ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

March 28, 2024

Ministry of the Environment, Conservation and Parks
3rd floor, 101 17th 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

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

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^3/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.

Table 1. Wiarton Wastewater Treatment System Overview

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 m^3/day
Number of Households	1,100

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^3)	Daily	Flow Meter
	BOD_5, TSS, TP, TKN	Bi-Weekly	External Analysis
Effluent	Flow (m^3)	Daily	Flow Meter
	$CBOD_5$, TSS, TKN, Total Ammonia Nitrogen (TAN), Total Phosphorus	Bi-Weekly	External Analysis
	E. Coli	Bi-Weekly	External Analysis
	pH, Temperature	Bi-Weekly	In-House & External Analysis
	Temperature	Bi-Weekly	In-House & External Analysis
	Un-ionized Ammonia (WSER)	Quarterly	External Analysis
Septage	Flow (m^3)	Daily	Flow Meter
	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[2a]	Daily	Online analyzers
	BOD, TSS, Alkalinity, Total Phosphorous[2a]	Bi-Weekly	External Analysis

[2a]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_5	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
$CBOD_5$	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
pH	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 Type	Minimum Frequency
BOD_5	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 alcohol, Methylene chloride, Methyl ethyl, ketone, Toluene, Xylene	Grab	Monthly
Metals: Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Tin, Zinc	Grab	Quarterly

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.

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

Effluent Parameter	Monthly Average Concentration (mg/L)[6a]	Monthly Average Waste Loading (kg/day)
$CBOD_5$	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
pH	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	

[6a] *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:

Table 7. 2023 Effluent Annual Average Concentrations and Removal Efficiencies

Parameter	Annual Average Concentration	Annual Average Removal Efficiency
$CBOD_5$	2.32	n/a
Total Suspended Solids	4.78	96.1%
Total Phosphorous	0.03	98.6%

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

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

2023	$CBOD_5$[8a]				Total Suspended Solids[8a]				Total Phosphorous[8a]				Total Ammonia Nitrogen (TAN)[8a]				*E. Coli*[8a]	
	Monthly Average (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)	**Monthly Average** (mg/L)	**Within Limits** (0.3 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (1.32 kg/day)	**Monthly Average** (mg/L)	**Within Limits** (Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (Nov 1 to Apr 1 - 13.2 kg/day & May 1 to Oct 31 – 26.4 kg/day)	**Mean Geometric Density** (cfu/100 mL)	**Within Limits** (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

[8a]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.

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

	Average	Minimum	Maximum
January	7.49	7.26	7.83
February	7.47	7.24	7.61
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

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)[10a]	Monthly Average Waste Loading (kg/day)[10b]
$CBOD_5$	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

[10a]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.

[10b]ECA 6045-ARDJS7 does not contain Waste Loading Objectives, only limits, which can be found in Table 6 of this report.

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 $CBOD_5$ 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 $CBOD_5$ 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 $CBOD_5$.

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.

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

2023	$CBOD_5$		Total Suspended Solids		Total Phosphorous		Total Ammonia Nitrogen (TAN)	
	Monthly Average[11a] (mg/L)	Within Objective (10 mg/L)	Monthly Average[11a] (mg/L)	Within Objective (10 mg/L)	Monthly Average[11a] (mg/L)	Within Objective (0.15 mg/L)	Monthly Average[11a] (mg/L)	Within Objective[11b]
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

[11a]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.

[11b]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^3 with an annual average daily flow of 1,533 m^3/day. Total effluent and annual average daily flows in 2023 were both higher in comparison to 2022 (453,418 m^3 and 1,246 m^3/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;

Table 12: Influent Characteristics

Parameter	Minimum	Average	Maximum
BOD_5 (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

In 2023, approximately 1,831 m^3 of septage was received by the Wiarton Wastewater Treatment System. This is lower than 2022 (2,467 m^3) and 2021 (2,110 m^3) volumes. ECA 6045-ARDJS7 requires monthly septage samples to be tested for BOD_5, Total Suspended Solids, Total Phosphorous, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen (TAN), Chemical Oxygen Demand, Organics and Metals (Quarterly). Biochemical Oxygen Demand (BOD_5), 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_5) [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^3 with an annual average daily flow of 1,515 m^3/day, which is 34.4% of the recommended rated capacity of 4,400 m^3/day. Total influent flows in 2023 have increased while the average daily flow has stayed steady in comparison to 2022 (528,904 m^3 and 1,503 m^3/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.

