# COCHRANE WATER / WASTE WATER SERVICES



**GLACKMEYER LAGOON** 

**2020 ANNUAL REPORT** 

### Reference Index

#### **2020 Annual Report**

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# ANNUAL PERFORMANCE REPORT

#### **Annual Performance Report**

This report is prepared to comply with Section 9 (5) of the Environmental Compliance Approval Number 1561-ADZNH4, issued February 21, 2017. The report shall contain:

a) A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined Condition 6, including an overview of the success and adequacy of the Works;

#### RAW SEWAGE RESULTS

RAW SEWAGE	MONTHLY AVERAGE RESULTS		
BOD	81.73 mg/l		
SUSPENDED SOLIDS	85.84 mg/l		
TOTAL PHOSPHORUS	2.85 mg/l		
TKN	23.89 mg/l		
AMMONIA	18.27 mg/l		
CBOD	74.23 mg/L		
рН	7.82 mg/L		

The following are samples taken before and during discharging the Glackmeyer Lagoon.

Test	Prior to Discharge May 5, 2020	Beginning of Discharge May 19, 2020	During Discharge (25%) May 21, 2020	During Discharge (50%) May 22, 2019	During Discharge (75%) May 24, 2019	End of Discharge May 27, 2019
рН	8.25	8.06	7.52	7.41	7.88	8.26
CBOD	5.1	3.7	14	12	2.6	6.8
SUSPENDED SOLIDS	48.7	20.5	30	33	25.3	11.7
PHOSPHORUS	8.25	0.657	1.99	1.87	1.19	0.653
E.Coli	0	1	2	295	70	16
Un-Ionized AMMONIA	0.004	0.013	0.021	0.017	0.029	0.01
AMMONIA	0.14	0.04	6.58	4.22	1.11	0.14

b) A description of any operating problems encountered, and corrective actions taken;

#### None.

c) A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;

#### None.

d) A summary of any effluent assurance or control measures undertaken in the reporting period;

The monitoring programs consists of regular weekly rounds ensuring all equipment is functioning (valves) and take a weekly pH sample in both lagoons during months when access is available (ex. snow) and weekly from the pumping station pit.

e) A summary of the calibration and maintenance carried out on all effluent monitoring equipment;

The effluent flow meter will be calibrated in 2021.

f) A description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5.

The attached Data Summary shows the Glackmeyer Lagoon has not exceeded the effluent concentrations for the CBOD (30 mg/l) and the Total Suspended Solids (40 mg/L)). However, the Phosphorus Criteria (1.0mg/L) has been exceeded with an annual average of 1.272 mg/L (SAC Report # 7785-BQAG4S). pH levels (6.5-8.5) were maintained.

g) 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;

None.

h) A summary of any complaints received during the reporting period and any steps taken to address the complaints;

None.

i) A summary of all by-pass, spills or abnormal discharge events;

DATE	ТҮРЕ	DURATION (hours)	FLOW (m3)
03/05/2019	Lagoon Overflow	8544	4500
06/10/2020	Lagoon Overflow	Continuous	N/A

