



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Espanola
Water Pollution Control Plant

Annual Operating Report

January 1, 2015 to December 31, 2015

March 30, 2016

Ministry of the Environment
1201 - 199 Larch Street
Sudbury, Ontario
P3E 5P9

**SUBJECT: Espanola Water Pollution Control Plant
200 Bois Street
Espanola, ON
ECA (ECA) #2162-9NYL7Z
2015 Annual Report**

The enclosed 2015 Report for the above-referenced facility summarizes the performance and related activities in accordance with ECA #2162-9NYL7Z; Section 10 a) through j) as follows:

- a) A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, including an overview of the success and adequacy of the Works;*

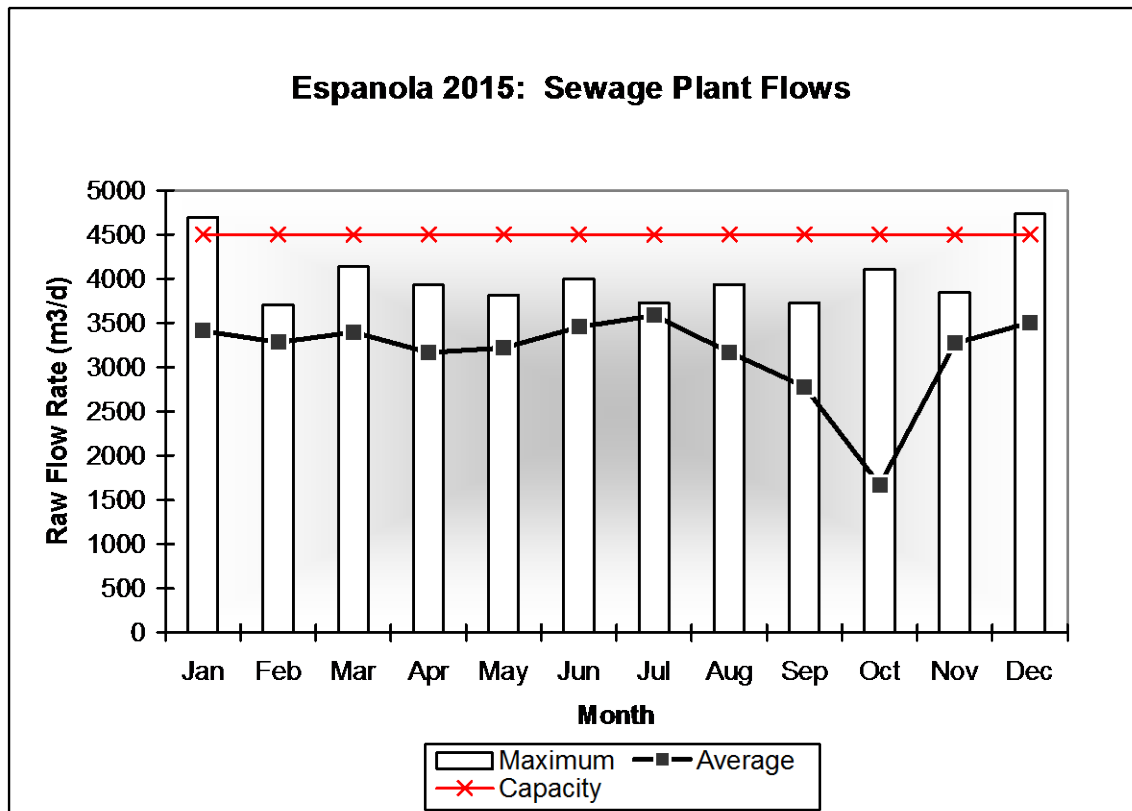
Monitoring Program as per above-referenced ECA's:

Source (Composite)	Parameter	Frequency	Method
Influent	Flow (m3)	Daily	Flow Meter
	BOD ₅ , TSS, TP, TKN	Weekly	External Analysis
	Alkalinity	Weekly	External Analysis
Effluent	Flow (m3)	Daily	Flow Meter
	CBOD ₅ , TSS, TP	Weekly	External Analysis
	E. Coli, Ammonia	Weekly	External Analysis
	PH, Nitrate, Nitrite	Weekly	External Analysis
	Temperature, Alkalinity	Weekly	External Analysis

Based on the above monitoring program, the sewage works provided adequate treatment within the required average daily flows while providing a quality effluent. All analytical results for the 2015 reporting period are attached as *Appendix A* in the PDM report where lab results are uploaded into our program.

2015 Monthly Flow Summary

Month	Monthly Total Flow (m3)	Average Daily Flow (m3/d)	Peak Daily Flow (m3/d)
January	105687	3409.26	4694
February	91870	3281.07	3705
March	105314	3397.23	4134
April	94892	3163.07	3926
May	99836	3220.52	3812
June	103636	3454.53	4000
July	93734	3583	3723
August	98198	3167.68	3935
September	83294	2776.47	3726
October	51775	1670.16	4100
November	98101	3270.03	3843
December	108668	3505.42	4734
Summary		3,158	4,734
TOTAL	1,135,005		



Flows measured into and through the sewage treatment plant did not exceed the specified average daily flow of 4500 m3/day during 2015, based on an annual average as specified in the ECA. The average daily flow for 2015 (3,158 m3/d) was approximately 70% of the

rated capacity. The highest recorded peak flow occurred in **December (4,734 m³/d)** and was approximately **105%** of the average rated capacity, however the peak flow rate specified in the ECA is **12,300 m³/d**. The highest recorded flow was **38%** of the peak flow rating.

2015 Effluent / Influent Data

Source	Parameter	Average	Max	Compliance
Effluent	CBOD5 (mg/L)	3.438	5.6 (Jul)	25.0 (Monthly)
	CBOD5 (kg/d)	9.84	17.46 (Jul)	112.5 (Monthly)
	TSS (mg/L)	7.275	11.4 (Jul)	25.0 (Monthly)
	TSS (kg/d)	21.707	35.546 (Jul)	112.5 (Monthly)
	TP (mg/L)	0.096	0.21 (Jul)	1.0 (Monthly)
	TP (Kg/d)	0.286	0.655 (Jul)	4.5 (Monthly)
	Ammonia	0.569	3.7 (Jan)	10.0 (Monthly)
	Ammonia (kg/d)	1.578	3.73 (May)	45.0 (Monthly)
	TKN (mg/L)	1.183	4.9 (Jan)	
	Alkalinity	25.64	58(Nov)	
	Nitrate (mg/L)	7.82	10.1 (Sept)	
	Nitrite (mg/L)	0.086	0.96 (Jul)	
	E. Coli (cfu/100mL)	8.695	38.71 (Feb)	
	pH	7.29	7.83 (May)	6.5-9.5
	Un-Ionized	0.006	0.09 (May)	
Influent	BOD5 (mg/L)	83.483	123 (Jan)	
	CBOD5 (mg/L)	N/A	N/A	
	TSS (mg/L)	93.758	126.25 (Jan)	
	TKN (mg/L)	15.218	19.5 (Jan)	
	TP (mg/L)	1.548	2.452 (Jan)	
	Alkalinity	93.038	115 (Jan)	

The average concentrations for the above parameters were well within the compliance limits specified in the facility ECA.

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

There were no operating problems encountered during **2015**. Effluent remains within objective limits. The pilot project to dewater the sludge had been scheduled to start in 2015 but was postponed until Spring of 2016.

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

Plant maintenance, including non-scheduled maintenance is monitored using OCWA's Work Management System; a preventative maintenance software program. A summary of maintenance performed is available in *Appendix B*. All routine and preventative maintenance was conducted as scheduled in 2015.