Table 14. Average Daily Raw Sewage Flows by Month for 2023

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

[14a]*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.

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 (3rd 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 can be found in Appendix B.

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^3 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.

Table 16. Total Volume of Septage Received in 2023

Month	Total Volume of Septage Received (m^3)
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

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^3) being discharged without receiving all of the required treatment was reported and one (1) overflow of raw sewage (total volume of 70 m^3) 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.

Table 17. Bypass Events

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

Table 18. Overflow Events

Date	Duration	Volume and Receiver	Disinfection Status and Reason	Impact of Event	Mitigation: Taken and Planned
	HH:MM	(m^3)			
2023/04/05 11:00 to 2023/04/05 11:15	00:15	70 Colpoy's Bay	• Untreated wastewater • Heavy Rains	n/a	• Samples taken • Media collection • Reported on April 5, 2023 to SAC, MECP and GBHU

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.

ONTARIO CLEAN WATER AGENCY
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Appendix A

Performance Assessment Report

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

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

5620 WIARTON WASTEWATER TREATMENT LAGOON 110000819

	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-->	<--Avg-->	<--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			0.00
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		4,400.00
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	0.00
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			0.00
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			0.00
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		4,400.00
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	0.00
Eff Flow: Count - Effluent m³/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			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
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	<	20.00
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			0.00
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																
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	0.00
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			0.00
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	0.00
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			0.00
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	24.00
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			0.00
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	0.00
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	0.00
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			0.00
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	0.50
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			0.00
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	0.00

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		< 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		< 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				

ONTARIO CLEAN WATER AGENCY
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Appendix B
Calibration Reports

CALIBRATION / VERIFICATION

3230B American Dr, Mississauga,
Ontario L4V 1B3. **Tel:** (905) 678-2882
Email: service@spdsales.com
Web Site: www.spdsales.com

Customer Name:	OCWA - Wiarton						
Plant Name and address:	Wiarton WTP - 897 Bayview St, Wiarton, ON. N0H 2T0						
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:**	Ryton	
As Left Status:	**Initial Condt**	**Serial #:**	**Transmitter:**	1603C0130678	**Sensor:**	1603440861	
Instrument Visual Inspection:		**Range:**	0-14 PH		**Output:**	4-20 mA	
Mechanical Inspection:	**OK**	**Tag Infomration:**	AIT-205				
Electrical Inspection:	**OK**	**Description:**	PH Analyzer				
As found Display information:	**OK**	**Process/Location Descrpition:**	MBBR - Wiarton				

Instrument Information:	
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**		
	Name / Type	**Serial No.**	**Due Date**
Calibrated Successfully	pH 4.00 Cat 2283449	Lot#A2045	Feb-26
	pH 7.00 Cat2283549	Lot #A2059	Mar-24
	pH 10.00 Cat2283649	Lot #A2341	Dec-23
	Technician Name	**Witness Name**	
	Vaibhav Patel	James Learn	
Calibration Result: **Pass**	**Date:** 26-May-23	**Date:**	26-May-23

CALIBRATION / VERIFICATION

3230B American Dr, Mississauga,
Ontario L4V 1B3. **Tel:** (905) 678-2882
Email: service@spdsales.com
Web Site: www.spdsales.com

Customer Name:	OCWA - Wiarton						
Plant Name and address:	Wiarton WTP - 897 Bayview St, Wiarton, ON. N0H 2T0						
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:**	HQ40d	**Sensor:**	LDO	
As Left Status:	**Initial Condt**	**Serial #:**	**Transmitter:**	210100038474	**Sensor:**	072062595291	
Instrument Visual Inspection:		**Range:**	Auto		**Output:**	NA	
Mechanical Inspection:	**OK**	**Tag Infomration:**	NA				
Electrical Inspection:	**OK**	**Description:**	Multiparameter Portable Meter				
As found Display information:	**OK**	**Process/Location Descrpition:**	MBBR				

Instrument Information:	
Range	Auto
Temperature:	22.5 Degree C
Offset	0
Slope	95.40%

Input		**mg/L**		**As Found**	**Deviation**	**As Left**	**Deviation**
Dissolved oxygen from Air	**Should be between 8 to10 mg/l**	**9.00**		8.48	-5.78%	8.58	-4.67%

