



Town of Latchford

LATCHFORD ANNUAL SEWAGE TREATMENT REPORT 2024

Annual Compliance Report 2024

Prepared By: Rico Guindon

rguindon@latchford.ca

Feb 10, 2025

Table of Contents

EXECUTIVE SUMMARY.....	3
1.0 Facility Description.....	4
2.0 Monitoring Program.....	5
2.1 Monitoring Program Outlined in Provincial Officer Order No. 5744-9YMKWN.....	5
2.1.1 Raw Sewage Monitoring (Influent).....(Jan 1,2024 to Sept 6,2024).....	5
2.1.2 Final Effluent Monitoring.....(Jan 1,2024 to Sept 6,2024).....	5
2.1.3 Monitoring Program Outlined in new ECA No. 4756-D6UQ6Q (Sept 6,2024 to Dec 31,2024).....	6
2.2.0 Summary of Effluent Flow.....	6
2.2.1 Raw Sewage data (Influent).....	7
2.2.2 Effluent data.....	8
2.3 Sewage Treatment Program Success and Adequacy	9
2.3.1 Performance Summary.....	9
3.0 Operating Problems and Corrective Actions.....	9
4.0 Maintenance Procedures Performed on the Works.....	10
5.0 Effluent Quality Assurance and Control Measures	10
6.0 Calibration and Maintenance of all Monitoring Equipment.....	11
6.1 Calibration Summary.....	11
7.0 Efforts Made to Meet Effluent Limits.....	12
8.0 Sludge Generation and Disposal.....	13
9.0 Complaints.....	13
10.0 Bypass, Spill and Abnormal Discharges.....	13

Appendix A – Monthly Process Data Report

Appendix B – Annual Sludge Sample Results

EXECUTIVE SUMMARY

The Latchford Water Pollution Control Plant (WPCP) was granted an Environmental Compliance Approval (ECA) #1-0140-68-742646 on Oct 16, 1972 for the construction of an extended aeration package sewage treatment plant, the Latchford lift station and a number of sanitary sewers to serve the community of Latchford.

The Ministry of the environment issued a Provincial Officer's Order No. 5744-9YMKWN on July 22, 2015 which required the owner of the system to prepare and submit a performance report to the Ministry's District Manager on an annual basis within 90 days following the end of the period being reported upon.

The Ministry of the environment issued a new Amended Environmental Compliance Approval No. 4756-D6UQ6Q on September 6, 2024. The new ECA requires changes from monthly sampling to weekly sampling, with additional sampling parameters and compliance limits. The new ECA also incorporates the new Ultra Violet Disinfection System which was installed and completed and commissioned in Aug 2024.

The 2024 Annual Performance Report was prepared by the ORO of the Latchford STP on behalf of the Town of Latchford and is based on information kept on record by the town. The report has been completed in accordance with item 5(4) of the order and contains the following information:

- A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Item 2, including an overview of the success and adequacy of the works;
- A description of any operating problems encountered and corrective actions taken;
- A summary of any effluent quality assurance or control measures undertaken in the reporting period;
- A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the works;
- A summary of any effluent quality assurance or control measures undertaken in the reporting period;
- A summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- A tabulation of the volume of sludge generated in the reporting period, 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.

The Latchford sewage treatment facility produced high quality effluent throughout the reporting period meeting the compliance limits specified in the ministry's Provincial Officer's Order. All requirements specified under Item 3 of the Order and any issues experienced at the facility are further explained throughout the report.

Name of Sewage Plant:	Latchford Water Pollution Control Plant
Address:	Lot 17, Concession 1, Latchford
MOE Works Number:	110001774
ECA Number:	1-0140-68-742646 (issued October 16, 1972)
Provincial Officer's Order:	5744-9YMKWN (issued July 22, 2015)
Amended ECA Number:	4756-D6UQ6Q (issued September 6, 2024)
Plant Capacity:	340.5 m ³ /day
Report Period:	January 1, 2024 to December 31, 2024

1.0 Facility Description

The Latchford Water Pollution Control Plant (WPCP) is A Class 2 wastewater treatment facility that is owned and operated by the Corporation of the Town of Latchford. The treatment facility is located on 1 McLeod Avenue approximately 50 meters west of Highway 11.