Replacements and improvements were conducted in 2015 as follows:

• Gas Monitor calibrations	1,384\$
• Removal of effluent flowmeter from ECA	5,000\$
• Tipping fees for sludge hauled	1,803\$
• Hoist repairs	3,153\$
• Wiring for new chemical feed system	1,388\$
• Steel garage door install	2,992\$
• UV lamps, sleeves and O Rings	8,186\$
• Replace wire rope on inlet room hoist	1,410\$
• New city permit and indoctrine 4 drivers	1,413\$
• Repairs to bar screen differential level system	2,253\$
• Purchase and install steel stat door for inlet room	11,583\$
• Investigate communication failure on module 3	1,952\$
• Sproket with lockable roller brushing for bar screen	2,027\$
• BOIS Street rebuild	87,412\$

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

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

In-house tests are conducted by licensed Operators for monitoring purposes using Standard Methods and the data generated from these tests is used to determine the treatment efficiency while maintaining process control. All in-house monitoring equipment is calibrated based on the manufactures recommendations.

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

Effluent monitoring equipment was calibrated as required in 2014. Verification records are maintained on site and electronically on the OCWA Hub server. Calibration records are included in *Appendix B* with all other maintenance records.

f) A description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;

The Espanola WWTP is maintained by the Ontario Clean Water Agency. Operators maintaining the facility are licensed per the requirements in O. Reg 129 and perform required maintenance, sampling and monitoring. The system is set to alarm an operator in the event of an emergency situation. The WWTP is enclosed in a secured fenced in area to prevent vandalism.

g) 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 and a summary of the locations to where the sludge was disposed;

A total volume of 3,010 m³ was removed from the Espanola WPCP in 2015 and disposed of at the INCO Sudbury Tailings site. Refer to *Appendix C* for Sludge Quality Data. It is expected that the volume of sludge generated over the next reporting period will be equivalent to the volume generated in 2015.

Sludge is hauled by William Day Construction under ECA # A8911 and disposed of at INCO Sudbury tailings site, under ECA No. 4-0142-88-978 dated August 28, 2000. Refer to *Appendix D* for a Summary of Sludge Hauled for disposal. In June of 2015 the location for delivery changed to Kelly Lake.

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

There were no community complaints in the 2015 reporting period.

i) A summary of all By-pass, spill or abnormal discharge events; and

There were no bypass events to report in 2015.

j) Any other information the District Manager requires from time to time.

There was no additional information required by the District Manager for the 2015 reporting period.

The last MOE Inspection was conducted in March 2010. There were no Required Actions and the facility was found to be in compliance with all applicable legislation.

Best Regards,

A handwritten signature in black ink, appearing to read 'N. Wagar', with a long horizontal flourish extending to the right.

Natalie Wagar
Process & Compliance Technician
Espanola Hub

Appendix A

Performance Assessment Report

Ontario Clean Water Agency
Performance Assessment Report Wastewater/Lagoon

Facility: [5740] ESPANOLA WASTEWATER TREATMENT FACILITY

	01/2015	02/2015	03/2015	04/2015	05/2015	06/2015	07/2015	08/2015	09/2015	10/2015	11/2015	12/2015	<--Total-->	<--Avg-->	<--Max-->	-Criteria-->
Flows:																
Raw Flow: Total - Raw (m³)	105687	91870	105314	94892	99836	103636	93734	98198	83294	51775	98101	108668	1135005			
Raw Flow: Avg - Raw (m³/d)	3409.26	3281.07	3397.23	3163.07	3220.52	3454.53	3583	3167.68	2776.47	1670.16	3270.03	3505.42		3158.2		4500
Raw Flow: Max - Raw (m³/d)	4694	3705	4134	3926	3812	4000	3723	3935	3726	4100	3843	4734			4734	
Eff. Flow: Total - Effluent (m³)	37822	94012	102845	94958	100538	103778	96660	98198	83294	51775	96344	108668	1068892			
Eff. Flow: Avg - Effluent (m³/d)	1220.06	3357.57	3428.17	3165.27	3243.16	3459.27	3118.06	3167.68	2776.47	1670.16	3211.47	3505.42		2943.56		
Eff. Flow: Max - Effluent (m³/d)	3517	3710	4133	3927	3947	4007	3882	3935	3726	4100	3843	4734			4734	
Carbonaceous Biochemical Oxygen Demand: CBOD:																
Eff: Avg cBOD5 - Effluent (mg/L)	5.5	2.75	3.25	3.4	5	3	5.6	2.25	2.6	2.75	2.75	2.4		< 3.438	5.6	25
Eff: # of samples of cBOD5 - Effluent	4	4	4	5	4	4	5	4	5	4	4	5	52			
Loading: cBOD5 - Effluent (kg/d)	6.71	9.233	11.142	10.762	16.216	10.378	17.461	7.127	7.219	4.593	8.832	8.413		< 9.84	17.461	112.5
Biochemical Oxygen Demand: BOD5:																
Raw: Avg BOD5 - Raw (mg/L)	123	107.5	82.5	118	66.25	73.5	71.2	45.75	63.2	93.5	61	96.4		< 83.483	123	
Raw: # of samples of BOD5 - Raw	4	4	4	5	4	4	5	4	5	4	4	5	52			
Total Suspended Solids: TSS:																
Raw: Avg TSS - Raw (mg/L)	126.25	99	83	115	57.75	92.25	107.8	52	124.2	118	76.25	73.6		93.758	126.25	
Raw: # of samples of TSS - Raw (mg/L)	4	4	4	5	4	4	5	4	5	4	4	5	52			
Eff: Avg TSS - Effluent (mg/L)	6	10.25	6.5	6.6	6.5	6.75	11.4	6.5	4.6	7.25	7.75	7.2		7.275	11.4	25
Eff: # of samples of TSS - Effluent (mg/L)	4	4	4	5	4	4	5	4	5	4	4	5	52			
Loading: TSS - Effluent (kg/d)	7.32	34.415	22.283	20.891	21.081	23.35	35.546	20.59	12.772	12.109	24.889	25.239		21.707	35.546	112.5
Percent Removal: TSS - Raw (mg/L)	95.248	89.646	92.169	94.261	88.745	92.683	89.425	87.5	96.296	93.856	89.836	90.217			96.296	
Total Phosphorus: TP:																
Raw: Avg TP - Raw (mg/L)	2.452	1.747	1.563	2.004	1.128	1.44	1.414	0.905	1.31	1.738	1.422	1.454		1.548	2.452	
Raw: # of samples of TP - Raw (mg/L)	4	4	4	5	4	4	5	4	5	4	4	5	52			
Eff: Avg TP - Effluent (mg/L)	0.075	0.09	0.073	0.076	0.11	0.07	0.21	0.06	0.082	0.093	0.068	0.146		< 0.096	0.21	1
Eff: # of samples of TP - Effluent (mg/L)	4	4	4	5	4	4	5	4	5	4	4	5	52			
Loading: TP - Effluent (kg/d)	0.092	0.302	0.249	0.241	0.357	0.242	0.655	0.19	0.228	0.154	0.217	0.512		< 0.286	0.655	
Percent Removal: TP - Raw (mg/L)	96.942	94.85	95.36	96.208	90.244	95.139	85.149	93.37	93.74	94.676	95.255	89.959			96.942	
Nitrogen Series:																
Raw: Avg TKN - Raw (mg/L)	19.5	15.475	13.275	16.18	15.3	14.125	14.98	13.575	14.68	18.2	13.725	13.6		15.218	19.5	
Raw: # of samples of TKN - Raw	4	4	4	5	4	4	5	4	5	4	4	5	52			
Eff: Avg TAN - Effluent (mg/L)	1.725	0.125	0.425	1.14	1.15	0.125	0.44	0.125	0.2	0.325	1.05	0.1		< 0.578	1.725	10
Eff: # of samples of TAN - Effluent	4	4	4	5	4	4	5	4	5	4	4	5	52			
Loading: TAN - Effluent (kg/d)	2.105	0.42	1.457	3.608	3.73	0.432	1.372	0.396	0.555	0.543	3.372	0.351		< 1.528	3.73	10
Eff: Avg NO3-N - Effluent (mg/L)	7.752	8.563	7.895	7.702	5.727	8.3	6.37	8.78	8.848	8.61	6.93	8.366		7.82	8.848	
Eff: # of samples of NO3-N - Effluent	4	4	4	5	4	4	5	4	5	4	4	5	52			
Eff: Avg NO2-N - Effluent (mg/L)	0.083	0.05	0.05	0.068	0.15	0.053	0.342	0.03	0.06	0.03	0.048	0.03		< 0.083	0.342	