Comments		**Test Equipment Used**			
		Name / Type		**Serial No.**	**Due Date**
The Dissolved Oxygen value in air depends on temperature, pressure and surrounding		Air Calibration			
weather conditions. The ideal value should be between 8-10 mg/l at room tempera-					
ture.					
		Technician Name		**Witness Name**	
		Vaibhav Patel		James Learn	
Within Specification:	**Yes**	**Date:**	26-May-23	**Date:**	26-May-23

CALIBRATION / VERIFICATION

3230B American Dr, Mississauga,
Ontario L4V 1B3. **Tel:** (905) 678-2882
Email: service@spdsales.com
Web Site: www.spdsales.com

Customer Name:	OCWA - Wiarton						
Plant Name and address:	Wiarton WTP - 897 Bayview St, Wiarton, ON. N0H 2T0						
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:**	LDO	
As Left Status:	**Initial Condt**	**Serial #:**	**Transmitter:**	1603C0130677	**Sensor:**	160630000026	
Instrument Visual Inspection:		**Range:**	Auto		**Output:**	4-20 mA	
Mechanical Inspection:	**OK**	**Tag Infomration:**	AIT-204				
Electrical Inspection:	**OK**	**Description:**	DO Analyzer				
As found Display information:	**OK**	**Process/Location Descrpition:**	MBBR				

Instrument Information:	
Range	Auto
Temperature:	27 Degree C
Offset	NA
Slope	72.00%

Input		**mg/L**		**As Found**	**Deviation**	**As Left**	**Deviation**
Dissolved oxygen from Air	**Should be between 8 to10 mg/l**	**9.00**		14.20	57.78%	13.50	50.00%

Comments	**Test Equipment Used**		
	Name / Type	**Serial No.**	**Due Date**
The Dissolved Oxygen value in air depends on temperature, pressure and surrounding	Air Calibration		
weather conditions. The ideal value should be between 8-10 mg/l at room tempera-			
ture.			
Need to keep eye on.	**Technician Name**	**Witness Name**	
	Vaibhav Patel	James Learn	
Within Specification: **Yes**	**Date:** 26-May-23	**Date:** 26-May-23	

CALIBRATION / VERIFICATION

3230B American Dr, Mississauga,
Ontario L4V 1B3. **Tel:** (905) 678-2882
Email: service@spdsales.com
Web Site: www.spdsales.com

Customer Name:	OCWA - Wiarton						
Plant Name and address:	Wiarton WTP - 897 Bayview St, Wiarton, ON. N0H 2T0						
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:**	LDO	
As Left Status:	**Initial Condt**	**Serial #:**	**Transmitter:**	1603C0130672	**Sensor:**	160630000021	
Instrument Visual Inspection:		**Range:**	Auto		**Output:**	4-20 mA	
Mechanical Inspection:	**OK**	**Tag Infomration:**	AIT-203				
Electrical Inspection:	**OK**	**Description:**	DO Analyzer				
As found Display information:	**OK**	**Process/Location Descrpition:**	MBBR				

Instrument Information:	
Range	Auto
Temperature:	27 Degree C
Offset	NA
Slope	0.52

Input		**mg/L**		**As Found**	**Deviation**	**As Left**	**Deviation**
Dissolved oxygen from Air	**Should be between 8 to10 mg/l**	**9.00**		16.80	86.67%	15.00	66.67%

Comments	**Test Equipment Used**		
	Name / Type	**Serial No.**	**Due Date**
The Dissolved Oxygen value in air depends on temperature, pressure and surrounding	Air Calibration		
weather conditions. The ideal value should be between 8-10 mg/l at room tempera-			
ture.			
Need to keep eye on.	**Technician Name**	**Witness Name**	
	Vaibhav Patel	James Learn	
Within Specification: **Yes**	**Date:** 26-May-23	**Date:** 26-May-23	

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

VERIFICATION REPORT - **KHRONE**
ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name:	OCWA- Grey Bruce Hub	Site/Plant Address:	Taylor Street, Wiarton,ON
Plant Name:	Wiarton -PS1		

Device Information		Service Information	
Make:	Khrone	Date:	May 31, 2023
Model:	IFC10D	Report No:	CO1461-2305-20
Order Code:	NA	Job No:	CO1461-2305
Serial No.:	A9911651		
Tag:	NA	**Flow Details**	
Job Location:	PS#1	Unit:	LPS
Asset ID:	165372	Flow Range:	0-200
		Current Output:	4-20 mA
Sensor Details		4 mA Set Point	0
Line size:	8 Inch	20 mA Set Point	200
GKL:	4.505		
Mounting:	Remote		