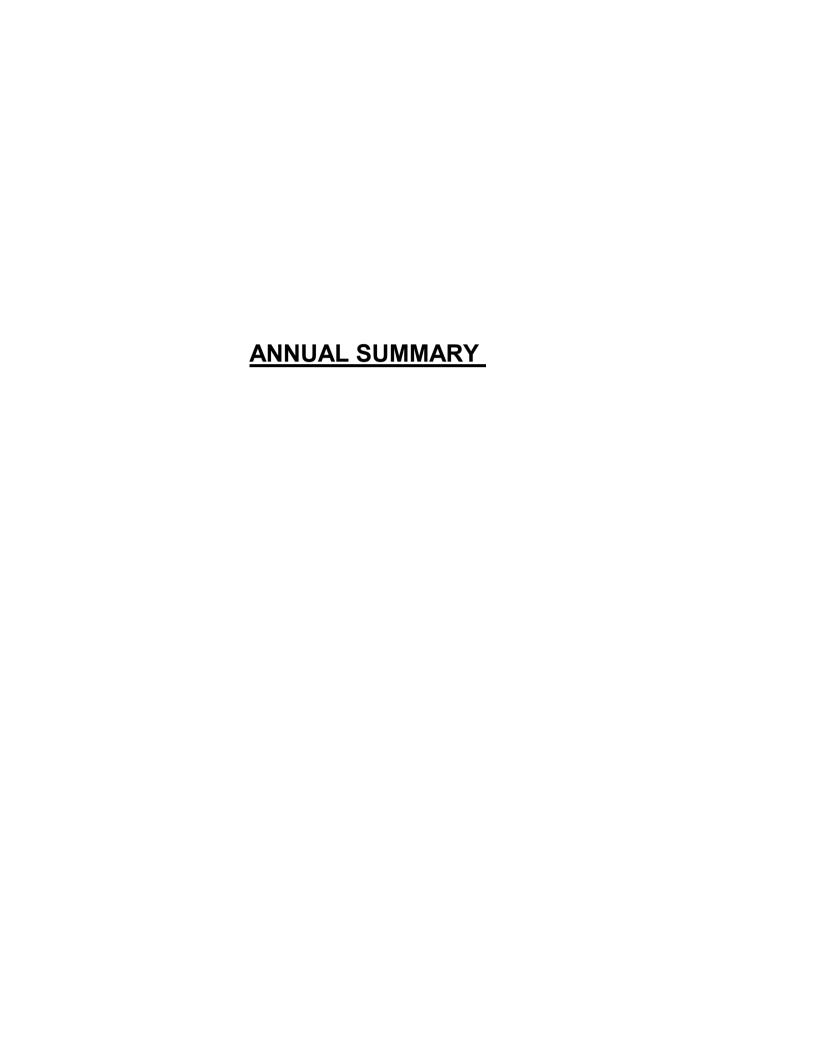
j) A copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;

None.

k) A report summarizing all modifications completed as results of Schedule B, Section 3;

None.

1)	Any other information the Water Supervisor requires from time to time;							
	None.							
	This is the report on the Glackmeyer Lagoon for the year 2020. I certify that the information in this document and all the attachments are correct, accurate and complete to the best of my knowledge.							
	Prepared by, Melissa Hoogenhoud Asset Coordinator							
	Respectfully submitted and revised by:							
	Lynn Chapleau Infrastructure Supervisor							



		Gla	ackmeyer	Lagoon /	Lab Results					2020	ID	: 1200020	68				
<u>month</u>	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		TOTAL	AVG.		
Number of Samples																	
BOD (mg/l)	150	130	150	17	35	65	32	74.7	90	92	73.3	71.7		980.7	81.725	BO	D (mg/l)
SS (mg/l)	87.1	53.3	123	14	65	90	67	80	58	81	54.7	257			85.842		6 (mg/l)
						26.4		40.3	29.8					286.7			
TKN (mg/l)	34.4	33.3	37.6	7.6	14.2		19.8			3.2	13.9	26.2			23.892		N (mg/l)
Total P. (mg/l)	4.65	4.1	5.37	0.878	1.11	2.46	2.07	4.87	3.68	0.143	1.59	3.26		34.181			P. (mg/l)
Ammonia (mg/l)	31.7	32	31.2	2.39	5.17	15.4	14.7	24.3	28.7	0.26	10.2	23.2		219.22			onia (mg/l)
CBOD (mg/L)	130	150	150	31	26	64	24	69.8	34	110	30	71.9		890.7	74.225	СВО	DD (mg/L)
Number of Samples		4	3	4	4	5	4	4	4	5	3	5					
North Lagoon pH					9.36	7.88	7.9	8.1	7.95	7.55				7.55	8.1233		
South Lagoon pH					8.34	8.02	8.04	8.07	7.61	7.67				7.67	7.9583		
Pumping Station pH	7.61	7.73	7.9	7.715	7.66	7.69	7.6	7.62	7.51	7.73	7.72	7.74		92.225	7.6854		
month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		TOTAL	AVG.		
Prior To Discharge					May 5/20				•								
CBOD (mg/l)					5.1									5.1	5.1		
SS (mg/l)					48.7									48.7	48.7		
Ammonia (mg/l)					0.14									0.14	0.14		
pH (mg/l)					8.25									8.25	8.25		
Total P. (mg/l)					0.393									0.393	0.393		
ı- Ionized Ammonia (mg/l)					0.004									0.004	0.004		
E.Coli					0									0	0		
During Discharge					Beginning May 10/20	25% May 21/20	50% May 22/20	75% May 24/20	100% (END)								
During Discharge CBOD (mg/l)					May 19/20 3.7	May 21/20 14	May 22/20 12	May 24/20 2.6	May26/20 6.8					39.1	7.82		
SS (mg/l)					20.5	30	33	25.3	11.7					120.5	24.1		
Total P. (mg/l)					0.657	1.99	1.87	1.19	0.653					6.36	1.272		
Ammonia (as N) (mg/l)					0.04	6.58	4.22	1.11	0.14					12.09	2.418		
Un-lonized Amm (mg/l)					0.013	0.021	0.017	0.029	0.01			-		0.09	0.018		
pH					8.06	7.52	7.41	7.88	8.26					39.13	7.826		
Temperature					16	18	17	18	14					83	16.6		
E,Coli (CFU)			1	l	1	2	295	70	16	l				384	76.8		