Appendix B

Maintenance Summary

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
1504			Espanola Water Treatment Plant	CORR	HEALTH AND SAFETY	0		5758 MCC Room Overhead Temperate Water Leak	CLOSE		8/31/15 02:34 PM	8/31/15 02:34 PM	<p>-There appeared to be a small leak from the elbow of the temperate water pipe running through the MCC room. Leak is near the door to the generator room.</p> <p>-Leak was from a valve in the garage above the MCC room. It has been repaired.</p>
1505	0000227524	SAFETY EYE WASH/ SHOWER SODA ASH HOPPER ROOM	5758, Espanola WTP	CORR	HEALTH AND SAFETY	0		5758 Emergency Eye Washes	CLOSE		2/24/15 10:40 AM	2/24/15 10:40 AM	<p>-The emergency eye wash system is not functioning correctly; the new eye wash stations have low pressure and the tempered water takes a long time to reach the source.</p> <p>Eye wash stations now working</p> <p>-Teflon tape was blocking the water from entering the eye wash. Cleaned out the tape and tested the eye washes. They are now functioning correctly</p>

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
1512	0000207926	ANALYZER FLUORIDE	5758, Espanola WTP	CORR	REFURBISH/REPLACE/REPAIR	0		5758 ANALYZER FLUORIDE REPAIR	CLOSE		1/26/15 11:29 AM	2/24/15 12:59 PM	<p>Probe replacement -Flushed out and cleaned the fluoride analyzer system. Replaced the fluoride reference and pH probes for the fluoride analyzer. Tried to get the system running by using a stock solution for calibration. Was unable to get the analyzer to read the fluoride residual. Will continue work on the system</p> <p>Fluoride Analyzer -Unplugged system, removed probes and inspected wires and connections to analyzer. Performed multiple calibrations using the new probes and old probes in different combinations. Determined new fluoride probe may be unserviceable. Stored old Reference and PT100 probes and decommissioned new Fluoride probe in deionized water for the time being. Performed a single point calibration with new Reference, PT100 and old Fluoride probe. Reading is accurate. Will monitor tomorrow for Fluoride to reach sampling point of analyzer for readings.</p> <p>Fluoride Follow Up -Working good. In-houe calibrations performed. Analyzer OK</p>
1545			5758, Espanola WTP	CORR	REFURBISH/REPLACE/REPAIR	0		5758 Fan Exhaust Soda Ash Room Belt Replacement	CLOSE	1/8/15 02:30 PM	1/8/15 02:30 PM	1/8/15 03:30 PM	<p>Belt Replacement -Removed housing and noticed that the old belt was in poor condition. Replaced this belt with a new one. Tested exhaust fan, it is running well.</p>

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
1546			5758, Espanola WTP	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP Heating System Repair	CLOSE	1/8/15 10:00 AM	1/8/15 04:08 PM	5/6/15 03:03 PM	Day 1 of Heating Investigation -Contractor from Garnets came in to asses the heating system. Temporarily fixed the heaters in the filter room. Need parts for heaters in the filter room and garage. Started investigating the heaters in the basement, will return later. Most heating now working -Heating systems are all working except for the heater in the garage. Waiting on parts to fix this heater.
1705			5758, Espanola WTP	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Lighting Outside Replacement	CLOSE		10/22/15 11:08 AM	10/22/15 11:08 AM	5758 Lighting Outside Replacement -Completed by Barry our electrician.
1707	0000227542	PANEL CONTROL POT PERM PLC	5758, Espanola WTP	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Pot Perm Control Panel Service	CLOSE		1/15/15 12:00 PM	1/15/15 03:00 PM	Started work on the control panel -Pot-perm system is not running in auto. Switching and filling tanks are being done manually. Assisted with connecting a laptop to the PLC to look at the programming to see if there are any problems in the logic. Powered down the PLC to reset. Put system in auto and acknowledged alarms. System now running in auto, will monitor system for any irregular operation. Automatic control now working -Monitored system for the course of one month. System was able to switch between different tanks without any faults. Operators were able to fill all tanks in auto without experiencing any problems. The system is now functioning correctly in auto mode.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
1710	0000142044	FILTER SAND 03	5758, Espanola WTP	CALL	REFURBISH/ REPLACE/ REPAIR	0		5758 Filter Sand Turbidity High	CLOSE		1/18/15 03:45 PM	1/18/15 10:30 PM	High filter turbidities -Called out for high filter turbidities. Upon arrival the plant was off and all filter turbidities were high. Started wasting from the clarifier and put filter discharges in manual. Looking at the raw trending it appears that the flow meters were not normal. Called Keith for assistance. Determined that flow meter was out, unplugged the transducer from the flow meter. Raw flow is set by the LL pump speed therefore raw flows are the same as normal. Put chemical pumps in manual at set dosage rates. Ran manual backwashes on filters 2 and 3 and wasted. Once clarifier blanket was down; opened up the filters and started making water. The turbidity in the filters started coming down nicely. Kept plant in manual till tower was full then shut down the lowlifts and pumps.
1731			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	2/1/15 12:00 AM	3/12/15 01:18 PM	3/12/15 01:18 PM	72 hour reviews -Reviewed 72 hour data for the WTP and the STP. Reviews done via wonderware due to a long weekend for family day.
1732			5758, Espanola WTP	OPER	COMPLIANCE	0		5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	1/1/15 04:42 PM	2/9/15 07:37 PM	2/13/15 02:15 PM	Months end, changed to COMP status -
1735	0000142167	METER FLOW FTFE101 RAW WATER INLET LINE	5758, Espanola WTP	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758, Espanola WTP, METER FLOW RAW WATER REPLACEMENT	CLOSE		6/12/15 09:05 AM	6/12/15 09:05 AM	-Siemens flow meter installed by Spe Mechanical and wired up by Barry Le
1737	0000142051	MIXER 01 CLARIFIER	5758, Espanola WTP	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Follow Up. Monthly TPM - Clarifiers	CLOSE		2/6/15 08:39 AM	2/6/15 08:39 AM	Ordered Pillow Blocks and Bearings from Wajax -Ordered pillow blocks and bearings for Clarifiers. Extended drive shaft bearing beginning to seize on Clarifier 1. Waiting on parts to continue maintenance and replacement of bearing.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
1869			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	2/1/15 12:00 AM	3/4/15 03:19 PM	3/4/15 03:19 PM	Monthly TPM inspeciton went well - <ul style="list-style-type: none"> Chem pumps working well High lift and low lift pumps in good condition Continued maintenance on clarifier #2 Sump pump has been replaced
1874	0000142209	PANEL ALARM/ DIALER	5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	2/1/15 12:00 AM	2/26/15 03:33 PM	2/26/15 03:33 PM	Alarm dialer working well -Tested critical high and low level alarms for the facility. Once they went into alarm a call was recieved from the verbatim.
1878			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY HEALTH AND SAFETY INSPECTION	CLOSE	2/1/15 12:00 AM	2/19/15 10:42 AM	2/19/15 10:42 AM	- <ul style="list-style-type: none"> First aid kit is full with required supplies Eye wash stations and showers are working well Emergency lighting is still being worked on by electrician Haz mat drum is sufficient Fire extinguishers are good
1884			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY SAMPLING AND TESTING	CLOSE	2/1/15 12:00 AM	3/2/15 10:31 AM	3/2/15 10:31 AM	
1986			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	2/1/15 12:00 AM	2/18/15 08:05 AM	2/18/15 08:05 AM	Chlorine analyzer in good condition - <ul style="list-style-type: none"> Chlorine analyzer does not have any loose fittings. No leaks No error messages. Calibrated pH probe using pH buffers of 7 and 10. Added electrolyte to Cl2 probe membrane cap. Cleaned probe cells. Adjusted flow to probes.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
2013			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/SERVICE	CLOSE	2/1/15 12:00 AM	2/23/15 11:31 AM	2/23/15 11:31 AM	All turbidity analyzers working well - <ul style="list-style-type: none"> Cleaned all analyzers. No leaks or bad connections. Treated turbidity analyzer head was showing a fault. Looked in manual and it was called a "Dark Reading Warning" Unplugged the head to reset it and the fault went away. Will monitor the head for more faults. Checked flow rates and did not need to make any adjustments.
2050			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	2/1/15 12:00 AM	2/10/15 11:43 AM	3/4/15 09:18 AM	Plant O&M and Rounds -Plant organizing and clean up. Maximo pilot testing with Jay and Matt.
2181	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP	PM	REFURBISH/REPLACE/REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL ENGINE MONTHLY CHECK	CLOSE	2/1/15 12:00 AM	2/23/15 11:07 AM	2/23/15 11:07 AM	Generator working well - <ul style="list-style-type: none"> Ran generator under load for 1hr Latched and unlatched correctly Coolant heater and engine felt warm fuel levels good No leaks Connections are good Recorded readings
2221	0000142131	BLOWER POSITIVE DISPLACEMENT AIR FILTERS	5758, Espanola WTP	PM	REFURBISH/REPLACE/REPAIR	1	YEARS	5758 ESPANOLA WTP BLOWER POS DISPLACEMENT - ANNUAL	CLOSE	2/1/15 12:00 AM	10/15/15 03:06 PM	10/15/15 03:06 PM	-Blower oil level checked, belts checked.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
2243	0000142045	TANK PROCESS 02 CLARIFIER	5758, Espanola WTP, Process, Primary Sedimentation, Clarifier 2	CORR	REFURBISH/REPLACE/REPAIR	0		5758 Espanola WTP - Clarifier 2 Maintenance	CLOSE		2/24/15 11:09 AM	2/24/15 11:24 AM	Clarifier Maintenance -Ongoing maintenance of clarifiers that include changing gear box oils on 3 of 4 remaning gear boxes. Replace pillow block bearings recently receive from Wajax for both mechanical scraper drive shafts. Waiting on one more belt that was ordered for mechanical mixer drives. Currently in the process of acquring an estimate/ ordering two new automatic motor base tensioners #601 for drive belt motor assemblys.
2281	0000142199	TANK STORAGE TOWER ESPANOLA	5758, Espanola Water Tower, Process	CORR	REFURBISH/REPLACE/REPAIR	0		5758 Tank Storage Tower Heater Repair	CLOSE		6/22/15 03:31 PM	6/22/15 03:31 PM	Fan motor was replaced and tested. Working good -
2294	0000142159	PUMP SUBMERSIBLE SUMP	5758, Espanola WTP	CORR	REFURBISH/REPLACE/REPAIR	0		5758 PUMP SUBMERSUBLE SUMP RECEPTACLE REPAIR	CLOSE		7/29/15 03:01 PM	7/29/15 03:01 PM	Receptacle repaired -Barry repaired the receptacle and tested. Sump pump is now running off his receptacle.
2406			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	3/1/15 12:00 AM	4/7/15 02:57 PM	4/7/15 02:57 PM	All chemical pumps working well -Varified that all chem pumps were working well by doing draw downs. No unusual noises or heat were comin from any of the pumps.
2411			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY HEALTH AND SAFETY INSPECTION	CLOSE	3/1/15 12:00 AM	3/6/15 12:56 PM	3/6/15 12:56 PM	No health and safety problems were found - <ul style="list-style-type: none"> • First aid kit has all required supplies • Eye wash stations and showers are working well • Emergency lighting is still being worked on by electrician • All fire extinguishers are good • Haz mat drum is sufficient
2418			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY SAMPLING AND TESTING	CLOSE	3/1/15 12:00 AM	4/7/15 02:59 PM	4/7/15 02:59 PM	