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	7942355	7942440
FLOW (L/S)	-0.11	-0.71

Maintenance Checklist			Remarks
Visual Inspection:	☑ OK	☐ NOT OK	
Electrical Inspection:	☑ OK	☐ NOT OK	
Sensor Installation:	☑ OK	☐ NOT OK	
Transmitter Installation:	☑ OK	☐ NOT OK	

Instrument Test Information and Results

Set-Point as Per Calibration KIT	Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)	Deviation (L/S)
0	0.00	4.00	0.02	4.03	-0.02
A	10.78	4.86	10.90	4.96	-0.12
B	21.57	5.73	21.70	5.79	-0.13
C	43.14	7.45	43.25	7.57	-0.11
D	107.84	12.63	108.80	12.71	-0.96

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrone	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Measurement Works within Specification.

Service Technician :	Viral Patel	Stamp/Signature	
Printed Date:	May 31, 2023		

End of Report

Version: 19-12

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

VERIFICATION REPORT - **KHRONE**
ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name:	OCWA- Grey Bruce Hub	Site/Plant Address:	Taylor Street, Wiarton,ON
Plant Name:	Wiarton -PS2		

Device Information	
Make:	Khrone
Model:	IFC10D
Order Code:	NA
Serial No.:	A9817181
Tag:	NA
Job Location:	PS#2
Asset ID:	165385

Sensor Details	
Line size:	10 Inch
GKL:	4.544
Mounting:	Remote

Service Information	
Date:	May 31, 2023
Report No:	CO1461-2305-21
Job No:	CO1461-2305

Flow Details	
Unit:	L/SEC
Flow Range:	0-250
Current Output:	4-20 mA
4 mA Set Point	0
20 mA Set Point	250

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	2732671	2732681
FLOW (L/S)	-0.39	-0.38

Maintenance Checklist			Remarks
Visual Inspection:	☑ OK	☐ NOT OK	
Electrical Inspection:	☑ OK	☐ NOT OK	
Sensor Installation:	☑ OK	☐ NOT OK	
Transmitter Installation:	☑ OK	☐ NOT OK	

Instrument Test Information and Results

Set-Point as Per Calibration KIT	Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)	Deviation (L/S)
0	0.00	4.00	0.05	4.06	-0.05
A	17.00	5.09	16.63	5.01	0.37
B	33.99	6.18	33.55	6.07	0.44
C	67.99	8.35	67.54	8.24	0.45
D	169.97	14.88	169.59	14.67	0.38

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrone	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Measurement Works within Specification.

Service Technician :	Viral Patel	Stamp/Signature	
Printed Date:	May 31, 2023		

End of Report

Version: 19-12

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

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

Verification information	
Operating time 2576d03h34m21s	**Date/time** 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		
Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9919000
Verification detailed results Verification ID 8

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

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

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

Verification information	
Operating time 2575d19h46m27s	**Date/time** 31.05.23 11:33
Verification ID 10	
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

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9819000
Verification detailed results Verification ID 10

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

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

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

Verification information	
Operating time 2576d13h22m59s	**Date/time** 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		
Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1EF119000
Verification detailed results Verification ID 8

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

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

VERIFICATION REPORT- PARSHALL FLUME
OPEN CHANNEL FLOW MEASUREMENT

Customer Name:	OCWA-Grey Bruce Hub	Site/Plant Address:	897 Bayview St
Plant Name:	STP		Wairton, ON

Device Information	
Make:	Milltronics
Model:	Multiranger Plus
Order Code:	N/A
Serial No.:	050W023466
Tag:	NA
Job Location:	Final Effluent Discharge

Service Information	
Date:	June 23, 2023
Report No:	CO1461-2305-25
Job No:	CO1461-2305

Flow Details	
Unit:	m3/h
Flow Range:	0-591.9 m3/h
Current Output:	4-20 mA
4 mA Set Point	0 m3/h
20 mA Set Point	591.9 m3/h

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	NA	NA
FLOW (m3/h)	25.55	25.51

Maintenance Checklist				Remarks
Visual Inspection:	☑	OK	☐ NOT OK	
Electrical Inspection:	☑	OK	☐ NOT OK	

