

Echo Bay Water Pollution Control Plant

Annual Operating Report

*CofA 3-1119-95-006
Issued December 20, 1995*

January 1, 2022 – December 31, 2022

Prepared by the Ontario Clean Water Agency
For The Corporation of the Township of Macdonald, Meredith and Aberdeen Additional



Ontario Clean Water Agency
Agence Ontarienne Des Eaux



SECTION 1: INTRODUCTION

The Ontario Clean Water Agency (OCWA) acts as the operating authority for the Echo Bay wastewater treatment. This document is prepared by OCWA in accordance with Certificate of Approval (CofA) #3-1044-95-006. The report is required to include the following information:

- (i) A summary of all monitoring data including an overview of the success and adequacy of the sewage treatment program;
- (ii) A comprehensive interpretation of all monitoring data and analytical data collected relative to the works during the reporting period and a comparison to the effluent quality and quantity criteria described in condition 1;
- (iii) A summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (iv) A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming a part of the works;
- (v) A description of any operating problems encountered and corrective action taken during the reporting period;
- (vi) A summary of any proposed alteration, extension or replacement in the process or operation of the works to be completed over the next reporting period which may require approval under the *Ontario Water Resources Act*;
- (vii) A tabulation of the volume of sludge generated in the reporting period, and an outline of anticipated volumes to be generated in the next reporting period;
- (viii) An outline of the proposed sludge handling methods and disposal areas to be utilized over the next reporting period; and
- (ix) A summary of the calibration and maintenance procedures conducted on all monitoring equipment

SECTION 2: Description of Facility

Capacity of Facility:	734 m ³ / day (average flow)
Service Area:	Town of Echo Bay
Service Population:	530
Effluent Receiver:	
Major Process:	Rotating Biological Contactor
Facility Classification:	Wastewater Class 2
Collection Classification:	Collection Class 2

SECTION 3: Executive Summary

Sampling parameters were **exceeded** during the 2022 reporting period.

The total effluent discharge from the Sewage Treatment Plant for the year was 98,402.6m³.

The total raw sewage flow into the Sewage Treatment Plant for the year was calculated to be 98,402.6m³.



SECTION 4: Process Data

The facility operator collects samples of raw sewage and sends them to an accredited laboratory for analysis. Raw flows are calculated using flow meter values.

Raw (Influent) Sampling					
Parameter	Frequency	Method	Results		
			Min	Avg	Max
BOD ₅ (mg/L)	Monthly	24hr Composite – External Analysis (Lab)	28	104.4	220
TSS (mg/L)	Monthly	24hr Composite – External Analysis (Lab)	20	120.3	298
TP (mg/L)	Monthly	24hr Composite – External Analysis (Lab)	0.48	2.45	4.92
Flow (m ³ /d)	Daily	V-Notch Flow Meter	0	269.6	1,152.6

The facility operator collects effluent samples and sends them to an accredited laboratory for analysis. Depending on the parameter samples are collected on a weekly or monthly basis. Depending on the parameter samples are collected by a composite sampler or by taking a grab sample.

Treated (Effluent) Sampling		
Parameter	Frequency	Method
CBOD ₅ (mg/L)	Monthly	24hr Composite – External Analysis (Lab)
BOD ₅ (mg/L)	Monthly	24hr Composite – External Analysis (Lab)
TSS (mg/L)	Monthly	24hr Composite – External Analysis (Lab)
TP (mg/L)	Weekly	24hr Composite – External Analysis (Lab)
E.Coli	Weekly	24hr Composite – External Analysis (Lab)
pH	Weekly	Grab – Internal Analysis
Temperature	Weekly	Grab – Internal Analysis
Alkalinity	Monthly	24hr Composite – External Analysis (Lab)
TKN	Monthly	24hr Composite – External Analysis (Lab)
Nitrite	Monthly	24hr Composite – External Analysis (Lab)
Nitrate	Monthly	24hr Composite – External Analysis (Lab)
Unionized Ammonia	Monthly	24hr Composite – External Analysis (Lab)
TAN	Monthly	24hr Composite – External Analysis (Lab)
Flow	Daily	Equal to Raw Flow Rate

Compliance limits are based on monthly discharges for effluent concentrations and effluent loadings. In addition, the effluent is essentially free of floating and settleable solids and does not contain oil or other substance in amounts sufficient to create a visible film or sheen or foam or discoloration on the receiving waters.