The Latchford WPCP is an extended aeration facility which is rated for treating 75,000 imperial gallons per day (IGPD) or 341 m³/day. It is equipped with twin grit channels for removing large debris, one 304,000 IGPD comminutor, a 73,000 IG aeration section, one 15,700 IG settling tank, one 2,440 IG sludge holding tank and one 1,585 IG chlorine contact tank. A V-notch weir is in place to measure sewage effluent. The treated effluent discharges into the Montreal River through a 21-inch outfall.

POO # 5744-9YMKWN (July 22, 2015 to Sept 6, 2024)

Seasonal disinfection is set to occur May to October of each year, as per the ECA. However, a directive from the MOE encourages disinfection to begin mid-June in order to help protect the fish spawning season. The chlorination period is June 15th to September 30th.

Amended ECA No. 4756-D6UQ6Q (Issued Sept 6, 2024)

A new Ultra Violet Disinfection System was added between the Sewage Treatment plant Effluent Weir and the 21-inch outfall to the Montreal River. The Sodium Hypo addition was discontinued and removed from service. The Ultra Violet System provides disinfection year-round.

. Bypasses that occur are disinfected, tested, monitored and reported to the Spills Action Center (SAC). Bypass Disinfection is achieved using sodium hypochlorite.

2.0 Monitoring Program as Outlined in Provincial Officer Order No. 5744-9YMKWN (Jan 1, 2024 to Sept 6, 2024)

BOD₅ ≡ Five-day biochemical oxygen demand measured in an unfiltered sample
TSS ≡ Total Suspended Solids
TP ≡ Total Phosphorus
TAN (NH₃⁻ + NH₄) N ≡ Nitrogen as Ammonium and Ammonia (Total Ammonia Nitrogen)
TRC ≡ Total Residual Chlorine
E.coli ≡ Escherichia coli
pH = Potential of Hydrogen

2.1.1 Raw Sewage (Influent) (Jan 1, 2024 to Sept 6, 2024)

Parameter	Type of Sample	Minimum Frequency
BOD ₅	8 hour composite	monthly
TSS	8 hour composite	monthly
TP	8 hour composite	monthly

2.1.2 Final Effluent (Jan 1, 2024 to Sept 6, 2024)

Parameter	Type of Sample	Minimum Frequency
BOD ₅	24 hour composite	monthly
TSS	24 hour composite	bi-weekly
TP	24 hour composite	monthly
Total Ammonia Nitrogen (TAN)	24 hour composite	monthly
pH	24 hour composite	monthly
<i>E. coli</i>	24 hour composite	bi-weekly*
TCR	grab	daily**

*During the chlorination period

**Except weekends and statutory holidays during chlorination

2.1.3 Monitoring Program as Outlined in ECA No. 4756-D6UQ6Q (Sept 6, 2024 to Present)

Influent Sampling

Parameters	Sample type	Minimum Frequency
BOD5	8 hour composite	Weekly
Total Suspended Solids	8 hour composite	Weekly
Total Phosphorus	8 hour composite	Weekly
Total Kjeldahl Nitrogen	8 hour composite	Weekly

Effluent Sampling

Parameters	Sample type	Minimum Frequency
CBOD5	8 hour composite	Weekly
Total Suspended Solids	8 hour composite	Weekly
Total Phosphorus	8 hour composite	Weekly
Total Ammonia Nitrogen	8 hour composite	Weekly
Total Kjeldahl Nitrogen	8 hour composite	Weekly
E. coli	Grab	Weekly
Ph	Grab	Weekly
Temperature*	Grab	Weekly
Un-ionized Ammonia***	As Calculated	Weekly