# **DISCHARGE**

# **ANALYTICAL**

## **REPORTS**



Client: Melissa Hoogenhoud Work Order Number: 399244
Company: Town of Cochrane - Wastewater PO #: 9184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Rob McNabb

Date Order Received: 5/5/2020
Arrival Temperature: 10 °C
Analysis Started: 5/5/2020
Analysis Completed: 5/13/2020

#### **WORK ORDER SUMMARY**

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - Prior % Discharge	1533853	Wastewater	Grab		5/5/2020	9:10 AM
South Lagoon - Prior % Discharge	1533854	Wastewater	Grab		5/5/2020	9:10 AM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500

#### **REPORT COMMENTS**

Date of Issue: 05/13/2020 16:06

**BACTI LOT #1929** 

Unionized ammonia calculated using received temperature and lab pH.



Town of Cochrane - Wastewater Work Order Number: 399244

This report has been approved by:

Date of Issue: 05/13/2020 16:06

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 399244

#### **WORK ORDER RESULTS**

Date of Issue: 05/13/2020 16:06

Sample Description	South Lagoo Disch			
Sample Date	5/5/2020	5/5/2020 9:10 AM		
Lab ID	1533	3853		
General Chemistry	Result	MDL	Units	
Ammonia (as N)	0.14	0.01	mg/L	
рН	8.25	N/A	рН	
Total Phosphorus (as P)	0.393	0.002	mg/L	
Un-Ionized Ammonia (Calc.)	0.004	0.002	mg/L	
Sample Description	South Lagoon - Prior % Discharge			
Sample Date	5/5/2020			
Lab ID	1533			
Microbiology	Result	MDL	Units	
Microbiology Escherichia coli	Result 0	MDL 1	Units CFU/100mL	
		1 n - Prior %		
Escherichia coli	0 South Lagoo	1 n - Prior % arge		
Escherichia coli  Sample Description	0 South Lagoo Disch	1 n - Prior % narge 9:10 AM		
Escherichia coli  Sample Description  Sample Date	0 South Lagoo Disch	1 n - Prior % narge 9:10 AM		



Town of Cochrane - Wastewater Work Order Number: 399244

Sample Description	South Lagoo Discl		
Sample Date	5/5/2020		
Lab ID	1533		
Solids	Result	MDL	Units
Total Suspended Solids	48.70	0.67	mg/L

#### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

Date of Issue: 05/13/2020 16:06

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.



Client: Lynn Chapleau Work Order Number: 400362
Company: Town of Cochrane - Wastewater PO #: 9184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-5067 / (705) 272-2634 DWS #:

Email: lynn.chapleau@cochraneontario.com Sampled By: Aaron Morrison

Date Order Received: 5/19/2020 Analysis Started: 5/20/2020
Arrival Temperature: 16 °C Analysis Completed: 5/27/2020

#### **WORK ORDER SUMMARY**

Date of Issue: 05/27/2020 16:29

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - 100% Discharge	1538161	Wastewater	Grab		5/19/2020	8:33 AM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500



Town of Cochrane - Wastewater Work Order Number: 400362

This report has been approved by:

Date of Issue: 05/27/2020 16:29

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 400362

#### **WORK ORDER RESULTS**

Date of Issue: 05/27/2020 16:29

Sample Description South Lagoon - 100% Discharge						
Sample Date	5/19/2020					
Lab ID	1538	1538161				
Field Parameters	Result	MDL	Ur			
Field pH	9.05	N/A	р			
Field Temp	20.5	N/A	0			

Sample Description	South Lagoon - 100% Discharge
Sample Date	5/19/2020 8:33 AM
Lab ID	1538161

General Chemistry	Result	MDL	Units
Ammonia (as N)	0.04	0.01	mg/L
рН	8.06	N/A	рН
Total Phosphorus (as P)	0.657	0.002	mg/L
Un-Ionized Ammonia (Calc.)	0.013	0.002	mg/L

Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/19/2020	0 8:33 AM	
Lab ID	1538	3161	
Microbiology	Result	MDL	Units
Escherichia coli	1	1	CFU/100mL



Town of Cochrane - Wastewater Work Order Number: 400362

Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/19/2020 8:33 AM		
Lab ID	1538	3161	
Oxygen Demand	Result	MDL	Units
Carbonaceous BOD	3.7	0.5	mg/L
Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/19/2020	8:33 AM	
Lab ID	1538	3161	
Received Temperature	Result	MDL	Units
Received Temperature	16	N/A	°C
Received Temperature  Sample Description		N/A  100% Discharge	°C
		100% Discharge	°C
Sample Description	South Lagoon -	100% Discharge 0 8:33 AM	°C
Sample Description Sample Date	<b>South Lagoon -</b> 5/19/2020	100% Discharge 0 8:33 AM	°C Units

Date of Issue: 05/27/2020 16:29



Town of Cochrane - Wastewater Work Order Number: 400362

#### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

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MDL: Method detection limit or minimum reporting limit.

Date of Issue: 05/27/2020 16:29

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.



Client: Melissa Hoogenhoud Work Order Number: 400716
Company: Town of Cochrane - Wastewater PO #: 9184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Tyler Cheff

Date Order Received: 5/21/2020 Analysis Started: 5/21/2020 Analysis Completed: 5/28/2020

#### **WORK ORDER SUMMARY**

Date of Issue: 05/28/2020 16:12

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - 25% Discharge	1538774	Wastewater	Grab		5/21/2020	8:30 AM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500



Town of Cochrane - Wastewater Work Order Number: 400716

This report has been approved by:

Date of Issue: 05/28/2020 16:12

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 400716

#### **WORK ORDER RESULTS**

Date of Issue: 05/28/2020 16:12

Sample Description	South Lagoon - 25% Discharge	
Sample Date	5/21/2020 8:30 AM	
Lab ID	1538774	
Field Parameters	Result	MDL

Field Parameters	Result	MDL	Units
Field pH	7.18	N/A	рН
Field Temp	11.6	N/A	°C

Sample Description	South Lagoon - 25% Discharge
Sample Date	5/21/2020 8:30 AM
Lab ID	1538774

General Chemistry	Result	MDL	Units
Ammonia (as N)	6.58	0.02	mg/L
рН	7.52	N/A	рН
Total Phosphorus (as P)	1.99	0.02	mg/L
Un-Ionized Ammonia (Calc.)	0.021	0.002	mg/L

Sample Description	South Lagoon -	25% Discharge	
Sample Date	5/21/2020 8:30 AM		
Lab ID	1538774		
Microbiology	Result	MDL	Units
Escherichia coli	2	2	CFU/100mL



Town of Cochrane - Wastewater Work Order Number: 400716

Sample Description	South Lagoon -	25% Discharge	
Sample Date	5/21/2020	8:30 AM	
Lab ID	1538	3774	
Oxygen Demand	Result	MDL	Units
Carbonaceous BOD	14	3	mg/L
Sample Description	South Lagoon -	25% Discharge	
Sample Date	5/21/2020	8:30 AM	
Lab ID	1538	3774	
Received Temperature	Result	MDL	Units
Received Temperature  Received Temperature	Result 18	MDL N/A	Units
		N/A	
Received Temperature	18	N/A 25% Discharge	
Received Temperature  Sample Description	18 South Lagoon -	N/A 25% Discharge 0 8:30 AM	
Received Temperature  Sample Description  Sample Date	18  South Lagoon - 5/21/2020	N/A 25% Discharge 0 8:30 AM	

Date of Issue: 05/28/2020 16:12



Town of Cochrane - Wastewater Work Order Number: 400716

#### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

Date of Issue: 05/28/2020 16:12

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.



Client: Melissa Hoogenhoud Work Order Number: 400864
Company: Town of Cochrane - Wastewater PO #: 9184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Tyler Cheff

Date Order Received: 5/22/2020
Arrival Temperature: 17 °C
Analysis Started: 5/22/2020
Analysis Completed: 6/1/2020

#### **WORK ORDER SUMMARY**

Date of Issue: 06/01/2020 16:13

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - 50% Discharge	1539301	Wastewater	Distribution		5/22/2020	8:40 AM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500



Town of Cochrane - Wastewater Work Order Number: 400864

#### REPORT COMMENTS

E. coli sample received in PET bottle.

This report has been approved by:

Date of Issue: 06/01/2020 16:13

Adam Tam, M.Sc.

Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 400864

#### **WORK ORDER RESULTS**

Date of Issue: 06/01/2020 16:13

Sample Description	South Lagoon - 50% Discharg	
Sample Date	5/22/2020 8:40 AM	
Lab ID	1539301	
E. 115	D 11 MD1	

Field Parameters	Result	MDL	Units
Field pH	7.25	N/A	рН
Field Temp	12.6	N/A	°C

Sample Description	South Lagoon - 50% Discharge
Sample Date	5/22/2020 8:40 AM
Lab ID	1539301

General Chemistry	Result	MDL	Units
Ammonia (as N)	4.22	0.01	mg/L
рН	7.41	N/A	рН
Total Phosphorus (as P)	1.87	0.01	mg/L
Un-Ionized Ammonia (Calc.)	0.017	0.002	mg/L

Sample Description	South Lagoon -		
Sample Date	5/22/2020		
Lab ID	1539		
Microbiology	Result MDL		Units
Escherichia coli	285 [295]	5	CFU/100mL



Town of Cochrane - Wastewater Work Order Number: 400864

Sample Description	South Lagoon - 50% Discharge			
Sample Date	5/22/2020			
Lab ID	1539301			
Oxygen Demand	Result	MDL	Units	
Carbonaceous BOD	12	3	mg/L	
Sample Description	South Lagoon -	50% Discharge		
Sample Date	5/22/2020 8:40 AM			
Lab ID	1539301			
Received Temperature	Result	MDL	Units	
Received Temperature Received Temperature	Result	MDL N/A	Units °C	
	17			
Received Temperature	17	N/A 50% Discharge		
Received Temperature  Sample Description	17 South Lagoon -	N/A 50% Discharge 0 8:40 AM		
Received Temperature  Sample Description  Sample Date	17  South Lagoon - 5/22/2020	N/A 50% Discharge 0 8:40 AM		

Date of Issue: 06/01/2020 16:13



Town of Cochrane - Wastewater Work Order Number: 400864

#### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

Date of Issue: 06/01/2020 16:13

[]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.



Client: Melissa Hoogenhoud Work Order Number: 400962
Company: Town of Cochrane - Wastewater PO #: 9184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Chris Crawford

Date Order Received: 5/25/2020 Analysis Started: 5/26/2020
Arrival Temperature: 18 °C Analysis Completed: 6/1/2020

#### **WORK ORDER SUMMARY**

Date of Issue: 06/01/2020 16:30

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - 75% Discharge	1539616	Wastewater	Grab		5/24/2020	12:20 PM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500



Town of Cochrane - Wastewater Work Order Number: 400962

This report has been approved by:

Date of Issue: 06/01/2020 16:30

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 400962

#### **WORK ORDER RESULTS**

Date of Issue: 06/01/2020 16:30

Sample Description	South Lagoon - 75% Discharge		
Sample Date	5/24/2020 12:20 PM		
Lab ID	1539616		
Field Parameters	Result	MDL	Units
Field pH	7.88	N/A	рН
Field Temp	18.3	N/A	°C

Sample Description	South Lagoon - 75% Discharge
Sample Date	5/24/2020 12:20 PM
Lab ID	1539616

General Chemistry	Result	MDL	Units
Ammonia (as N)	1.11	0.01	mg/L
pH	7.88	N/A	рН
Total Phosphorus (as P)	1.190 0.006		mg/L
Un-Ionized Ammonia (Calc.)	0.029	0.002	mg/L

Sample Description	South Lagoon -		
Sample Date	5/24/2020		
Lab ID	1539		
Microbiology	Result	MDL	Units
Escherichia coli	70	5	CFU/100mL



Town of Cochrane - Wastewater Work Order Number: 400962

Sample Description	South Lagoon -		
Sample Date	5/24/2020 12:20 PM		
Lab ID	1539		
Oxygen Demand	Result	MDL	Units
Carbonaceous BOD	2.6	0.5	mg/L
Sample Description	South Lagoon - 75% Discharge		
Sample Date	5/24/2020		
Lab ID	1539616		
	Result MDL		
Received Temperature	Result	MDL	Units
Received Temperature Received Temperature	Result 18	MDL N/A	Units °C
		N/A	
Received Temperature	18	N/A 75% Discharge	
Received Temperature  Sample Description	18 South Lagoon -	N/A 75% Discharge 12:20 PM	
Received Temperature  Sample Description  Sample Date	18  South Lagoon - 5/24/2020	N/A 75% Discharge 12:20 PM	

Date of Issue: 06/01/2020 16:30



Town of Cochrane - Wastewater Work Order Number: 400962

#### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

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MDL: Method detection limit or minimum reporting limit.