Treated (Effluent Discharge) Sampling									
Month	CBOD ₅		BOD		Suspended Solids		Total Phosphorus		E.Coli
	Avg. Eff	Avg. Load	Avg. Eff	Avg. Load	Avg. Eff	Avg. Eff	Avg. Eff	Avg. Load	Avg. Eff
	mg/L	kg/d	mg/L	kg/d	mg/L	mg/L	kg/d	mg/L	CFU/100mL
January	2	0.41	2	0.41	9	1.86	0.103	0.02	7.45
February	2	0.36	2	0.36	8	1.46	0.18	0.03	2
March	5	1.87	6	2.25	19	7.12	0.238	0.09	40.8
April	2	1.02	2	1.02	11	5.61	0.16	0.08	91.1
May	4	1.15	4	1.15	6	1.72	0.24	0.07	25.9
June	6	1.38	6	1.38	5	1.15	0.468	0.11	2.52
July	2	0.44	2	0.44	6	1.31	0.54	0.12	13.9
August	4	0.88	4	0.88	19	4.19	0.78	0.17	263.4
September	2	0.36	2	0.36	8	1.46	1.725	0.31	35.8
October	7	1.56	9	2.01	12	2.68	0.913	0.20	132.1
November	6	1.96	10	3.26	26	8.48	0.92	0.30	343.9
December	2	0.54	2	0.54	5	1.35	0.425	0.12	162.4
Max	7	1.96	10	3.26	26	8.48	1.725	0.31	343.9
Average	4	1.00	4.5	1.17	10.29	3.20	0.544	0.14	94.03
ECA Limit			25	18.4	25	18.4	1.0	0.7	200
ECA Objective			15	11	15	11	0.8	0.56	200

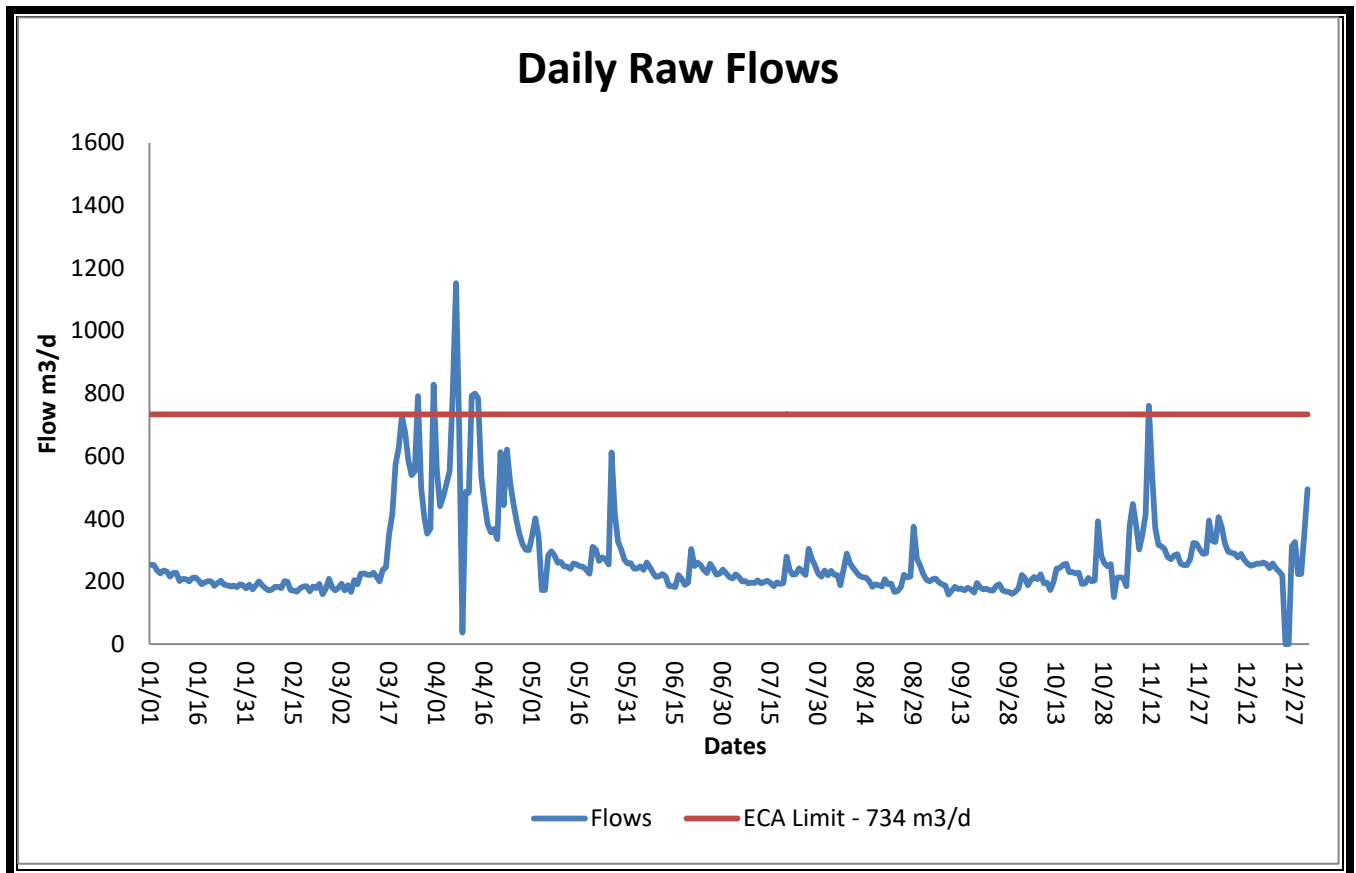
* E.coli average is calculated as a geometric mean