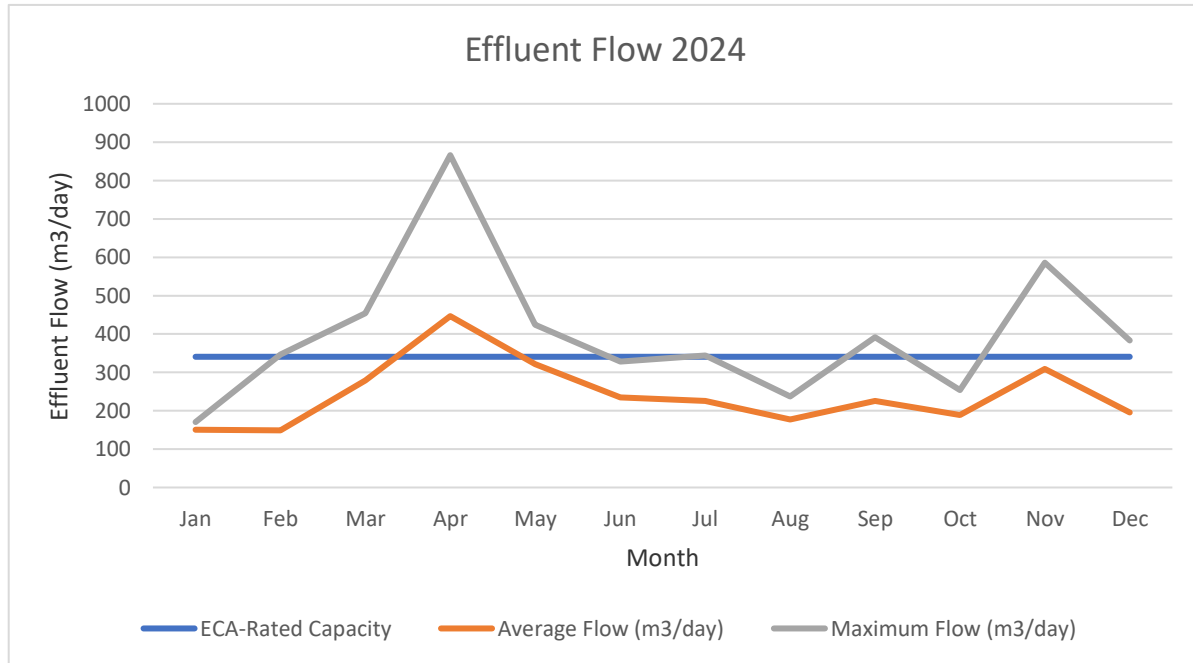
*Ph and temperature of the Final Effluent shall be determined in the field at the time of sampling for Total Ammonium Nitrogen.

***The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, ph and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended.

2.2.0 Summary of Effluent Flow

Month	Average Flow (m ³ /day)	Maximum Flow (m ³ /day)	Total (m ³)
January	151	171	4679
February	149	347	4308
March	279	454	8636
April	447	866	13416
May	322	424	9974
June	235	328	7044
July	226	344	7006
August	177	237	5477
September	226	392	6758
October	189	254	5848
November	309	586	9258
December	196	383	6089

2024 Total Flow	88,493 m ³
2024 Max Daily Flow:	866 m ³ /day
2024 Average Daily Flow:	242 m ³ /day
Design Capacity	341 m ³ /day
% of Design Capacity:	70.9 %



The Latchford Sewage Treatment System operated within its required capacity throughout 2024. Compliance is achieved when the annual average daily flow does not exceed 341 m³/day. The average daily flow for 2024 was 242 m³/day which represents 70.9% of the design capacity. The maximum flow occurred in April when heavy precipitation and snow melt contributed to a maximum flow of 866 m³/day.

2.2.1 Raw Sewage data (Influent)

A summary of the annual average and maximum influent parameter concentrations are listed below. A Process Data Report is presented in Appendix A which provides a monthly summary of the 2024 influent data.

Parameter (mg/L)	Annual Minimum	Annual Maximum	Annual Average
BOD ₅	1	120.0	37.3
TSS	0	114	41.5
TP	0.186	2.99	1.36
TKN	9.9	19	13.0

2.2.2 Effluent data

In 2024, the Latchford wastewater treatment system produced high quality effluent which surpassed the effluent design limits. Annual summaries of the final effluent parameter concentrations are presented below. Refer to Appendix A for the Monthly Process Data Report which summarizes the effluent data for the reporting period.