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
2524			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/SERVICE	CLOSE	3/1/15 12:00 AM	3/6/15 12:45 PM	3/6/15 12:45 PM	Analyzer in good condition - <ul style="list-style-type: none"> Chlorine redsial is stable No leaks or loose fittings pH reading seemed to be droppin and not reading correctly Calibrated pH probe using buffer Flushed lines and adjusted flow pH reading out again -Noticed that the pH reading was very different from the reading on the bench top analyzer. Calibrated the pH probe again. Also, added electrolyte to the Cl2 membrane cap. Adjusted flow when finished.
2551			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/SERVICE	CLOSE	3/1/15 12:00 AM	4/1/15 08:07 AM	4/1/15 08:07 AM	Analyzers cleaned and calibrated - <ul style="list-style-type: none"> Cleaned and inspected analyzers No leaks or loose fittings No error messages Flow rates adjusted after cleaning All analyzers have been calibrate and verified using the 20NTU Ice Pic
2588			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	3/1/15 12:00 AM	4/7/15 03:01 PM	4/7/15 03:01 PM	
2713	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/REPLACE/REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL ENGINE MONTHLY CHECK	CLOSE	3/1/15 12:00 AM	3/19/15 11:42 AM	3/19/15 11:42 AM	Generator ran well under full load - <ul style="list-style-type: none"> Ran generator under full load for 1hr Transferred load correctly Coolant heater felt warm Fuel level good No leaks Recorded readings
2737			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	3/1/15 12:00 AM	4/1/15 08:07 AM	4/1/15 08:07 AM	
2794	0000142050	TANK PROCESS 01 CLARIFIER	5758, Espanola WTP, Process, Primary Sedimentation, Clarifier 1	PM	REFURBISH/REPLACE/REPAIR	1	YEARS	5758 ESPANOLA WTP CLARIFIER - ANNUAL	CLOSE	3/1/15 12:00 AM	8/26/15 09:12 AM	8/26/15 09:12 AM	

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
2881			Espanola Water Treatment Plant	PM	INSPECTION	1	YEARS	5758 ESPANOLA WTP LIFTING EQUIPMENT - ANNUAL	CLOSE	3/1/15 12:00 AM	4/21/15 08:02 AM	4/21/15 08:02 AM	Lifting equipment inspections - Annual lifting equipment inspections were completed in December. Annual work orders will now come out in January.
2896	0000143743	PANEL ALARM/DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	3/1/15 12:00 AM	3/12/15 01:21 PM	3/12/15 01:21 PM	Call received for all critical alarms -
2943			5758, Espanola WTP, Process, Piping and Valves	CORR	REFURBISH/REPLACE/REPAIR	0		5758 Treated Water Pipe Plug Replacement	CLOSE		3/5/15 08:46 AM	6/22/15 03:28 PM	First plug has been replaced -It was noticed that two plugs on the treated water pipe going out to distribution are very corroded and are starting to leak. Before the plugs fail we are replacing them. The first one to be replaced was the plug closest to the wall leaving the building. Second plug has been replaced -
2997			5758, Espanola WTP, Process	CAP	REFURBISH/REPLACE/REPAIR	0		5758 Espanola Chemical Tubing Teflon Purchase	CLOSE		4/13/15 10:40 AM	4/13/15 10:40 AM	Ordered 50ft of teflon tubing for chemical line repairs/replacements. -