Additional Effluent Monitoring Samples						
Month	pH			Temperature		
	Min	Avg	Max	Min	Avg	Max
January	6.4	6.68	7.01	6.9	8.7	9.6
February	5.97	6.39	6.73	6	7.9	11.1
March	6.24	6.83	7.24	6.7	7.9	9.4
April	6.95	7.10	7.53	8	8.8	11
May	6.35	6.95	7.60	10.1	11.1	12.8
June	6.43	6.90	7.22	10.9	12.9	14.3
July	6.07	6.54	6.94	14.2	15.8	17.4
August	6.88	7.09	7.70	16.1	17.9	20.3
September	6.36	6.97	7.35	14.1	17.7	20.1
October	6.62	6.94	7.32	12.6	14.7	16.5
November	6.60	6.89	7.07	9.7	12.5	14.7
December	6.79	7.10	7.60	8.3	10.3	12.7

The raw and effluent parameters specified in the above tables are analyzed by SGS Lakefield Research, an accredited laboratory located in Lakefield, Ontario.



Flow Volumes				
Month	Total Volume (m ³)	Avg Daily Flow (m ³ /d)	Peak Daily Flow (m ³ /d)	Discharge Volumes (m ³)
January	6,414.2	207.01	253.4	6,414.2
February	5,096.5	182.02	209.1	5,096.5
March	11,613	374.61	828.1	11,613
April	15,299.5	509.98	1,152.6	15,299.5
May	8,901.4	287.14	612.1	8,901.4
June	6,916.8	230.56	303.7	6,916.8
July	6,765.6	218.25	305.2	6,765.6
August	6,837.2	220.55	375.3	6,837.2
September	5,466.3	182.21	223.9	5,466.3
October	6,916.1	223.1	292.5	6,916.1
November	9,781.2	326.04	760.9	9,781.2
December	8,391.8	270.7	464.6	8,391.8
Total	98,402.6			98,402.6
Average		264.77		
Maximum			1,152.6	





Year	Total Raw Sewage Flow m ³ /d	Avg Day Sewage Flow m ³ /d	Max Day Sewage Flow m ³ /d	Avg Day % of Rated Capacity 734 m ³ /d
2022	98,402.6	269.6	1,152.6	37%
2021	83,048.6	227.5	830.7	31%
2020	106,262.1	290.33	1,119.7	40%
2019	97,953.3	268.37	1,270.1	37%

The average flows measured into the sewage treatment plant did not exceed the specified average daily flow of 734 m³/day in 2022.

The average daily flow for 2022 is 269.6/d which is approximately 37% of the rated capacity. The highest recorded peak flow occurred in April (1,152.6 m³/d) and was approximately 157% of the average rated capacity, however the peak flow rate specified in the ECA is 1,418 m³/d. The highest recorded flow was 81% of the peak flow rating.

The total raw sewage flow into the Sewage Treatment Plant for the year was calculated to be 98,402.6 m³.

The total effluent discharge from the Sewage Treatment Plant for the year was 98,402.6 m³.

The average concentrations for CBOD and BOD were all within the compliance and objective limits specified in the facility ECA. Average concentrations were exceeded for TP, TSS and E.coli. The average TP results were above the objective limit in October (0.913mg/L) and November (0.92mg/L) and the average for November (1.725mg/L) exceeded the compliance limits. The average TSS results were above the objective limit in March (19mg/L) and August (19mg/L) and the average for September (26mg/L) exceeded the compliance limits. The monthly geometric mean density for E.coli exceeded the limit of 200 organisms/100mL in August (263.4 organisms/100mL) and November (343.9 organisms/100mL).

The operator did not observe a visible film, sheen, foam or discoloration on the receiving waters nor did he notice floating or settleable solids.

To ensure objective and compliance limits are met, in-house tests are conducted by licensed Operators using Standard Methods. The data generated from these tests are used to determine the treatment efficiency while maintaining process control. All in-house monitoring equipment is calibrated based on the manufactures recommendations. Alum is also used to help lower TSS and TP values.

The monitoring data and analytical test show that the facility is capable of producing high quality effluent. Throughout the reporting period, the flow of sewage into the sewage treatment plant did not exceed the maximum flow of 1,418m³/day at any period of time. Nor did it exceed the annual average flow of 734 m³/day. All average loadings for the above parameters were well within compliance limits. All pH values remained within the range of 6.0 to 9.5 at all times.