Effluent Data (Jan 1,2024 to Sept 6,2024)

Parameter (mg/L)	Annual Minimum	Annual Maximum	Annual Average	Compliance
BOD ₅	0.7	4.4	1.83	25 (annual average)
Total Suspended Solids	<1	19	4.54	25 (annual average)
Total Phosphorus	0.047	0.406	0.108	1.0 (annual average)
Total Ammonia Nitrogen	0.01	0.92	0.180	N/A
pH (units)	7.03	7.75	7.53	Between 6.0 and 9.5
<i>E. coli</i>	8800	39,600	23,600	N/A
TCR	0	0.07	0.031	N/A
CBOD5	1	1.8	1.25	N/A

"<" means values include results that were less than the laboratory's method detection limit

Effluent Data (Sept 6 to Dec 31,2024)

Parameter (mg/L)	Annual Minimum	Annual Maximum	Annual Average	Compliance
Total Suspended Solids	<1	49	7.33	25 (monthly ave.)
Total Phosphorus	0.026	0.398	0.190	1.0 (monthly ave.)
Total Ammonia Nitrogen	0	6.41	0.431	2.0/3.0 (monthly ave.)
pH (units)	7.42	7.80	7.55	Between 6.0 and 9.5
<i>E. coli</i>	1	1620	9.77	>200 (monthly ave.)
Temp C	5.6	15.3	10.72	N/A
CBOD5	0	7.1	1.31	25 (monthly ave.)
Total Kjeldahl Nitrogen TKN	1.20	11.1	3.06	N/A
Un-ionized Ammonia	<0.002	0.052	<0.002	N/A

"<" means values include results that were less than the laboratory's method detection limit

2.3 Sewage Treatment Program Success and Adequacy

Table 2.3.1 *Performance Summary* presents the system's efficiency through pollutant removal rates from raw sewage concentrations through to final effluent for BOD₅, suspended solids and total phosphorus.

2.3.1 Performance Summary

Parameter (mg/L)	Influent (annual average)	Effluent (annual average)	% Removal
BOD ₅	37.3	1.73	95.4%
TSS	41.5	5.47	86.8%
TP	1.36	0.142	89.6%
TKN	13.0	0.306	97.6%

"<" means values include results that were less than the laboratory's method detection limit

As indicated by the effluent concentrations and performance summary, the Latchford WPCP continues to experience a high degree of removal efficiency, and as a result, is operating well within the Ministry limits.

3.0 Operating Problems and Corrective Actions

- Jan 9 2024 – Return solenoid failed. – Replaced with new, repaired.
- Jan 23 2024 – Effluent auto sampler failed – Replaced controller (used new controller that was purchased for the SPS sampler install.) required for compliance.
- Feb 13 2024 – U.V. System SCADA programming – new alarms and trends set up.
- We have built a new sampler shack at the SPS, and assembled a new refrigerated sampler for raw composite sample. This is required with the new ECA
- June 19 2024 – Formal commissioning of the new Ultra violet disinfection system.
- Aug 2024 – Purchased new auto sampler controller for the SPS raw sampler station. Finalized installation – ready to go. (approx. \$10,000.00 to set up sampler station)
- Aug 2024 – Purchased new PH/Temp analyzer for sewage tests (required for new ECA)
- Sept 6 2024 – New STP ECA – Started new UV disinfection system, chlorine sodium hypo system switched off (no longer in service). New weekly sampling protocols now being active. * All sewage work is now being conducted in the Janitor's closet at the sink. (isolated from water testing in lab)
- Blower 2 (installed in 2019) is leaking oil, and getting worse. May require more frequent replacement of belts and shives due to oil contamination. Suspect main shaft seal. Suggest contacting the manufacturer for support on repair. Although blower is still operatable, the leak will have to be addressed eventually.

4.0 Maintenance Performed on the Works

- Effluent flow calibration verified April 19, 2024
- Instrumentation and electrical equipment inspected and repaired as required.
- SPS wet well cleaned, STP Digester and Sludge holding tank cleaned, cleaned grit channels, Waste Pit Cleanout, cleaned cl2 contact chamber, Sludge hauls as required
- Chlorine Pump Maintenance, Seasonal maintenance on chlorine dosage system
- Cleaned and flushed out collection system – annual maintenance.
- Adjusted clarifier scraper drive chain, oiled, replaced gearbox oil, greased motor
- Blowers greased & Oil changed, cleaned air filters, adjusted belts – started new 6 month maintenance program on blowers.
- Pressure washed STP, Painting STP, General Maintenance, Outside lighting was repaired.