Date of Issue: 06/01/2020 16:30

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.



Client: Melissa Hoogenhoud Work Order Number: 401095
Company: Town of Cochrane - Wastewater PO #: 3184

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Discharge

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Aaron Morrison

Date Order Received: 5/26/2020
Arrival Temperature: 14 °C
Analysis Started: 5/26/2020
Analysis Completed: 6/3/2020

#### **WORK ORDER SUMMARY**

Date of Issue: 06/03/2020 16:39

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
South Lagoon - 100% Discharge	1540040	Wastewater	Grab		5/26/2020	9:00 AM

#### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia	Modified from APHA-4500



Town of Cochrane - Wastewater Work Order Number: 401095

This report has been approved by:

Date of Issue: 06/03/2020 16:39

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 401095

### **WORK ORDER RESULTS**

Date of Issue: 06/03/2020 16:39

Sample Description	South Lagoon - 100% Discharge		
<b>Sample Date</b> 5/26/2020 9:00 AM			
Lab ID	1540		
Field Parameters	Result	MDL	Unit
Field pH	8.28	N/A	рН
Field Temp	19.5	N/A	°C

Sample Description	South Lagoon - 100% Discharge
Sample Date	5/26/2020 9:00 AM
Lab ID	1540040

General Chemistry	Result	MDL	Units
Ammonia (as N)	0.14	0.01	mg/L
рН	8.26	N/A	рН
Total Phosphorus (as P)	0.653	0.002	mg/L
Un-Ionized Ammonia (Calc.)	0.010	0.002	mg/L

Sample Description	South Lagoon -	South Lagoon - 100% Discharge			
Sample Date	5/26/2020				
Lab ID	1540	0040			
Microbiology	Result	MDL	Units		
Escherichia coli	16	2	CFU/100mL		



Town of Cochrane - Wastewater Work Order Number: 401095

Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/26/2020	9:00 AM	
Lab ID	1540		
Oxygen Demand	Result	Units	
Carbonaceous BOD	6.8	0.5	mg/L
Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/26/2020		
Lab ID	1540	0040	
Received Temperature	Result	MDL	Units
Received Temperature	14	N/A	°C
Sample Description	South Lagoon -	100% Discharge	
Sample Date	5/26/2020		
Lab ID	1540	0040	
	1540 Result	0040 MDL	Units

Date of Issue: 06/03/2020 16:39



Town of Cochrane - Wastewater Work Order Number: 401095

### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

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MDL: Method detection limit or minimum reporting limit.

Date of Issue: 06/03/2020 16:39

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

## BYPASS SUMMARY NOTIFICATION AND LAB RESULTS

FACILITY NAM	E:	Glackmeyer Lagoo	n				YEAR:	2019					
DATE:											Sample	Results	
Date (dd/mm/yy)	Location	Type (PB/SB/STPO /CSO/SSO/STWO)	Start Time	Duration (hours)	Volume (m3)	M/E	Disinfection (Y/N)	Treatment (Y/N)	Reason Code*	BOD5 (mg/L)	SS (mg/L)	TP (mg/L)	E.Coli (/100ml)
03/05/2019	Glackmeyer Lagoon	STPO	9:00	8544	4500	Е	N	N	2	4.97	7	0.415	
06/10/2020	Glackmeyer Lagoon	STPO	8:45	Ongoing	N/A	Е	N	N	2	10.4	22	0.547	
<u>Legend</u>													
							*Reason Codes:						
PB = Primary B	ypass		M = Mea	sured	Y = Yes		1 = Heavy Pred	ipitation		6 = Process	s Upsets		
SB = Secondary	/ Bypass		E = Estim	nated	N = No		2 = Spring Run	off		7 = Power (			
STPO = Sewag	e Treatment Plant Overflo	DW .					3 = Infiltration			8 = Unknow	vn		
CSO = Combine	ed Sewer Overflow						4 = Mechanical	/Equipment Fa	ailure	9 = Other, please comment below.			
-	Sewer Overflow						5 = Pipe Failure	es(break/leak/	plugged)				
STWO = Satelli	te Treatment Works Over	flow											
Comments:													
** Ongoing Byp	ass**												
	T		1				T	T	T		1	T	7
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### GLACKMEYER LAGOON OVERFLOW BYPASS, SPILL, OR LEAK REPORTING ID # 1200002068