Workorder Summary Report

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Location: 5758*

Work Order Type: ADMIN, 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
3069	0000207926	ANALYZER FLUORIDE	5758, Espanola WTP, Process, Process Control and Monitoring, Conditioning	CAP	REFURBISH/REPLACE/REPAIR	0		5758 Espanola WTP Fluoride transducer & pH sensor	CLOSE		6/9/15 11:14 AM	6/9/15 11:14 AM	5042 Nairn WTP - Fluoride Analyzer probe -New fluoride probe purchased and installed, problem with the firmware of the new probe and older analyzer, Analyzer will be sent in for an upgrade to the firmware. (June 2015) 5042 Nairn WTP - Fluoride Analyzer probe MIII Eligible -Continued work on the fluoride analyzer, upgrade of firmware kit and wire new firmware for the analyzer.
3114			5758, Espanola WTP	PM	CALIBRATION	1	YEARS	5758 ESPANOLA WTP - FLOW METER CALIBRATION - ANNUAL	CLOSE	4/1/15 12:00 AM	5/12/15 11:05 AM	5/12/15 11:05 AM	-Assisted Barry with annual flowmeter calibrations. All good.
3134			5758, Espanola WTP, Process	OPER	COMPLIANCE	0		5758 Espanola WTP - Process Adjustment. Low Chlorine	CLOSE		3/21/15 09:30 AM	3/21/15 02:30 PM	Process Adjustment -Received Call from Todd. Chlorine on trending was below 0.80mg/L and pH above 9.50. Upon arrival took DPI and calibrated chlorine analyzer. Chlorine Residual- good. Adjusted Soda trim down 2%. Opened blowdown due to rising blanket in clarifier.
3242			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	4/1/15 12:00 AM	5/6/15 03:47 PM	5/6/15 03:47 PM	- • Varified that all chem pumps are working correctly by performing draw downs • No unusual noise or heat was noticed • Pumps and motors are operating well
3247	0000143743	PANEL ALARM/DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	4/1/15 12:00 AM	4/14/15 09:52 AM	4/14/15 09:52 AM	Verbatim working well -Tested all critical high and low level alarms. Received and acknowledged a call for each alarm.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

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Location: 5758*

Work Order Type: ADMIN, 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
3251			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY HEALTH AND SAFETY INSPECTION	CLOSE	4/1/15 12:00 AM	4/9/15 02:49 PM	4/9/15 02:49 PM	-First aid kit has all the required supplies. All eye wash stations and showers are functioning correctly. Fire extinguishers are all good with the exception of one. Jaz mat drum is sufficient. Currently still waiting for the remaining emergency lighting to be replaced.
3258			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY SAMPLING AND TESTING	CLOSE	4/1/15 12:00 AM	5/6/15 03:47 PM	5/6/15 03:47 PM	
3357			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	4/1/15 12:00 AM	5/6/15 03:39 PM	5/6/15 03:39 PM	Installed new pH probe and calibrated <ul style="list-style-type: none"> Installed new pH probe calibrated using buffers of 7 and 10 Cleaned analyzer body Flushed lines and adjusted flow Calibrated Cl2 to DPD No leaks or loose fittings
3383			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/ SERVICE	CLOSE	4/1/15 12:00 AM	4/16/15 02:52 PM	4/16/15 02:52 PM	Analyzers cleaned and calibrated -Cleaned and inspected all turbidity analyzers. No errors present. Calibrated analyzers using 20NTU ice pic.
3422			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	4/1/15 12:00 AM	5/12/15 09:19 AM	5/12/15 09:19 AM	
3559	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL ENGINE MONTHLY CHECK	CLOSE	4/1/15 12:00 AM	4/27/15 01:42 PM	4/27/15 01:42 PM	Generator serviced by Total Power -Total power serviced generator and tested on full load. Oil, fuel filters and air filter replaced. Generator in good condition. Problem with transferring back to normal. Transfer switch kept flipping between emergency and normal power. Total power is making arrangements to have someone come look at the switch and determine the problem.
3584			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	4/1/15 12:00 AM	5/6/15 03:48 PM	5/6/15 03:48 PM	

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

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Location: 5758*

Work Order Type: ADMIN, 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
3753	0000142680	ANALYZER CHLORINE DISTRIBUTION	5758, Espanola WTP, Process, Process Control and Monitoring, Treated Water	CAP	REFURBISH/REPLACE/REPAIR	0		5758 Analyzer Chlorine Distribution Probe Purchase	CLOSE		10/22/15 11:21 AM	10/22/15 11:21 AM	5758 Analyzer Chlorine Distribution Probe Purchase -Probes were received.
3763	0000143739	FIRE EXTINGUISHER 08 LABORATORY	Espanola Water Treatment Plant	CORR	HEALTH AND SAFETY	0		5758 FIRE EXTINGUISHER RECHARGE REQUIRED	CLOSE		8/31/15 02:38 PM	8/31/15 02:38 PM	-Fire extinguisher was replaced during the annual inspection.
3771			5758, Espanola WTP	OPER	COMPLIANCE	0		5758 Espanola WTP Weekend Check	CLOSE		4/5/15 12:45 PM	4/5/15 02:00 PM	-Plant Check and Inspection. Reviewed past 72 hrs Data and Trending
3884			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	5/1/15 12:00 AM	5/30/15 07:02 PM	5/30/15 07:02 PM	- <ul style="list-style-type: none"> Checked all chem pumps. Did draw downs to confirm that they were functioning. All chem pumps are good except for polymer pump 4. Currently waiting for diaphragm to fix. High lift and low lift pumps are good. No noises, heat or vibration. Backwash pumps working well.
3889	0000143743	PANEL ALARM/DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	5/1/15 12:00 AM	5/28/15 10:58 AM	5/28/15 10:58 AM	Received a call for all critical alarms. -Tested all critical high and low level alarms. Received a call for each one from he verbatim
3893			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY HEALTH AND SAFETY INSPECTION	CLOSE	5/1/15 12:00 AM	5/28/15 10:52 AM	5/28/15 10:52 AM	- <ul style="list-style-type: none"> First aid kit has all the required supplies. All eye wash stations and shower are working well. Fire extinguishers are all good with the exception of one. Haz mat drum is sufficient. New emergency lighting is being installed

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

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Location: 5758*

Work Order Type: ADMIN,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
3900			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	5/1/15 12:00 AM	6/3/15 08:09 AM	6/3/15 08:09 AM	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING -No non-routine sampling conducted in the month of May.
3995			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/SERVICE	CLOSE	5/1/15 12:00 AM	5/30/15 06:59 PM	5/30/15 06:59 PM	Analyzer is good - <ul style="list-style-type: none"> Checked Cl2 against DPD. Lots of slope and was able to calibrate pH reading is accurate. Tested against bench top analyzer which was just calibrated. Adjusted flow No loose fittings or leaks.
4017			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/SERVICE	CLOSE	5/1/15 12:00 AM	5/20/15 10:02 AM	5/20/15 10:02 AM	Cleaned and calibrated - <ul style="list-style-type: none"> Cleaned all turb meters Calibrated all turb meters No leaks Adjusted flows
4047			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	5/1/15 12:00 AM	6/3/15 08:09 AM	6/3/15 08:09 AM	5758 ESPANOLA WTP DAILY O&M ACTIVITIES -All regular O&M activities were performed during regular operating hours on a daily basis.
4175	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/REPLACE/REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL ENGINE MONTHLY CHECK	CLOSE	5/1/15 12:00 AM	5/30/15 06:55 PM	5/30/15 06:55 PM	Issue with transfer switch - <ul style="list-style-type: none"> Tested generator for 1hr on full load Experienced issues with the transfer switch. Was switching between normal and emergency load when trying to turn generator off and return to normal power. Did end up switching back to normal power after a few tries. All other engine specs are good.
4200			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	5/1/15 12:00 AM	5/17/15 11:45 AM	5/17/15 12:15 PM	Long Weekend Review -Reviewed data and trends on Sunday May 17th 2015 via wonderware for past 48hrs.