5.0 Effluent Quality Assurance and Control Measures

The following activities are included in regular operator and supervisory activities to assure the quality of the sewage treatment operations including effluent quality and flow monitoring data:

- The facility is inspected by certified operators on a regular basis
- Certified operators conduct regular tests and monitor data from certain equipment at the plant and record this information on facility spreadsheets
- Certified operators monitor the process and make adjustments as required.
- Operation and Compliance staff review process data and laboratory reports to keep track of routine operation of the treatment plant to ensure compliance with the Ministry Guidelines.
- All laboratory results and selected operational data are logged in a process data management system, as well as on spreadsheets located at the WTP.
- All effluent quality data is reviewed by the Operations and Compliance staff to identify any changes in concentrations and/or emerging trends.
- All instrumentation is tested and maintained as per manufacturer's recommendations.
- All routine maintenance has been scheduled in Plant Workplace Maintenance System (WMS) and was completed in 2024.

Quality Control elements of the monitoring program include the following:

- Samples are collected as required and analyzed by Testmark Laboratories located in Kirkland Lake, Ontario. Analyses are conducted in accordance with the Standard Council of Canada (SCC), in cooperation with the Canadian Association for Laboratory Accreditation Inc. (CALA).
- Quality control procedures are method specific and include laboratory duplicate samples, spiked blanks and spiked duplicates.
- Any bypass or upset events that occur at the pumping stations or plant site are tested, monitored and reported to the local Health Unit and Spills Action Center (SAC).

6.0 Calibration and Maintenance of All Monitoring Equipment

Plant maintenance is conducted as per plant Preventative Maintenance Schedules. Monitoring equipment is calibrated based on the manufacturer's recommendations. All routine and preventative maintenance measures were conducted as scheduled in 2024. Refer to Table 6.1 for a summary of calibrations conducted in 2024.

6.1 Calibration Summary

Date	Instrument	% Accuracy
April 19/24	Effluent Flow Meter	99.85%

Note: The flow is metered with a V-notch weir and flow readings are confirmed at various levels at the weir plate and compared to manufacturer's standards. The % value above is an average of the accuracy at each level.

7.0 Efforts made to Meet Effluent Limits

Latchford staff use a number of best efforts to achieve the *Effluent Limits*.

Operational staff has the required certification to operate the facility and they continue to learn and gain knowledge with respect to the process and equipment. Staff also has a high level of regulatory competence.

The mechanical elements in the facility are regularly inspected, well maintained and kept in good repair. Latchford Staff use a maintenance management system which ensures maintenance of equipment is proactively performed.

Raw wastewater and effluent samples are collected as required and analyzed by Testmark Laboratories, an accredited laboratory. Latchford staff reviews these results on a regular basis to ensure compliance with regulatory limits.

In-house sampling and testing for operational parameters provide real time results which are used to enhance process and operational performance.

Operations, maintenance and emergency procedures are available to ensure facilities are operated in compliance with applicable legal instruments. Facility staff has access to a network of operational compliance and support experts at the region and corporate levels.

During this inspection period (Jan 1 to Sept 6, 2024), the facility operated efficiently and met the annual effluent limits for cBOD5 (25.0 mg/L), TSS (25.0 mg/L), TP (1.0 mg/L) and pH range of 6.0 to 9.5 as outlined in Item No. 2 Provincial Officer Order No. 5744-9YMKWN.

During this inspection period (Sept 6 to Dec 31, 2024), the facility operated efficiently and met the monthly effluent limits for cBOD5 (25.0 mg/L), TSS (25.0 mg/L), TP (1.0 mg/L), E. coli (200), TAN (2.0/3.0) and a pH range of 6.0 to 9.5 as outlined in New ECA No. 4756-D6UQ6Q

8.0 Sludge Generation and Disposal

Sludge is hauled by Ray & Son's Industrial Services to approved sites at the Latchford Landfill. The landfill is approved to accept the sludge under Certificate of Approval number: S504LM10-01.

Date Sludge Hauled	Volume of Sludge Hauled m ³
March 7, 2024	46.0 m3
Aug 14, 2024	53.5 m3
Oct 21, 2024	53.5 m3
Total Hauled	153 m3

According to the Ministry's procedure F-10-1; sludge is required to be sampled and tested annually. For a summary of sludge sampling results please refer to Appendix B for the Monthly Process Data Report for Sludge.