SECTION 5: Facility Upsets & Non Compliances

The E.coli for the month of August exceeded the limit prescribed in the facility's ECA with an average of 264CFU/100mL. The UV system was due for maintenance. UV sleeves were ordered and installed to replace the existing old sleeves

The Total Phosphorous for the month of September exceeded the limit prescribed in the facility's ECA with an average of 1.725mg/L. The facility had been running on a reduced number of clarifiers due to an out of service sludge pump. The pump had been recently replaced and the clarifier is having some maintenance performed on it. It is expected that this maintenance and new pump will reduce phosphorous in the effluent.

The Total Suspended Solids and E.coli for the month of November exceeded the limits prescribed in the facility's ECA. It is suspected that the exceedances were a result of a process upset caused by the sludge hauls. Ongoing UV system issues were also a contributing factor to the E.coli exceedance.

On December 23, 2022, the facility PLC failed resulting in a bypass and a spill at the facility. The spill was released onto the facility property and the bypass was release through the regular discharge pipe into Lake George. It is estimated that 50,000L were released. After the PLC was recovered, operations returned to normal.

SECTION 6: Maintenance

Plant maintenance is monitored using a Work Management System (WMS). All monitoring equipment maintenance and calibrations are performed on a monthly basis or as per manufacturer requirements. Flow meter verifications are completed annually; records are maintained on site and electronically on the OCWA Hub server. Maintenance and verification reports are attached as [Appendix A](#). Major maintenance can be found in the table below.

Work Order	Completion Date	Comment
2821893	29-Nov-22	Clarifier pump replacement and cleaning
2963996	10-Aug-22	UV bank bulb replacements
3106257	28-Dec-22	UV system display repair
3109103	28-Dec-22	UV system sensor replacement

For the next reporting period, there are no proposed alterations, extensions or replacements in the process or operation of the works.



SECTION 7: Sludge

Volume of Sludge Hauled

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Volume (m ³)	0	0	0	0	0	0	0	0	0	40	172.6	0	212.6

Lab Results for Sludge Hauled

Parameter	2022 Average Concentration	2021 Average Concentration	2020 Average Concentration
Total Solids	6,010	33,500	44,600
Total Phosphorus	100	1,000	1,800
Total Ammonia	18.7	145	132
Nitrite	0.5	<0.2	<2
Nitrate	<0.3	<0.3	<3
Arsenic	<0.1	0.5	0.8
Cadmium	0.006	0.03	0.046
Cobalt	0.03	0.18	0.34
Chromium	0.11	0.76	1.1
Copper	2.1	14	21
Mercury	0.001	0.005	0.009
Potassium	13	32	41
Molybdenum	0.84	0.18	0.25
Nickel	0.10	0.52	0.82
Lead	<0.1	0.5	0.8
Selenium	<0.1	<0.1	0.2
Zinc	40	82	140

A total volume of 212.6m³ was removed from the Echo Bay WPCP in 2022 and was disposed of at the Hilton Beach Landfill. It is expected that the volume of sludge generated over the next reporting period will be equivalent to the volume generated in 2023.

SECTION 9: Additional Information

There is no additional information to provide for 2022.



Appendix A

Plant Maintenance



On Site Flow Meter Verification Certificate

Oct. 12, 2022

Ontario Clean Water Agency
 148 Fleming Street, Espanola, Ontario P5E 1R8
 Tel - 705-869-5578 Fax - 705-869-4374

Facility Information

Facility Name: Echo bay WWTP
 Address: Echo bay. on
 Contact:

Place of Verification

Company Name: Ontario Clean Water Agency
 Address:
 Contact:

Flow Meter Information

Description: **Effluent sewage flows**

Parshall Flume Type

Manufacturer: Milltronics Model OCM 111
 Serial No. 1800000028
 Hansen I.D. 0000296581
 Max. Permissible Error (MPE): +/- 15.0%

Verification Method. On-line Parshall Flume calculator AJDesigner.com

Construction: Prefabricated throat inbedded in concrete
 Flume type; Parshall
 Throat width: 6 inch

Calibration Points	Flow Meter Measured Value L/S	Depth in mm from bottom.	Calculated Value using on-line calculator L/S	MPE +/- 15%	% MP
1	5.52	68.00	5.72	3.0	96%
2					
3					
4					

Verification Pass: **Passed**

Comments: Consistently accurate

Name (Print): Mark Witty

Signature:

Workorder Summary Report

 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
2593787			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	1/1/22 12:00 AM	1/7/22 12:17 PM	1/7/22 12:17 PM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2593792			5058, Echo Bay WWTP	PM	Refurbish/ Replace/Repair	1	YEARS	Pump Submersible Inspection (1y) 5058	CLOSE	1/1/22 12:00 AM	11/4/22 10:53 AM	11/4/22 10:53 AM	Pump Submersible Inspection (1y) 5058 -Not Executed
2593801			5058, Echo Bay WWTP	PM	Refurbish/ Replace/Repair	1	YEARS	Tank Inspection (1y) 5058	CLOSE	1/1/22 12:00 AM	3/29/22 12:11 PM	3/29/22 12:11 PM	- Tank Inspection complete, no cracks, deterioration or expiries on any of the tanks in or above ground
2593805			5058, Echo Bay WWTP	PM	Inspection	6	MONTHS	UV Reactors Clean/Inspect/Bulb Replacements (6m) 5058	CLOSE	1/1/22 12:00 AM	5/26/22 10:17 AM	5/26/22 10:17 AM	- Cleaned banks A/B with OIT Troy Cooper
2607615	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	1/1/22 12:00 AM	1/31/22 11:44 AM	1/31/22 11:44 AM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2613229			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	1/1/22 12:00 AM	1/4/22 11:28 AM	1/4/22 11:28 AM	- WISKI reviewed for month, all data entered and correct. No issues found.
2614080			5058, Echo Bay WWTP	OPER	Health and Safety	1	YEARS	Workplace Inspection (1y) 5058 - SEE ATTACHED DOC	CLOSE	1/1/22 12:00 AM	1/5/22 02:41 PM	1/5/22 02:41 PM	-Workplace inspection and Supervisor Report complete for 2022
2623636			5058, Echo Bay WWTP	PM	Inspection	3	MONTHS	Gear Drive/Blower Motor Ultrasonic Inspection (3m) 5058	CLOSE	1/1/22 12:00 AM	3/17/22 11:22 AM	3/17/22 11:22 AM	

Workorder Summary Report

 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2640101			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Echo bay WWT. Lake street level alarm	CLOSE		1/29/22 05:00 PM	1/29/22 07:00 PM	-Lake street level alarm. Checked scada and level has shown pump was having a problem pumping and keeping up for the past few days. Checked station and pump was pumping a little bit. It will need to be pulled and serviced. Set high alarm to maximum level. Level drop some and looks like it will hold up till Monday. Notified manager of situation. In the past wastewater would overflow into sewage main and not cause a issue
2646687			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	2/1/22 12:00 AM	2/3/22 08:19 AM	2/3/22 08:19 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2656082	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	2/1/22 12:00 AM	2/28/22 01:34 PM	2/28/22 01:34 PM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required

Workorder Summary Report

 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2660505			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	2/1/22 12:00 AM	2/3/22 08:11 AM	2/3/22 08:11 AM	- WISKI reviewed for month, all data entered and correct. No issues found.
2675933			Echo Bay Wastewater Treatment Plant & Collection System	EMER	Refurbish/ Replace/Repair	0		Lake St. Lift Station pump repair and station clean out	CLOSE		2/1/22 08:36 AM	2/28/22 01:05 PM	-Station clean out using vac truck from Karhi Contracting. Repair of plugged pumps -Assisted in pulling and repairing the two pumps in Lake street lift station. Supplied grinder and tools.
2678703			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Echo bay sewage Lake street high level alarm	CLOSE		2/12/22 05:45 PM	2/12/22 08:00 PM	-Lake street lift station high level alarm. Reset after 20 minutes. Pump must getting plugged again. Pump will need servicing and lead pump may need to be replaced. Cleared alarms. Set alarm set point to highest level.
2680384			Echo Bay Wastewater Treatment Plant & Collection System	EMER	Refurbish/ Replace/Repair	0		Lake St.Lift Station Clean Out	CLOSE		2/22/22 01:18 PM	3/17/22 11:22 AM	-Clean rags and debris from floor of Lake St. station wet well.
2688962			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	3/1/22 12:00 AM	3/11/22 10:20 AM	3/11/22 10:20 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2699448	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	3/1/22 12:00 AM	3/31/22 12:59 PM	3/31/22 12:59 PM	-Critical Alarm dialer test complete. Tested multiple alarms at Plant, Monitoring service called quickly as required.