Programming Parameter of Instrument

Parameter	Discription	Value	Parameter	Discription	Value
F0	Access Code	2.71828	P40	Parshall Flume	1.00
P1	Dimension Unit (cm)	2.000	P41	flow rate (per hr)	3.00
P2	Mode	5	P42	OCM exponent	1.50
P3	Empty Distance	50.38 cm	P43	Flume dimension	0
P4	Span	20 cm	P45	Maximum head	20 cm
P5	near blanking	30	P46	Maximum flow rate	591.9 m3/hr

Instrument Test Information and Results

Input (%)	Calculated Flow(m3/h)	Calculated Input (mA)	Flow on Panel Meter Display (m3/h)	UUT Measured Output (mA)	Deviation (%)
0	0.00	4.00	0.00	4.00	0.00
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:	Manufacturer	Model	Serial No:
Electrical Multimeter	Fluke	179	As per Provided

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Program parameters verified. Measurement works as per specification.

Service Technician :	Sanket Trada	Stamp/Signature	
Printed Date:	June 23, 2023		

End of Report

Version: 19-12

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Appendix C

Community Complaints

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Jan-11 00:00:00
End: 2023-Jan-12 00:00:00
Run Time: 2024-Mar-11 14:37:25

WIARTON WWTL Logbook

Entry Time	Label	Entry Text	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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Jan-24 00:00:00
End: 2023-Jan-25 00:00:00
Run Time: 2024-Mar-11 14:42:51

WIARTON WWTL 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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Apr-24 00:00:00
End: 2023-Apr-25 00:00:00
Run Time: 2024-Mar-11 14:43:38

WIARTON WWTL Logbook

Entry Time	Label	Entry Text	Operator	Created Time
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	Maintenance	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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Jun-30 00:00:00
End: 2023-Jul-01 00:00:00
Run Time: 2024-Mar-11 14:44:34

WIARTON WWTL 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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Jul-22 00:00:00
End: 2023-Jul-23 00:00:00
Run Time: 2024-Mar-11 14:45:47

WIARTON WWTL Logbook

Entry Time	Label	Entry Text	Operator	Created Time
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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Georgian Highlands Logbook Report

Start: 2023-Dec-28 00:00:00
End: 2023-Dec-29 00:00:00
Run Time: 2024-Mar-11 14:48:18

WIARTON WWTL Logbook

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

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Appendix D

Effluent By-Pass Reports

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 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	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(m^3)					
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	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
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
kyoung@ocwa.com
(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	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(m^3)					
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	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
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

EIncidentReport

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 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 70000 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately 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: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 15 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ 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?: ● Yes ○ 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?: ● Yes ○ 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?: ● Yes ○ 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?: ● Yes ○ 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?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● 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

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - OVERFLOW

Waterworks/Project # **110000819**	C of C LIMS No: APR-13177
Facility Name **Wiarton WWTP**	Laboratory Section
Org. # **5620**	Date Rec'd: APR 06 2023 Time Rec'd: ____ Sample condition upon receipt ____ Initials CA
Quote #	
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 10 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd   24-48 h [X]   [ ] 5-7d   [ ] 7-10d   [ ] Other   Specify:________

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield / London Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street N0H 2L0	185 Concession St., Lakefield, ON, K0L 2H0 657 Consortium Court, London, ON, N6E 2S8
Telephone:	519-374-5782	519-374-5782	(519) 797-2561	705-652-2000 / 519-672-4500
Fax:	(519) 797-3080	(519) 797-3080	(519) 797-3080	705-652-6365 / 519-672-0361
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com / angela.stott@sgs.com

Sample						Cl Residual (mg/L)			Paramaters												Comments		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Free	Total	Combined (mg/L)	BOD_5	Total Suspended Solids	Total Phosphorous	TKN										Upload to MOE	Upload to OCWA
CSO	CSO	-	HB3R Overflow (Grab)	2023/04/05 12:10					X	X	X	X										Yes [ ] No [X]	Yes [X] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

P# 60838615639 2

HCRTN SR. 10:30

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

13-April-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

OnLine LIMS

0003297351

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

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 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 22630 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of 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: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 60 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ 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?: ● Yes ○ 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 ○ 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?: ● Yes ○ 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?: ● Yes ○ 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?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Karla Young 06/30/2023 10:59:47 AM

Comments:

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

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (BYPASS) SR.