9.0 Complaints

According to records maintained by Latchford staff, no complaints were received during the 2024 reporting period.

10.0 Bypass, Spill and Abnormal Discharge Events

- Abnormally high flows in April 2024 due to heavy spring melt.
- There were no bypasses during the 2024 reporting period.

APPENDIX A

Monthly Process Data Report 2024

Litchford Sewage Treatment Plant 2024 Monthly Process Data Report																
Influent (Raw) P _i	01/2024	02/2024	03/2024	04/2024	05/2024	06/2024	07/2024	08/2024	09/2024	10/2024	11/2024	12/2024	Total	Avg	Max	Min
Influent / Biochemical Oxygen Demand: BOD ₅ - mg/L																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	120	62.5	1	41	19	9.4	13.6	52	41	37	73.1	31			120	
Mean Lab	120	62.5	1	41	19	9.4	13.6	52	32.25	27	46.53	23.2		37.29		
Min Lab	120	62.5	1	41	19	9.4	13.6	52	24	20	14	11				1
Influent / Total Suspended Solids: TSS - mg/L																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	143	54	41	44	13.5	17	<2	52	18	63	114	37			114	
Mean Lab	143	54	41	44	13.5	17	<2	52	14.88	30.2	64.75	24.14		41.54		
Min Lab	143	54	41	44	13.5	17	<2	52	12	11.5	31	12				0
Influent / Total Phosphorus: TP - mg/L																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	2.99	2.13	0.186	1.38	0.523	0.802	1.26	2.21	1.34	2.14	2.23	1.19			2.99	
Mean Lab	2.99	2.13	0.186	1.38	0.523	0.802	1.26	2.21	1.09	1.41	1.36	1.02		1.363417		
Min Lab	2.99	2.13	0.186	1.38	0.523	0.802	1.26	2.21	0.76	0.87	0.548	0.89				0.186
Influent / Total Kjeldahl Nitrogen: TKN - mg/L																
Count Lab	0	0	0	0	0	0	0	0	4	5	4	5	18			
Max Lab									14.9	18.4	19	13.2			19	
Mean Lab									12.03	14.32	14.03	11.6		12.995		
Min Lab									9.9	10.7	10.1	10.6				9.9
Effluent Parameters	01/2024	02/2024	03/2024	04/2024	05/2024	06/2024	07/2024	08/2024	09/2024	10/2024	11/2024	12/2024	Total	Avg	Max	Min
Effluent / Biochemical Oxygen Demand: BOD ₅ - mg/L																
Count Lab	1	1	1	1	1	1	1	1	1	0	0	0	9			
Max Lab	4.4	1.2	1.7	1.6	2	0.7	2.3	0.7	1						4.4	
Mean Lab	4.4	1.2	1.7	1.6	2	0.7	2.3	0.7	1					1.733333		
Min Lab	4.4	1.2	1.7	1.6	2	0.7	2.3	0.7	1							0.7
Effluent / Total Suspended Solids: TSS - mg/L																
Count Lab	2	2	2	3	2	2	2	2	4	5	4	5	35			
Max Lab	19	11.5	1.35	8	3.5	4	<1	2.5	4	15	3	49			49	
Mean Lab	12	10	1.35	4.5	3.5	3.75	<1	1.25	2.375	5.9	2.08	18.96		5.47		
Min Lab	5	8.5	1.35	2.5	3.5	3.5	<1	0	1	0	1	1				0
Effluent / Total Phosphorus: TP - mg/L																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	0.406	0.047	0.083	0.083	0.136	0.061	0.085	0.047	0.103	0.398	0.314	1.29			1.29	
Mean Lab	0.406	0.047	0.083	0.083	0.136	0.061	0.085	0.047	0.077	0.14	0.131	0.41		0.142167		
Min Lab	0.406	0.047	0.083	0.083	0.136	0.061	0.085	0.047	0.067	0.048	0.051	0.026				0.026
Effluent / Total Ammonia Nitrogen: NH ₃ + NH ₄ ⁺ as N - mg/L																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	0.92	0.02	0.08	0.08	0.01	0.18	0.1	0.02	0.04	<0.01	0.02	6.41			6.41	
Mean Lab	0.92	0.02	0.08	0.08	0.01	0.18	0.1	0.02	0.03	<0.01	0.015	1.62		0.259		
Min Lab	0.92	0.02	0.08	0.08	0.01	0.18	0.1	0.02	0	<0.01	0	0				0
Effluent / pH - --																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	7.03	7.52	7.67	7.52	7.64	7.45	7.75	7.59	7.48	7.58	7.64	7.8			7.8	