Workorder Summary Report

 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2704249			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	3/1/22 12:00 AM	3/11/22 10:14 AM	3/11/22 10:14 AM	-WISKI reviewed for month, all data entered and correct. No issues found.
2725223			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Compliance	0		High Equalization Tank - Echo Bay STP	CLOSE		3/19/22 09:30 AM	3/19/22 10:30 AM	- Equalization tank level high, arrived at Plant, lowered start setpoint on main station pumps to 1.4m, Raised alarm set point to 3.00m on Equalizaton tank due to Spring melt and heavy rain in area.
2725228			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Compliance	0		High Level Septic Tank 2 - Echo Bay STP	CLOSE		3/19/22 09:15 PM	3/19/22 10:30 PM	- High Level Spetic Tank 2. Due to heavy rain, melting snow, standing water in ditches because of plugged culverts, Church St. Station has been running hard since Friday. Saturdays Effluent was 578 m3. Adjusting pump setpoints at main station to try and help from causing high levels at Plant.
2727033			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Compliance	0		Septic tank high - Assistance	CLOSE		3/26/22 12:30 PM	3/26/22 03:00 PM	-Called in for back up by ORO

Workorder Summary Report

 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2726779			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Echo bay STP Septic tank high level.	CLOSE		3/26/22 11:00 AM	3/26/22 04:30 PM	-Septic tank high level alarm. Checked actual levels and they were high. Equalization tank high as well. Working with Ryan Harmer we were able to adjust flow into treatment system in order to stop excessive flow from going into septic tanks. Monitored levels and after a couple hours the tanks levels dropped. High level alarm set point is 4.0 m. Alarm system is armed and ready.
2735881			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	4/1/22 12:00 AM	4/13/22 12:32 PM	4/13/22 12:32 PM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2746573	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	4/1/22 12:00 AM	6/2/22 02:13 PM	6/2/22 02:13 PM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2752149			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	4/1/22 12:00 AM	4/8/22 12:23 PM	4/8/22 12:23 PM	- WISKI reviewed for month, all data entered and correct. No issues found.
2761129			5058, Echo Bay WWTP	PM	Inspection	3	MONTHS	Gear Drive/Blower Motor Ultrasonic Inspection (3m) 5058	CLOSE	4/1/22 12:00 AM	6/2/22 02:13 PM	6/2/22 02:13 PM	

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 Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5058*
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 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2773392			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Compliance	0		High Level Church St. Station	CLOSE		4/6/22 05:15 PM	4/6/22 08:00 PM	- Main station level high, adjusted alarm set point higher to accommodate for high flows due to flooding from heavy rain. Adjusted pump level points to activate all 3 pumps at station.
2773364			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Ech bay High septic tank, high equalization tank alarm	CLOSE		4/6/22 08:30 PM	4/6/22 11:55 PM	-High level equalization tank alarm. Flow not going through plant primary clarifiers as it should. High amount of sludge in primary tank #1 slowing the flow down. Cleaned weirs but not much change. Cleaned weirs on primary #2 and flows increased. Flow went from 12.0 to 21-22.0 l/s. Sampled effluent as per managers directions and put in fridge. Rain stopped and church street pump station slowly dropping. Adjusted high level alarm set points 0.2 metres higher to clear alarms. Alarm system is armed and ready.
2773385			Echo Bay Wastewater Treatment Plant & Collection System	CORR	Refurbish/ Replace/Repair	0		5058 Echo Bay STP Primary ClarifierClean out pump failure	CLOSE		4/7/22 02:38 PM	7/11/22 08:46 AM	- Picked up OCWA Vac Trailer to remove sludge from Primary tanks.
2784844			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	5/1/22 12:00 AM	5/4/22 07:47 AM	5/4/22 07:47 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly

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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2795431	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	5/1/22 12:00 AM	6/2/22 02:13 PM	6/2/22 02:13 PM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2800149			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	5/1/22 12:00 AM	5/4/22 07:44 AM	5/4/22 07:44 AM	- WISKI reviewed for month, all data entered and correct. No issues found.
2821893			Echo Bay Wastewater Treatment Plant & Collection System	CORR	Refurbish/ Replace/Repair	0		5058 Echo Bay STP Primary Clarifier Pump Replacement and Cleaning	CLOSE		11/29/22 12:36 PM	11/29/22 12:36 PM	5058 Echo Bay STP Primary Clarifier Pump Replacement and Cleaning -Quote to replace one failed Primary clarifier sludge pump. Clean clarifier with septage truck 5058 Echo Bay STP Primary Clarifier Pump Replacement and Cleaning - WO completed
2823331			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		Loss of UV Bank 1	CLOSE		5/20/22 10:15 PM	5/20/22 11:45 PM	- Call out for loss of UV 1, arrived at plant found UV reading zero, likely due to power issues caused by severe thunderstorms this evening. Reset bank and it resumed operation.
2823334			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		SP-6 Fail - Lake St Lift Station	CLOSE		5/21/22 03:15 AM	5/21/22 05:30 AM	- Call out for high level - Lake St. SP-6 likely plugged. Will turn on emergency back up pump in daylight.
2832135			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	6/1/22 12:00 AM	7/7/22 01:18 PM	7/7/22 01:18 PM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2842362	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	6/1/22 12:00 AM	7/19/22 08:19 AM	7/19/22 08:19 AM	