### Spills Action Center Phone No. 1-800-268-6060 MOH Phone No. 1-800-461-1818

	Date: May 3/19 Time of Call: 1053 a.m./p.m.	
	Reference #: 903269 Person Who Called: AMON MONEYS	01
SAC	Office Called: 1053 Reported By: BLAKE TURNER  1 100 KAYTZIN  Bypass: Spill: Leak: Overflow:	
	Location of Incident: G-LACK MEYIA LAGOON	
	Time of Incident: DQD Jam./p.m. Receiver: BROWL-R CR1-77	
	Details of Incident: DVBLFLOW DUE TO SPRINT	6
	Run OFF	
	Downstream Users: NoWE	
	Possible Effects on Receiver, Environment or Downstream Users:	
	NOTE: Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for:  1. 5-day BOD, Suspended Solids, Total Phosphorus and TKN  Addition Calls  Town Hall: Phone No. 272-4361 Fax No. 272-6068 Time of Call:	
	Details of Call:	
	<u>Termination of Incident</u>	
	Date: April 24/20 Time of Call: 0:55 am Person Contacted: AKIKO	
	Time of Termination: 7:300 Approximate Volume: 4,500 Cu. Meters	
	Current Status: Chlorinating? Yes: No: Explain:	
	Further Action Required:	
	Reported By: Melissa hoogantood «dcDocumentsDocumentNumber»	



Client: Melissa Hoogenhoud Work Order Number: 371021 Company: Town of Cochrane - Wastewater PO#: Address: 171 Fourth Ave, Box 490 Regulation: Information not provided Cochrane, ON, P0L 1C0 Project #: Lagoon Overflow Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #: Email: Melissa.Hoogenhoud@cochraneontario.com Aaron Morrison Sampled By: Date Order Received: 5/3/2019 Analysis Started: 5/6/2019 6°C Arrival Temperature:

Analysis Completed:

5/13/2019

### **WORK ORDER SUMMARY**

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
Lagoon Overflow	1434196	Wastewater	Grab		5/3/2019	11:10 AM

### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
KL-BOD5 (K3)	Kirkland Lake	Determination of 5-Day Biological Oxygen Demand (BOD5)	Modified from APHA-5210B
KL-CBOD5 (K3)	Kirkland Lake	Determination of 5-Day Carbonaceous Biological Oxygen Demand (cBOD5)	Modified from APHA-5210B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540



Town of Cochrane - Wastewater

Work Order Number: 371021

This report has been approved by:

Adam Tam, M.Sc.

Laboratory Director



Town of Cochrane - Wastewater

Work Order Number: 371021

### **WORK ORDER RESULTS**

Sample Description	Lagoon Overflow				
Lab ID	1434				
General Chemistry	Result	MDL	Units		
Total Phosphorus (as P)	0.415	0.002	mg/L		
Sample Description	Lagoon (	Overflow			
Lab ID	1434	196			
Oxygen Demand	Result	MDL	Units		
BOD (5 day)	5.81	2.4	mg/L		
Carbonaceous BOD	4.97	2,4	mg/L		
Samula Description	Lagoon (	Overflow			
Sample Description					
Lab ID	1434	196			
	1434 Result	196 MDL	Units		

### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

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MDL: Method detection limit or minimum reporting limit.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.
Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