Mean Lab	7.03	7.52	7.67	7.52	7.64	7.45	7.75	7.59	7.46	7.53	7.62	7.6		7.531967		
Min Lab	7.03	7.52	7.67	7.52	7.64	7.45	7.75	7.59	7.42	7.5	7.6	7.47				7.03
Effluent / E. Coli: EC - cfu/100mL																
Count Lab	0	0	0	0	0	1	2	2	4	5	4	5	23			
Max Lab						8800	39600	22400	1620	1	3	59			39600	
Mean Lab						8800	21350	15250	30	0	1.73	7.34		3786.6		
Min Lab						8800	3100	8100	2	0	0	2				0
Effluent / O ₂ Residual: Total - mg/L																
Count Lab	0	0	0	0	0	12	23	21	4	0	0	0	60			
Max Lab						0.05	0.06	0.07	0.03						0.07	
Mean Lab						0.02	0.03	0.02	0.025					0.02375		
Min Lab						0	0.01	0	0.02							0
Effluent / CBOD																
Count Lab	1	1	1	1	1	1	1	1	4	5	4	5	26			
Max Lab	3	1	1	1.3	0.7	0.6	1.8	0.6	1.5	1.1	0.9	7.1			7.1	
Mean Lab	3	1	1	1.3	0.7	0.6	1.8	0.6	1.075	0.54	0.87	2.74		1.26975		
Min Lab	3	1	1	1.3	0.7	0.6	1.8	0.6	0.5	0	0	0.6				0
Effluent / Total Kjeldahl Nitrogen: TKN																
Count Lab	0	0	0	0	0	0	0	0	3	5	4	5	17			
Max Lab									2.6	3.2	2.3	11.1			11.1	
Mean Lab									2.4	2.78	1.83	5.22		3.0575		
Min Lab									2.3	2	1.3	1.2				1.2
Effluent / Temperature - C																
Count Lab	0	0	0	0	0	0	0	0	0	5	4	5	14			
Max Lab										15.3	12.7	9.5			15.3	
Mean Lab										13.18	10.9	8.08		10.72		
Min Lab										10.5	9.5	5.6				5.6
Effluent / Un-ionized Amonia																
Count Lab	0	0	0	0	0	0	0	0	3	5	4	5	17			
Max Lab									<0.002	<0.002	<0.002	0.052			0.052	
Mean Lab									<0.002	<0.002	<0.002	0.01		0		
Min Lab									<0.002	<0.002	<0.002	0				0

Appendix B – Annual Sludge Results 2024

Work Order #	Sample #	SampleDate	Matrix	Sample Description	Method	Parameter	MDL	Result	Units	ReceivedDate	AnalysisDate
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	Ammonia Water (A42)	Ammonia (as N)	0.1	2.3	mg/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	Anions Water (mg/L by IC) (A5)	Nitrate (as N)	0.05	<0.05	mg/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Arsenic	1	5	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Cadmium	0.1	1.9	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Chromium	1	4	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Cobalt	0.1	6.3	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Copper	1	57	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Lead	0.1	0.2	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Mercury	0.1	<0.1	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Molybdenum	1	<1	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Nickel	1	19	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Potassium	1000	41000	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Selenium	0.2	1	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	ICPMS Reg. Water (A13.1)	Zinc	10	1630	ug/L	2024-01-16	2024-01-17
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	TP Water (A23.2)	Total Phosphorus (as P)	2	369	mg/L	2024-01-16	2024-01-18
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	TS (A27)	Total Solids	20	13000	mg/L	2024-01-16	2024-01-22
524026	1968320	2024-01-15	Sludge	LA S - Sludge Haul	TS (A27)	Total Solids (Dup)	20	13300	mg/L	2024-01-16	2024-01-22