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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finish	WorkLog Detail
2848654			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	6/1/22 12:00 AM	6/2/22 02:14 PM	6/2/22 02:14 PM	- WISKI reviewed for month, all data entered and correct. No issues found.
2868292			Echo Bay Wastewater Treatment Plant & Collection System	EMER	Refurbish/Replace/Repair	0		Lake st Lift station pump repair/float replacement	CLOSE		6/7/22 08:54 AM	6/7/22 08:55 AM	- Replaced pump float/switch on submersible pump at lift station, high level noticed on SCADA
2882183			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	7/1/22 12:00 AM	7/7/22 01:20 PM	7/7/22 01:20 PM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2882188			5058, Echo Bay WWTP	PM	Inspection	6	MONTHS	UV Reactors Clean/Inspect/Bulb Replacements (6m) 5058	CLOSE	7/1/22 12:00 AM	7/6/22 08:51 AM	7/6/22 08:51 AM	-Cleaned and inspected both UV banks, no issues found
2892803	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	7/1/22 12:00 AM	7/22/22 10:45 AM	7/22/22 10:45 AM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2897697			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	7/1/22 12:00 AM	7/6/22 08:54 AM	7/6/22 08:54 AM	- WISKI reviewed for month, all data entered and correct. No issues found.
2905801			5058, Echo Bay WWTP	PM	Inspection	3	MONTHS	Gear Drive/Blower Motor Ultrasonic Inspection (3m) 5058	CLOSE	7/1/22 12:00 AM	7/22/22 10:48 AM	7/22/22 10:48 AM	- Blower service complete, greased and inspected. Gear drives and bearings on RBCs in good condition, oil and grease for annual service on order.

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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2921395			5058, Echo Bay WWTP	CALL	Refurbish/Replace/Repair	0		5058 Echo Bay power issue blower lock out Alum pump fault	CLOSE		7/20/22 08:45 PM	7/20/22 10:45 PM	-General alarms for alum pump fault, blower lock out etc. Power outage is likely cause of alarms. Possible UPS is not holding power or is faulty in MCC panel. All wastewater levels are normal. Cleared alarms and reset blower system. Checked blower and running normal. Alarm system is armed and ready.
2930253			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	8/1/22 12:00 AM	8/11/22 10:56 AM	8/11/22 10:56 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2940014	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	8/1/22 12:00 AM	8/11/22 11:04 AM	8/11/22 11:04 AM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2944898			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	8/1/22 12:00 AM	8/5/22 01:37 PM	8/5/22 01:37 PM	- WISKI reviewed for month, all data entered and correct. No issues found.
2963992			Echo Bay Wastewater Treatment Plant & Collection System	CAP	Refurbish/Replace/Repair	0		Sludge Pump Installation - Primary Clarifier 2	CLOSE		8/10/22 12:30 PM	11/14/22 11:46 AM	- Purchased plumbing antifreeze for vac trailer
2963996			Echo Bay Wastewater Treatment Plant & Collection System	CORR	Refurbish/Replace/Repair	0		5058 Echo Bay STP UV bank service	CLOSE		8/10/22 12:43 PM	9/1/22 03:11 PM	- UV bank bulb replacement and cleaning.

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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2976625			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	9/1/22 12:00 AM	9/14/22 11:47 AM	9/14/22 11:47 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
2986833	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	9/1/22 12:00 AM	10/13/22 09:52 AM	10/13/22 09:52 AM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
2991767			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	9/1/22 12:00 AM	9/8/22 01:02 PM	9/8/22 01:02 PM	- WISKI reviewed for month, all data entered and correct. No issues found.
3013181	0000296576	ANALYZER UV BANK B SEWAGE EFFLUENT	5058, Echo Bay WWTP	PM	Inspection	0		UV Reactors Clean/Inspect/Bulb Replacements (6m) 5058	CLOSE		10/3/22 03:02 PM	10/3/22 03:02 PM	UV Reactors Clean/Inspect/Bulb Replacements (6m) 5058 -Order 12 new UV bulbs and Sleeves for 2022
3016175	0000296581	METER FLOW SECONDARY EFFLUENT	5058, Echo Bay WWTP	PM	Calibration	1	YEARS	Flow Meter Sec. Effluent Calibration (1y) 5058	CLOSE	11/19/22 12:00 AM	10/12/22 02:12 PM	10/12/22 02:12 PM	- Flow meter using partial flume passed verification test.
3027090			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	10/1/22 12:00 AM	10/6/22 11:55 AM	10/6/22 11:55 AM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
3036814	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	10/1/22 12:00 AM	10/25/22 01:30 PM	10/25/22 01:30 PM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
3041876			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	10/1/22 12:00 AM	10/11/22 12:17 PM	10/11/22 12:17 PM	-WISKI reviewed for month, all data entered and correct. No issues found.