Waterworks/Project # **110000819**	C of C LIMS No: JUL-#. 13072
Facility Name **Wiarton WWTP**	Laboratory Section — Sample condition upon receipt
Org. # **5620**	Date Rec'd: JUL 05 2023 — Time Rec'd: ___ — Initials SR
Quote #	
Attached Parameter List ☐ No ☐ Yes	Temperature Upon Receipt 20 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd 24-48 h ☐   ☒ 5-7d   ☐ 7-10d   ☐ Other   Specify:________

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Cl Residual (mg/L)			Paramaters												Comments		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Free	Total	Combined (mg/L)			Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	Nitrite + Nitrate			Upload to MOE	Upload to OCWA
				JUNE 30 2023 HT																			
~~Eff~~	~~Eff~~	~~-~~	~~Effluent (Grab)~~	06:20	1								X								pH = — Temperature (C) = —	Yes ☐ No ☒	Yes ☐ No ☒
Eff	Eff	-	Effluent (Composite)	06:20	1						X	X		X	X	X	X	X	X			Yes ☐ No ☒	Yes ☐ No ☒
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐
																						Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	BILLY SHEARER	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:30

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

12-July-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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 Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003395148

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY, MONTHLY & WEEKLY)

Waterworks/Project #	**110000819**	C of C LIMS No:	JUL-13078
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt: ____
Org. #	**5620**	Date Rec'd:	JUL 0 5 2023 Time Rec'd: SR. Initials: ____
Quote # / Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	2 to 3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Cl Residual			Paramaters													Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Field Total (mg/L)	Field Free (mg/L)	Combined (mg/L)	Alkalinity	BOD_5	Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	pH (at 15°C ± 1°C)	Un-ionized Ammonia (WSER)				
Raw	Raw	-	Raw Sewage	JUL 0 4 2023 12:10	2				X	X	X	X			X							2 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
Aer	Aer	-	MBBR Effluent	12:00	2				X	X	X	X										2 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
Eff	Eff	-	Effluent (Grab)	12:20	1								X									1 – 250mL HDPE sterile bottle pH = 7.40 Temperature (C) = 20.5°C	Yes [X] No [ ]	Yes [X] No [ ]
~~Eff~~	~~Eff~~	~~-~~	~~Effluent (Composite)~~		~~3~~						X	X		X	X	X	X	X	X	X		3 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:30 6085272070 39

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

11-July-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

Date Rec. : 05 July 2023
LR Report: **CA13078-JUL23**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

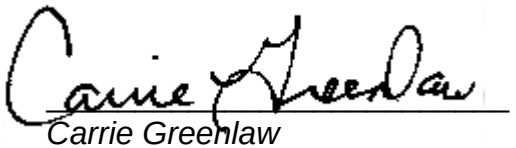
Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Client Limits May to Oct	7: Client Objectives May to Oct	9: Raw Raw-Raw Sewage	10: Aer Aer-MBBR Effluent	11: Eff Eff-Effluent (Grab)
Sample Date & Time							04-Jul-23 12:10	04-Jul-23 12:00	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

OnLine LIMS

0003394802

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 : **CA13078-JUL23**



Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003394802

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY, MONTHLY & WEEKLY)

Waterworks/Project # **110000819**	C of C LIMS No: JUL – 13202
Facility Name **Wiarton WWTP**	Laboratory Section — Sample condition upon receipt:
Org. # **5620**	Date Rec'd: JUL 0 6 2023 — Time Rec'd: ____ — Initials:
Quote # / Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 25X3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd — 24-48 h [ ] — [X] — 5-7d [ ] — 7-10d [ ] — Other — Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						CI Residual			Paramaters														Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JUL 0 5 2023	# of Bottles	Field Total (mg/L)	Field Free (mg/L)	Combined (mg/L)	Alkalinity	BOD_5	Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	pH (at 15°C ± 1°C)	Un-ionized Ammonia (WSER)				
~~Raw~~	~~Raw~~	-	~~Raw Sewage~~		~~2~~				~~X~~	~~X~~	~~X~~	~~X~~			~~X~~							2 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
~~Aer~~	~~Aer~~	-	~~MBBR Effluent~~		~~2~~				~~X~~	~~X~~	~~X~~	~~X~~										2 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
~~Eff~~	~~Eff~~	-	~~Effluent (Grab)~~		~~1~~								~~X~~									1 – 250mL HDPE sterile bottle pH = _____ Temperature (C) = _____	Yes [X] No [ ]	Yes [X] No [ ]
Eff	Eff	-	Effluent (Composite)	09:30	3						X	X		X	X	X	X	X	X	X		3 - 500 mL PET bottles; no preservative	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