# OVERFLOW BYPASS, SPILL, OR LEAK REPORTING ID # 1200002068

# Spills Action Center Phone No. 1-800-268-6060 MOH Phone No. 1-800-461-1818

Date.	* ) / /
Daic.	DCT 6/20 Time of C-11
Reference	Time of Call: 1257 a.m./p.m. e#: 904796
7	Person Who Called: Adday 1/
Office Ca	
Bypass:	Reported By: SATIMA JABEN  Spill:  Reported By: SATIMA JABEN  FILE OF THE PROPERTY OF THE PROP
	Leak:Overflow:
Location	of Incident: GLACKMEYER LAGOON
Time of I	ncident: DOVS (m)
	ncident: 0845 (a.m./p.m. Receiver: BLOWEN CREEK
Details of	Incident: LAGOON DUGAFLOWING DUE TO RA
10,14	175 AT SAPANAI
1100	- 11 - 11 - CITING 17,
Downstre	am Users: None
D .1 1 T	
Possible E	Effects on Receiver, Environment or Downstream Users: NO
	Reports of Resolver, Business of Downstein Berry
NOTE: To 1. 5-0 Addition Town Hall Details of	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:
NOTE: To 1. 5-0 Addition Town Hall Details of	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident
NOTE: To 1. 5-0 Addition Town Hall Details of	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:
NOTE: T  1. 5-0  Addition  Town Hall  Details of  Terminati  Date:	Cake 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Cu. Meters
NOTE: To 1. 5-0 Addition Town Hall Details of the Termination	Cake 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Cu. Meters
NOTE: To 1. 5-0 Addition Town Hall Details of or the second secon	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  I: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Cu. Meters
NOTE: To 1. 5-0 Addition Town Hall Details of or the second secon	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  I: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Cu. Meters
NOTE: To 1. 5-0 Addition Town Hall Details of Terminati  Date:  Time of Terminati  Current State	Cake 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Cu. Meters  tus: Chlorinating? Yes:  No:  Explain:
NOTE: To 1. 5-0 Addition Town Hall Details of Terminati  Date:  Time of Terminati  Current State	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Time of Call:  Person Contacted:  Time of Call:  Approximate Volume:  Cu. Meters  tus: Chlorinating? Yes:  No:  Explain:
NOTE: To 1. 5-0 Addition Town Hall Details of Terminati Date: Time of Terminati Current State	Take 2 Raw Sewage Samples at the start and end Per Incident & Have them Tested for day BOD, Suspended Solids, Total Phosphorus and TKN  Calls  1: Phone No. 272- 4361 Fax No. 272-6068 Time of Call:  Call:  Con of Incident  Time of Call:  Person Contacted:  Trime of Call:  Cu. Meters  tus: Chlorinating? Yes:  No:  Explain:



Client: Melissa Hoogenhoud Work Order Number: 413524

Company: Town of Cochrane - Wastewater PO #:

Address: 171 Fourth Ave, Box 490 Regulation: Information not provided

Cochrane, ON, P0L 1C0 Project #: Lagoon Overflow

Phone/Fax: (705) 272-4232 / (705) 272-2634 DWS #:

Email: Melissa.Hoogenhoud@cochraneontario.com Sampled By: Aaron Morrison

Date Order Received: 10/7/2020 Analysis Started: 10/8/2020
Arrival Temperature: 5 °C Analysis Completed: 10/19/2020

### **WORK ORDER SUMMARY**

Date of Issue: 10/19/2020 17:03

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Туре	Comments	Date Collected	Time Collected
Lagoon Overflow - South	1584312	Wastewater	Grab		10/6/2020	1:30 PM

### **METHODS AND INSTRUMENTATION**

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
BOD (A3)	Kirkland Lake	Determination of Biochemical Oxygen Demand (BOD)	Modified from SM-5210 B
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD).	Modified from SM-5210-B
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540



Town of Cochrane - Wastewater Work Order Number: 413524

This report has been approved by:

Date of Issue: 10/19/2020 17:03

Adam Tam, M.Sc. Laboratory Director



Town of Cochrane - Wastewater Work Order Number: 413524

### **WORK ORDER RESULTS**

Date of Issue: 10/19/2020 17:03

Sample Description	Lagoon Overflow - South		
Sample Date	10/6/2020	10/6/2020 1:30 PM	
Lab ID	1584312		
Field Parameters	Result	MDL	Units
Field pH	7.89	N/A	рН
Field Temp	12.6	N/A	°C
Sample Description	Lagoon Over	Lagoon Overflow - South	
Sample Date	10/6/2020 1:30 PM		
Lab ID	1584312		
General Chemistry	Result	MDL	Units
Total Phosphorus (as P)	0.547	0.002	mg/L
Sample Description	Lagoon Over	Lagoon Overflow - South	
Sample Date	10/6/2020 1:30 PM		
Lab ID	1584312		
Oxygen Demand	Result	MDL	Units
BOD (5 day)	10.4	1	mg/L



Town of Cochrane - Wastewater Work Order Number: 413524

Sample Description	Lagoon Overflow - South		
Sample Date	10/6/2020 1:30 PM		
Lab ID	1584312		
Solids	Result	MDL	Units
Total Suspended Solids	22.00	0.67	mg/L

### **LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

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MDL: Method detection limit or minimum reporting limit.

Date of Issue: 10/19/2020 17:03

Quality Control: All associated Quality Control data is available on request.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.