Clean Water	×	lastew	Temperalure Upc	Date Rec'd: DEC 0 6		Dec-
an							×	Isopropyl Alcoho		1						Upon			
246							×	Methyl Alcohol					Agency	5-7d	Treatment	on Receipt	2023		020
1							×	Methylene Chloride	1					2.	-	10			Ŭ
							×	Methyl Ethyl Ketone								×			
							×	Methylene Chloride								S	Time		
							×	Toluene						7-10d			Time Rec'd:	Samp	
					1		×	Xylene		came	705-6	Lakefield, KoL 2H0	Labor			°		le con	
							<ul> <li>2 - 500 mL PET bottles,</li> <li>2 - 60 mL plastic w/ sulphuric acid preservative,</li> <li>2 - 40 mL EPA vials unpreserved (n/ headspeco),</li> <li>40 nL EPA vials w/ sodium bisulphate preservative (no headspeco)</li> </ul>		Comments	came.greeniaw@sqs.com	705-652-6365	105 Concession St. Lakefield, ON KOL 2H0	Laboratory: SGS Lakefield Research Ltd	Other Specify:			Initials	Sample condition upon receipt	
		No	No	No	No	Yes	No No	Upload to MC	DE				rch Ltd						
		No	No	No	No		No X	Upload to OC	NA			19							

MV 51:01



### **OCWA-Grey Bruce (Wiarton WPCP)**

Attn : Karla Young

P.O. Box 760 Southampton, ON N0H 2L0, Canada

Phone: 519-797-2561 Fax:pdf

Works #: 110000819 **Project :** PO#017018

18-December-2023

Date Rec.: 06 December 2023 LR Report: CA13263-DEC23

Copy: #1

## CERTIFICATE OF ANALYSIS **Final Report**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: t Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holdi ng Tank
Sample Date & Time					05-Dec-23 09:15
Temperature Upon Receipt [°C]					10.0
Biochemical Oxygen Demand (BOD5) [mg/L]	12-Dec-23	16:25	18-Dec-23	11:39	1770
Total Suspended Solids [mg/L]	07-Dec-23	15:00	08-Dec-23	11:28	267
Chemical Oxygen Demand [mg/L]	07-Dec-23	08:05	12-Dec-23	12:13	2100
Ammonia+Ammonium (N) [as N mg/L]	13-Dec-23	18:00	14-Dec-23	13:44	40.9
Total Kjeldahl Nitrogen [as N mg/L]	07-Dec-23	15:46	11-Dec-23	12:05	78.6
Phosphorus (total) [mg/L]	07-Dec-23	15:46	13-Dec-23	10:03	9.6
Isopropyl Alcohol [mg/L]	07-Dec-23	06:59	12-Dec-23	09:19	15
Methyl alcohol [mg/L]	07-Dec-23	06:59	12-Dec-23	09:19	< 5
Acetone [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 1200
Benzene [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 20
Ethylbenzene [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 20
Dichloromethane [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 20
Methyl ethyl ketone [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 800
Toluene [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	153
Xylene (total) [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 100
o-xylene [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 100
m/p-xylene [ug/L]	08-Dec-23	13:02	12-Dec-23	17:05	< 100

"Isopropyl Alcohol and Methyl alcohol were analyzed using an unaccredited method".

Dau

Carrie Greenlaw Project Specialist, Environment, Health & Safety

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