ATW 608487680589
10:00
pe

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

14-July-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

OnLine LIMS

0003400273

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.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(m^3)					
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	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
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
kyoung@ocwa.com
(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 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.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(m^3)					
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	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
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
kyoung@ocwa.com
(519) 374 - 5782

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Appendix E

Septage Laboratory Results

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:	Jan-13098
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: JAN 0 5 2023	Time Rec'd: Initials
Quote # / Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	11X3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JAN 0 4 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	✓ 13:30	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Dan Caesar	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actillo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Recieved Metals and Mercury bottles

BZ 1030

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project # 110000819	C of C LIMS No: Dan - 13098
Facility Name Wiarton WWTP	Laboratory Section — Sample condition upon receipt
Org. # 5620	Date Rec'd: JAN 0 5 2023 — Time Rec'd: — Initials
Quote #	Temperature Upon Receipt 11X3 °C
Attached Parameter List [ ] No [ ] Yes	
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																			Comments		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc		Upload to MOE	Upload to OCWA
Sept	Sept	-	Septage - Holding Tank	JAN 0 4 2023 13:30 ✓	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for	Yes [X] No [ ]	Yes [X] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Bo 1030

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

20-January-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

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					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

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-Holding 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

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

OnLine LIMS

0003201526

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: Feb-13553
Facility Name Wiarton WWTP	Laboratory Section — Sample condition upon receipt
Org. # 5620	Date Rec'd: FEB 16 2023 Time Rec'd: Initials
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 6 x 3 °C
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected FEB 15 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	09:50	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bseq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

puro. SR

10:00

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

03-March-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

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					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

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

OnLine LIMS

0003251107

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:	MAR-13613
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt:
Org. #	**5620**	Date Rec'd: MAR 15 2023	Time Rec'd: ____ Initials: CA
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	8 & 3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ X 5-7d ☐ 7-10d ☐ Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected MAR 14 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	09:10	8	X	X	(X) DG	(X)	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No ☐	Yes [X] No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Actllo - Actillo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

2x Bisulfate vial
2x None vial

945 ✓

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

27-March-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

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					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

OnLine LIMS

0003278255

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:	APR13655
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt
Org. #	**5620**	Date Rec'd: APR 19 2023	Time Rec'd: ____ Initials:
Quote #			
Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	12°X3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ X 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	2023/04/18 12:25	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Allo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:00 AM

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

01-May-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

Date Rec. : 19 April 2023
LR Report: **CA13655-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-Holding 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

OnLine LIMS

0003318161

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project #	110000819	C of C LIMS No:	AK13634
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: APR 19 2023	Time Rec'd: ___ Initials ___
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	12°X3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd ☐ 24-48 h ☐ ☒ 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																				Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected 2023/04/18	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank	12:25	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury	Yes ☒ No ☐	Yes ☒ No ☐
		-																									Yes ☐ No ☐	Yes ☐ No ☐
		-																									Yes ☐ No ☐	Yes ☐ No ☐
																											Yes ☐ No ☐	Yes ☐ No ☐
																											Yes ☐ No ☐	Yes ☐ No ☐
																											Yes ☐ No ☐	Yes ☐ No ☐
																											Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Atlo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:00

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

28-April-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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-Holding 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

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

OnLine LIMS

0003316277

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: May 1216
Facility Name Wiarton WWTP	Laboratory Section CM
Org. # 5620	Date Rec'd: MAY 17 2023 Time Rec'd: ____ Sample condition upon receipt ____ Initials ____
Quote #	Temperature Upon Receipt 13x3 °C
Attached Parameter List [ ] No [ ] Yes	

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: ____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																	Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected MAY 16 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	10:30	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name: DAN CAESAR Sampler Signature: Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Afio - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

AB 10:30 6084876032 68 RN

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

05-June-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003355322

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:	JM- 12439
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt
Org. #	**5620**	Date Rec'd: JUN 1 0 2023	Time Rec'd: ___ Initials KM
Quote # / Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	15x3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	2023/06/09 11:15	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

KM 10:30

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

21-June-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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-Holding 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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003374651

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: JUL13405
Facility Name **Wiarton WWTP**	Laboratory Section — Sample condition upon receipt
Org. # **5620**	Date Rec'd: JUL 11 2023 — Time Rec'd: ____ — Initials AB
Quote #	
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 16.3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JUL 10 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	12:00	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Dan Caesar	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

607690095791
Km 10:30
KM

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

26-July-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

Date Rec. : 11 July 2023
LR Report: **CA13405-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: Sept Sept-Septage-Holding 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".