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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3050684			5058, Echo Bay WWTP	PM	Inspection	3	MONTHS	Gear Drive/Blower Motor Ultrasonic Inspection (3m) 5058	CLOSE	10/1/22 12:00 AM	11/4/22 09:12 AM	11/4/22 09:12 AM	Gear Drive/Blower Motor Ultrasonic Inspection (3m) 5058 -Completed WO as U;trasonic motor testing has cause several motor failures.
3063179			Echo Bay Wastewater Treatment Plant & Collection System	CAP	Refurbish/ Replace/Repair	0		5058 - Echo Bay STP - Sludge Hauling	CLOSE		11/14/22 11:46 AM	11/14/22 11:46 AM	- Purchased plumbing antifreeze for vac trailer to winterize after use in cleaning clarifier. 5058 - Echo Bay STP - Sludge Hauling - Ryan Harmar Onsite for Annual Sludge Hauling. Karhi contracting hired direct by Municipality to haul
3075172			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	11/1/22 12:00 AM	11/8/22 02:12 PM	11/8/22 02:12 PM	-Not executed
3084488	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	11/1/22 12:00 AM	11/23/22 10:41 AM	11/23/22 10:41 AM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
3088164			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	11/1/22 12:00 AM	11/1/22 03:28 PM	11/1/22 03:28 PM	- WISKI reviewed for month, all data entered and correct. No issues found.
3105521			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Echo bay WWTP Environmental lift station pump issues.	CLOSE		11/5/22 04:30 PM	11/5/22 07:00 PM	- Called in by manager to fix environmental lift station as pumps were running continuously. Checked station and noted that the start float was hung up and had old grease on it. Untangled float and Cleaned float and reset it. Pumps resumed normal operations.

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3106257			Echo Bay Wastewater Treatment Plant & Collection System	CORR	Refurbish/ Replace/Repair	0		5058 Echo Bay STP - UV light display repair	CLOSE		11/10/22 03:01 PM	11/10/22 03:01 PM	- Redstar Electric on site to assess issue with UV system display panels. Hardwired communication cable to box due to damaged original connector.
3106259			Echo Bay Wastewater Treatment Plant & Collection System	EMER	Refurbish/ Replace/Repair	0		5058 Echo Bay STP - Collection system flushing/community complaint	CLOSE		11/10/22 03:04 PM	11/10/22 03:04 PM	- own office called to report a community complaint of the smell of sewage in the area of 60 Maple St. Checked manholes in area, found slow moving water, not above the bench and some debris. Discussed sewer flushing with Mayor Watson, but wanted to try flushing the sewer with a fire hose from a nearby hydrant. Assisted by Cody Jarrell (Town of Echo Bay public works) flushed sewer for approx. 30 minutes until flowing well in down stream manholes. Will check again next week to ensure proper operation.
3106563			Echo Bay Wastewater Treatment Plant & Collection System	CALL	Refurbish/ Replace/Repair	0		5058 Echo Bay STP - High Level Equalization Tank	CLOSE		11/10/22 01:45 AM	11/11/22 06:00 AM	- Call out for high level Equalization Tank and Septic Tank #1, due to continuous heavy rain, tank exceeded alarm out level. Set largest pump at Church St. as lead to pump station down quicker to allow Equalization Tank to not become overwhelmed. Remaining on site to ensure problem is resolved and levels subsiding.

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3109103			Echo Bay Wastewater Treatment Plant & Collection System	CORR	Refurbish/ Replace/Repair	0		5058 Echo Bay STP - UV system repair	COMP		11/30/22 09:04 AM	1/11/23 03:06 PM	- Troubleshooting and repair of UV system. 5058 Echo Bay STP - UV system repair - New UV sensor Ordered from Trojan UV Operators cleaned UV Trough and bulbs Installed new sensor and tested ok. 5058 Echo Bay STP - UV system repair - UV sensor arrived at Echo Bay Dec 28th 2022
3115478			5058, Echo Bay WWTP	OPER	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5058	CLOSE	12/1/22 12:00 AM	12/6/22 03:01 PM	12/6/22 03:01 PM	- TPM inspection complete at STP. All equipment functioning as required, preventative maintenance performed regularly
3125524	0000296601	PANEL CONTROL ALLEN BRADLEY PANELVIEW 600	5058, Echo Bay WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5058	CLOSE	12/1/22 12:00 AM	12/13/22 02:12 PM	12/13/22 02:12 PM	- Critical Alarm dialer test complete and logged. Tested multiple alarms at Plant. Alarm monitoring service called quickly as required
3129186			5058, Echo Bay WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5058	CLOSE	12/1/22 12:00 AM	12/7/22 11:47 AM	12/7/22 11:47 AM	- WISKI reviewed for month, all data entered and correct. No issues found.