Workorder Summary Report

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Location: 5758*

Work Order Type: ADMIN,CALL,CAP,CORR,EMER,OPER,PM

Work Order Class:

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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
4421			5758, Espanola WTP, Facilities, Building and Grounds	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP Outside Tap Replacement	CLOSE		6/12/15 10:05 AM	6/12/15 10:05 AM	Outside tap is broken -The tap on the outside of the building that is used by people to fill up water is broken. The side of the tap is split and water is spraying out. Garnets was contacted and someone will be coming to replace the old tap. Tap is fixed -New tap arrived. Garnets came to remove old tap and installed new one. Tested and working well.
4422	0000143709	PANEL CONTROL TRIM-CHLORINE CHEMICAL BOARD	5758, Espanola WTP, Process, Disinfection, Chlorine Systems	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758 Trim Chlorine Line Repair	CLOSE		5/12/15 09:15 AM	5/12/15 09:15 AM	Repaired trim chlorine injection line -While completing rounds noticed that the trim chlorine line downstairs had a pinhole and was spraying water/ chlorine. Isolated the discharge pipe to reduce the pressure to replace the tubing with Teflon tubing. Added new fittings onto the new Teflon tubing. Opened up valves and turned on high lift. Noticed that it was now leaking at the fittings. Isolated again. Old rubber o-ring was slightly stretched. Replaced with new o-ring. Opened valves, turned on high lift and no leaks. Fitting leaking again - While doing rounds, noticed that the fitting was leaking again. Isolated discharge pipe to fix. Line seemed to be too long and was pulling up on the fitting. A small plastic piece that was part of the fitting was also broken. Replaced this with a metal piece. Opened up valves and turned on high lift. Still leaking slightly. Isolated again. Cut tubing again. Opened valve and turned on high lift. No leaking. Will check back again to see if it leaks again. Checked again and no leaks. -Checked Monday and Tuesday morning and no leaks were present.

Workorder Summary Report

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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
4438	0000143751	PANEL CONTROL STERNPAC CHEMICAL BOARD	5758, Espanola WTP, Process, Mixing, Polyaluminium Chloride System	EMER	COMPLIANCE	0		5758 PANEL CONTROL PAC FAILURE	CLOSE	5/20/15 08:00 AM	5/20/15 08:00 AM	6/12/15 10:06 AM	<p>Process Loss Due to Coagulant Pump Fail</p> <p>-Assisted Sarah with process recovery Wasted from clarifiers and filters until turbidity levels were near normal. Notified Keith Stringer, MOH and SAC due to inadequate disinfection from loss of coagulant in system. System back online in normal operating conditions that afternoon.</p> <p>-Arrived at water plant and filter 2 had locked out due to high turbidity. Filter 1 and 3 had not yet reached filter to waste level of 0.3. Locked out low lift and filters. Inspected plant to find issue and found that the sure feed panel did not output pump start up. Reset panel and it selected a pump. Opened blow down valves from filters and turned low lift on to check PAC pump operation. Pumps working and shut of low lift. Continuing to waste from filters. Perry Canning taking over and notifying MOH and SCA for precautionary reasons.</p>
4444			5758, Espanola WTP, Process, Conditioning, Fluoride System	CALL	COMPLIANCE	0		5758 Espanola WTP Fluoride Residual	CLOSE		5/22/15 01:15 AM	5/22/15 02:00 AM	<p>-Called in for Fluoride residual alarm Fluoride system had been turned off at around 14:20 on 5/20/2015. High residual alarm was false. No fluoride was put into the system at any time since being off. Probe malfunction. Reset alarm status and put High Fluoride Residual alarms on disregard</p>

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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
4445			5758, Espanola WTP, Process, Process Control and Monitoring, Waste Handling	OPER	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP Sludge Tank Call Out	CLOSE		5/19/15 04:15 AM	5/19/15 06:00 AM	Sludge Tank Call Out -Received "High Level Alarm" for sludge tanks at Espanola WTP. Upon arrival, visually inspected sudge tanks and levels were not high. Looked on trending via SCADA and determined that the transducer miltronics had incorrectly measured the sludge tank waste depth. Acknowledged alarms and left facility as operations continued normally.
4463	0000227554	PUMP DIAPHRAGM 3380 POLYMER	5758, Espanola WTP, Process, Mixing, Polymer System	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP -PUMP DIAPHRAGM 3380 POLYMER DIAPHRAGM REPLACEMENT	CLOSE		12/22/15 07:58 AM	12/22/15 07:58 AM	Diaphragm purchase -Noticed that the polymer pump had faulted. When pump had been reset it was noticed that it was spraying polymer out the diaphragm rupture port. Shut pump down and inspected. Diaphragm is broken and needs to be replaced. Purchasing one to replace this broken one and another to have on hand. Received and installed -Diaphragms have been recieved and installed.
4566			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	6/1/15 12:00 AM	7/2/15 02:52 PM	7/2/15 02:52 PM	- <ul style="list-style-type: none"> Checked all chem pumps. Did draw downs to confirm that they were functioning.l All chem pumps are good except for polymer pump 4. Still waiting on diaphragm to arrive Backwash pumps working well. High lift and low lift pumps are good. No noises, heat or vibration. Clarifier components have proper amounts of grease
4571	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	6/1/15 12:00 AM	6/24/15 12:42 PM	6/24/15 12:42 PM	Auto dialer called out for all alarms -Tested all critical high and low level alarms. Auto dialer called out for each alarm.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
4575			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY HEALTH AND SAFETY INSPECTION	CLOSE	6/1/15 12:00 AM	6/4/15 08:50 AM	6/4/15 08:50 AM	<ul style="list-style-type: none"> - First aid kit has all the required supplies. - Barry is still working on emergency lighting - All eye wash stations and showers are working well. Pressure is slightly low to some stations. - Fire extinguishers are all good with the exception of one. - Haz mat drum is sufficient.
4582			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	6/1/15 12:00 AM	7/2/15 02:53 PM	7/2/15 02:53 PM	-No non-routine sampling was conducted in the month of June 2015.
4676			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	6/1/15 12:00 AM	7/2/15 03:06 PM	7/2/15 03:06 PM	<ul style="list-style-type: none"> - Calibrated analyzer to DPD. Lots of slope left - checked pH against bench top analyzer. Reading the same value so calibration not needed - No loose fittings or leaks - Adjusted flow
4699			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/ SERVICE	CLOSE	6/1/15 12:00 AM	6/11/15 10:48 AM	6/11/15 10:48 AM	Cleaned and calibrated <ul style="list-style-type: none"> - Cleaned all analyzers - Calibrated all analyzers using 20 NTU ice-pic - Flow adjustments were made to filter analyzers - No leaks or alarms
4729			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	6/1/15 12:00 AM	7/2/15 03:08 PM	7/2/15 03:08 PM	Fluoride Monitoring Check, June 06/15 -Performed in-house manual fluoride test due to fluoride analyzer maintenance. Checked over plant and operations. Fluoride Monitoring Check, June 07/15 -Performed in house test on fluoride concentration due to analyzer maintenance. Checked plant and operations over.

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
4859	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL ENGINE MONTHLY CHECK	CLOSE	6/1/15 12:00 AM	6/24/15 12:58 PM	6/24/15 12:58 PM	Tested generator on full load - • Tested generator for 1hr on full load • Still experiencing issues with the transfer switch. • Did end up switching back to normal power after a few tries. • All other engine specs are good
4884			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	6/1/15 12:00 AM	7/2/15 03:07 PM	7/2/15 03:07 PM	5758 ESPANOLA WTP 72 HOUR REVIEW -72 hour reviews conducted and trended as pr Regulation 170/03.
4970	0000142199	TANK STORAGE TOWER ESPANOLA	5758, Espanola Water Tower, Process	PM	INSPECTION	1	YEARS	5758 ESPANOLA WTP STORAGE TANK ANNUAL	CLOSE	6/1/15 12:00 AM	10/27/15 12:28 PM	10/27/15 12:28 PM	5758 ESPANOLA WTP STORAGE TANK ANNUAL - • Checked and turned on heater. • Valves and piping inside storage tank room look good • Grounds outside tank are good • Rest to be handled by contractor
5103			5758, Espanola WTP	PM	INSPECTION	1	YEARS	5758 ESPANOLA WTP ELECTRICAL EQUIPMENT ANNUAL INSPECTION/SERVICE	CLOSE	6/1/15 12:00 AM	10/22/15 10:42 AM	10/22/15 10:42 AM	5758 ESPANOLA WTP ELECTRICAL EQUIPMENT ANNUAL INSPECTION/SERVICE -No electrical issues apparent