OnLine LIMS

0003412062

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project # **110000819**	C of C LIMS No: JOL-134023
Facility Name **Wiarton WWTP**	Laboratory Section Date Rec'd: JUL 1 1 2023 Time Rec'd: ___ Sample condition upon receipt Initials AJS
Org. # **5620**	
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 16 x 3 °C
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	

Requested Turnaround Time: App. Req'd [ ] 24-48 h [X] 5-7d [ ] 7-10d [ ] Other Specify:_____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																			Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank	JUL 1 0 2023 12:00	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury	Yes [X] No [ ]	Yes [X] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

1h 10:30

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

24-July-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

Date Rec. : 11 July 2023
LR Report: **CA13403-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: Sept Sept-Septage-Holding 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

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:	A09 12686 M
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt
Org. #	**5620**	Date Rec'd: AUG 17 2023	Time Rec'd: ____ Initials
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	18.3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ | ☒ 5-7d ☐ | 7-10d ☐ | Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected AUG 16 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	10:45	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Afio - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

9:30

HCRtn 608566876397

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

29-August-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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-Holding 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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

00034482290

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: Sep 13716 M
Facility Name **Wiarton WWTP**	Laboratory Section — Sample condition upon receipt:
Org. # **5620**	Date Rec'd: SEP 2 0 2023 — Time Rec'd: — Initials:
Quote #	
Attached Parameter List ☐ No ☐ Yes	Temperature Upon Receipt 15° X 3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ X 5-7d ☐ 7-10d ☐ Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	SEP 19 2023 10:00	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:00 M

608566861373, Rtn

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

05-October-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

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					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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003490765

Waterworks/Project #	110000819	C of C LIMS No:	Oct-139841
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: OCT 19 2023	Time Rec'd: Initials
Quote #		Temperature Upon Receipt	16 x 3 °C
Attached Parameter List	[ ] No [ ] Yes		

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected OCT 18 2023	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	10:20	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Dan Caesar	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSta - Pump Stn, Sept - Septage, Lchl - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:30

DS

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

27-October-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding 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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003514289

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project #	110000819
Facility Name	Wiarton WWTP
Org. #	5620
Quote #	
Attached Parameter List	☐ No ☐ Yes
C of C LIMS No:	Oct-13964
Laboratory Section Date Rec'd:	OCT 19 2023
Time Rec'd:	
Sample condition upon receipt	
Initials	
Temperature Upon Receipt	16+3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req'd ☐ 24-48 h ☒ 5-7d ☐ 7-10d ☐ Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																			Comments		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc		Upload to MOE	Upload to OCWA
Sept	Sept	-	Septage - Holding Tank	OCT 18 2023 10:20	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for Mercury	Yes ☒ No ☐	Yes ☒ No ☐
		-																								Yes ☐ No ☐	Yes ☐ No ☐
		-																								Yes ☐ No ☐	Yes ☐ No ☐
																										Yes ☐ No ☐	Yes ☐ No ☐
																										Yes ☐ No ☐	Yes ☐ No ☐
																										Yes ☐ No ☐	Yes ☐ No ☐
																										Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:30 HCRTN 608606071892

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

26-October-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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-Holding 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

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

OnLine LIMS

0003513764

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:	NOV T3524 14360
Facility Name	**Wiarton WWTP**	Laboratory Section	Sample condition upon receipt
Org. #	**5620**	Date Rec'd: NOV 10 2023	Time Rec'd: ____ Initials
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	13, 13, 14 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ ☒ 5-7d ☐ 7-10d ☐ Other Specify:

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	NOVEMBER 9/2023 10:30	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
							* Both NC vials broke in transit. CA																Yes ☐ No ☐	Yes ☐ No ☐
							*Client notified that we are unable to complete alcohols. HH																Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

HCRT 608626194641

AC 10:30

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

20-November-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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

OnLine LIMS

0003537805

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:	Dec-13263
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: DEC 0 6 2023	Time Rec'd: ____ Initials ____
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	10 x 3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h ☐ X 5-7d ☐ 7-10d ☐ Other Specify:____

	Report to: Process & Compliance Technician (PCT)	Data Transfer Contact: PCT	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	kyoung@ocwa.com	kyoung@ocwa.com	upwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected ✓	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	05 DEC. 2023 09:15	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 2 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

10:15

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

18-December-2023

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

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

Phone: 519-797-2561
Fax:pdf

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: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding 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".

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0003567049