Workorder Summary Report

Report Start Date: Jan 1, 2015 12:00 AM

Report End Date: Jun 30, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
5220	0000207926	ANALYZER FLUORIDE	5758, Espanola WTP, Process, Process Control and Monitoring, Conditioning	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP - Fluoride Analyzer Upgrade	COMP		1/21/16 11:04 AM	1/21/16 11:04 AM	5758 Espanola WTP - Fluoride Analyzer Upgrade - Update firmware on (2) two D1C fluoride analyzers Analyzers would need to be sent back to Metcon have this work completed PROM D1C-C5 FM 05.12 (part # 101788 - Re-installed analyzer controller and wired all probes. Tested . Verified operation against calibration standards
5226	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	CAP	REFURBISH/ REPLACE/ REPAIR	0		Replace main breaker on emergency generator	CLOSE		7/29/15 02:59 PM	7/29/15 02:59 PM	Breaker replaced -Barry replaced the breaker and then tested the generator. It did not have an issues transferring.
5233			5758, Espanola WTP, Process, Conditioning, Fluoride System	OPER	COMPLIANCE	0		5758 Espanola WTP Fluoride residual check	CLOSE		7/17/15 04:29 PM	7/17/15 04:29 PM	-Check up on fluoride residual as the analyzer is OOS and fluoride is being injected.
5244	0000142116	TRANSMITTER PRESSURE 02 FILTER	5758, Espanola WTP, Process, Process Control and Monitoring, Filtration	CAP	REFURBISH/ REPLACE/ REPAIR	0		Filter 2&3 Differential Pressure Transmitters	BUSCOMP		12/17/15 10:43 AM	12/17/15 10:43 AM	Material ordered June 30 from Synerg - Installed and Tested -Nortech was onsite to install the new pressure transmitters. After installation they were tested and no issues were found.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
12336			5758, Espanola WTP	OPER	COMPLIANCE	1	MONTHS	WISKI Review (1m) 5758	CLOSE	11/2/15 12:00 AM	11/24/15 01:18 PM	11/24/15 01:18 PM	WISKI Review -Reviewed WISKI data. No corrections can be made due to MOE inspector having all daily reports and the log book. Operator rounds can't be entered, inspector has round sheets. Corrections and data entries will be made as soon as all documents are back.
13610			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	TPM Inspection/Maintenance (1m) 5758	CLOSE	12/1/15 12:00 AM	12/11/15 10:38 AM	12/11/15 10:38 AM	TPM Inspection/Maintenance - • Checked all chemical pumps • Performed draw downs on each chemical pump • No issues
13615	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5758	CLOSE	12/1/15 12:00 AM	12/11/15 10:06 AM	12/11/15 10:06 AM	Tested all critical alarms -Tested all critical high and low level alarms. A call was received and acknowledged for each alarm.
13619			5758, Espanola WTP	PM	HEALTH AND SAFETY	1	MONTHS	Health And Safety Inspection (1m) 5758	CLOSE	12/1/15 12:00 AM	12/11/15 10:18 AM	12/11/15 10:18 AM	Health And Safety Inspection - • First aid kit has all the required supplies. • All eye wash stations and shower are working well. Pressure is slightly low in soda ash rooms and pot-perm rooms. • Fire extinguishers - all good • Haz mat drum-untouched
13626			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	Non-Routine Sampling (1m) 5758	COMP	12/1/15 12:00 AM	1/4/16 08:54 AM	1/4/16 08:54 AM	No non-routine samples for December -

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
13801			5758, Espanola WTP	PM	CALIBRATION	1	MONTHS	Analyzer Chlorine Inspection/Service (1m) 5758	CLOSE	12/1/15 12:00 AM	12/11/15 10:34 AM	12/11/15 10:34 AM	Analyzer Chlorine Inspection/Service - • Calibrated bench top pH analyzer • Took pH reading of TW to compare analyzer readings. Both reading the same • Did not need to calibrate pH probe in online analyzer. • Verified accuracy of portable and bench top Cl2 analyzers using standards. Both passed. • Online Cl2 analyzer is reading and calibrating well.
13826			5758, Espanola WTP	PM	CALIBRATION	1	MONTHS	Analyzer Turbidity Inspection/Service (1m) 5758	CLOSE	12/1/15 12:00 AM	12/16/15 02:32 PM	12/16/15 02:32 PM	Analyzer Turbidity Inspection/Service - • Cleaned all analyzers • Calibrated using 20 NTU ice-pic • Flushed lines- lots of rust in the water when treated turbidity analyzer was flushed. • Adjusted flows • No issues faults or alarms.
13858			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	Daily O&M Activities (1m) 5758	COMP	12/1/15 12:00 AM	1/4/16 08:53 AM	1/4/16 08:53 AM	Rounds and routine checks completed as scheduled -Any issues captured in corrective work orders
13988	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/REPLACE/REPAIR	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5758	CLOSE	12/1/15 12:00 AM	12/17/15 10:40 AM	12/17/15 10:40 AM	Diesel Generator Inspection/Functional Test - • Performed regular monthly check • Tested on full load for 2.5hr • No loose connections • No irregular noises or heat • Did not have any issues with the transfer.
14013			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	72 Hour Review (1m) 5758	BUSCOMP	12/1/15 12:00 AM	12/27/15 02:41 PM	12/27/15 02:41 PM	Reviewed data for Christmas long weekend -
14074	0000142099	UPS BATTERY BANK	5758, Espanola WTP, Facilities, Power Distribution, Plant	PM	INSPECTION	1	YEARS	Battery Ups Inspection (1y) 5758	COMP	12/1/15 12:00 AM	1/19/16 08:02 AM	1/19/16 08:02 AM	Battery Ups Inspection -Tested, working well.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
14081	0000142186	UPS LOW LIFT	5758, Espanola WTP, Facilities, Power Distribution, Low Lift Systems	PM	INSPECTION	1	YEARS	Battery Ups Inspection (1y) 5758	COMP	12/1/15 12:00 AM	1/19/16 08:03 AM	1/19/16 08:03 AM	Battery Ups Inspection -Tested, battery is working well.
16534			5758, Espanola WTP	OPER	COMPLIANCE	1	MONTHS	WISKI Review (1m) 5758	CLOSE	12/1/15 12:00 AM	12/17/15 08:51 AM	12/17/15 08:51 AM	WISKI Review -Entered required data from round sheets. Corrected data in graphs and added comments. Missing turbidity data from filters on 3 different dates. Contacted IT and they have a calculation to correct.
17564	0000142042	FILTER SAND 01	5758, Espanola WTP, Process, Filtration, Filter 1	CALL	COMPLIANCE	0		Espanola WTP filter #1 high turbidity alarm	CLOSE		12/22/15 11:03 AM	12/22/15 11:03 AM	Espanola WTP filter #1 high turbidity alarm -Received a high turbidity alarm on filter #1 at 4:10am. Went on Wonderware to check on trends and data by which time turbidity had already gone down to 0.170NTU and spike occurred during a backwash cycle. I monitored the process for another 30min using Wonderware by which time the process shut off by itself due to a full clearwell.
5343			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	7/1/15 12:00 AM	7/31/15 11:38 AM	7/31/15 11:38 AM	- <ul style="list-style-type: none"> Checked all chemical pumps by performing draw downs. Two polymer pumps are still down, waiting on parts. High lift and low lift pumps are working well One backwash pump motor has been sent away for repairs. Other pump is good Didn't notice any unusual heat or vibrations
5348	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	7/1/15 12:00 AM	7/29/15 01:46 PM	7/29/15 01:46 PM	Received a call for each alarm -Tested all critical high and low level alarms. Each alarm dialed out and I received a call.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
5352			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY-ANNUAL HEALTH AND SAFETY INSPECTION	CLOSE	7/1/15 12:00 AM	8/6/15 09:49 AM	8/6/15 09:49 AM	- • First aid kit has all the required supplies. • All eye wash stations and shower are working well. • Fire extinguishers are all good • Haz mat drum is sufficient
5359			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	7/1/15 12:00 AM	8/6/15 09:49 AM	8/6/15 09:49 AM	No non routine samples taken in the month of July -
5451			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	7/1/15 12:00 AM	7/2/15 02:59 PM	7/2/15 02:59 PM	- • Checked Cl2 against DPD, was able to calibrate and had lots of slope • pH reading is accurate. No calibration needed. • Adjusted flow • No loose fittings or leaks
5473			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/ SERVICE	CLOSE	7/1/15 12:00 AM	7/15/15 10:10 AM	7/15/15 10:10 AM	Cleaned and calibrated - • Cleaned all analyzers • Calibrated analyzers using 20 NTU ice-pic • Flushed lines and adjusted flows • No leaks or alarms present
5505			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	7/1/15 12:00 AM	8/6/15 09:50 AM	8/6/15 09:50 AM	Rounds and routine checks completed as scheduled -Any issues captured in corrective work orders
5642	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL GENERATOR MONTHLY - ANNUAL CHECK	CLOSE	7/1/15 12:00 AM	7/31/15 11:44 AM	7/31/15 11:44 AM	-Annual check was completed earlier this year by total power. Barry in to change breaker for generator on July 14. Generator was tested on full load for 1hr following this. Transferred without any problems.
5667			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	7/1/15 12:00 AM	8/6/15 09:50 AM	8/6/15 09:50 AM	Reviews conducted on schedule as per Reg 170/03 -

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
5776			5758, Espanola WTP	OPER	COMPLIANCE	3	MONTHS	5758 ESPANOLA WTP QUARTERLY SAMPLING	CLOSE	7/1/15 12:00 AM	8/6/15 09:48 AM	8/6/15 09:48 AM	-Quarterly samples taken on August 4th.
5782			5758, Espanola WTP	OPER	COMPLIANCE	3	MONTHS	6636 MASSEY WTP QUARTERLY SAMPLING	CLOSE	7/1/15 12:00 AM	7/8/15 03:45 PM	7/8/15 03:45 PM	-Quarterly Sampling completed withi compliant timeline.
5808			5758, Espanola WTP, Process, Conditioning, Fluoride System	OPER	COMPLIANCE	0		5758, Espanola WTP, Process, Conditioning, Fluoride Residual Testing	CLOSE		7/17/15 04:29 PM	7/17/15 04:29 PM	-Visit facility to test fluoride residual and verify compliance. Recorded residual in log book.
5811	0000227548	METER LEVEL 3532 POT PERM TANK	5758, Espanola WTP, Process, Process Control and Monitoring, Mixing	CALL	REFURBISH/REPLACE/REPAIR	0		5758, Espanola WTP, Process, Conditioning, POT PERM	CLOSE		7/2/15 11:30 PM	7/2/15 11:30 PM	-Called in for Potassium Alarm. Pot Perm running on tank 3. Level indicator reading 0. Switch over to tank 2 manually and bled som mixture into tank 3 up to 7% for a normal top up and to clear alarm.

Workorder Summary Report

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Location: 5758*

Work Order Type: ADMIN,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
5823	0000142069	PUMPCENT 01 BACKWASH TURBINE	5758, Espanola WTP, Process, Filtration, Backpulse Pumps	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758 Pump Backwash Fail to Start	CLOSE		7/6/15 05:00 PM	7/6/15 06:45 PM	<p>Backwash pump 1 fail to start -Called out for backwash pump 1 failing to start. Reset breaker and reset button on SCADA. Restarted the filter backwash to see if the pump would start. Would not start, tried to manually start the pump. Tripped out again and had an alarm for high temperature. Reset again and tried manually opening valves on SCADA and told pump to start. Could not get it to work. Locked pump out. Started another backwash on the filter to confirm that backwash pump 2 would work. Went through all steps without any issues.</p> <p>5758 Pump Backwash Fail to Start -Remove faulty back wash pump Motor, Drop off at Siemens in Sudbur for repair. Refit new motor set impellers and reset mechanical seal</p> <p>5758 Pump backwash fail to start -Remove drive clutch from motor to allow for rotation test after Nortech rewired motor. refit clutch tested OK</p> <p>5758 Pump backwash fail to start -readjust mech seal. saw it was dripping a bit</p>
5824	0000142148	PUMP SUBMERSIBLE 02 SLUDGE	5758, Espanola WTP, Process, Wastewater Handling	CORR	REFURBISH/ REPLACE/ REPAIR	0		Pump Submersible Sludge Fail to Start	CLOSE		8/24/15 09:53 AM	8/24/15 09:53 AM	<p>Submersible sludge pump will not start -When pump was called to start to draw down the sludge tank it kept tripping the breaker. Tried multiple times to get the pump to start but tripped the beaker each time. Locked it out and now running off other sludge pump. The pump will be pulled and sent in to be repaired.</p>

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

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Location: 5758*

Work Order Type: ADMIN,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
5837	0000142149	PUMP SUBMERSIBLE 01 SLUDGE	5758, Espanola WTP, Process, Wastewater Handling	CORR	REFURBISH/REPLACE/REPAIR	0		5758 Pump Submersible 01 Sludge Fail to Start	CLOSE		7/13/15 11:05 AM	7/21/15 11:05 AM	Submersible pump fail to start -Submersible sludge pump in the sludge tank failed to start. Tried resetting the breaker but pump tripped it right away. Will be pulling pumps and sending them for repair. 5758 Pump submersible 01 Sludge fail to start - Remove failed #1 sludge pump, load and deliver to Xylem in Sudbury Pick up after Repair, reinstall in sump Barry Lee Wired pump Tested OK
5849	0000142680	ANALYZER CHLORINE DISTRIBUTION	5758, Espanola WTP, Process, Process Control and Monitoring, Treated Water	CALL	COMPLIANCE	0		5758, Espanola WTP, Process, CL2 analyzer HIGH READING	CLOSE		7/14/15 03:45 AM	7/14/15 03:45 AM	-Called in for CL2 residual alarm. Plant residual @ 5.00 mg/l on Wonder Ware. Came in and residual was back to normal and analyzer was reading true to DPD @ 1.46 mg/l. SCADA shows analyzer readings are a bit erratic from about 23:15 till 01:15. Was good as leaving the plant.
5850	0000227547	TANK STORAGE 3550 POT PERM	5758, Espanola WTP, Process, Mixing, Potassium Permanganate System	CALL	CALIBRATION	0		5758, Espanola WTP, Potassium Permanganate System LOW LOW alarm	CLOSE		7/15/15 02:50 AM	7/15/15 02:50 AM	-Called in for Potassium Permanganate system alarm @ 22:50 Verbatim said NOW NORMAL. Called again at 23:07 Verbatim said NOW NORMAL. Called again at 23:23 and again was NOW NORMAL. Came in to make sure there were no issues. POT PERM system operating in AUTO and was in fact normal. The alarm was LOW LOW level for tank #2. System was running off of tank #1 and levels of tanks were #1 @ 93%, #2 @ 7%, #3 @ 33%. There was nothing wrong. I checked the alarm set points and found that they were set to alarm at 2 seconds. I changed all LOW and LOW LOW alarm set points to 300 seconds(5 mins).

Workorder Summary Report

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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
6092			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	8/1/15 12:00 AM	8/26/15 09:06 AM	8/26/15 09:06 AM	<ul style="list-style-type: none"> Checked that all chemical pumps were working by performing draw downs. Still waiting on diaphragms for polymer pumps. Didnt notice any unusual heat or vibrations from highlift or lowlift pumps Backwash pump 1 is currently out of service. Waiting on new motor to arrive. Backwash pump 2 is working well.
6097	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	8/1/15 12:00 AM	8/11/15 03:50 PM	8/11/15 03:50 PM	Call received for each alarm -Tested all critical high and low level alarms and received a call for each one
6101			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY-ANNUAL HEALTH AND SAFETY INSPECTION	CLOSE	8/1/15 12:00 AM	8/11/15 03:48 PM	8/11/15 03:48 PM	<ul style="list-style-type: none"> First aid kit has all the required supplies. All eye wash stations and showers are working well. Pressure is slightly low at some stations. Fire extinguishers are all good Haz mat drum has sufficient supplies
6108			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	8/1/15 12:00 AM	8/26/15 09:11 AM	8/26/15 09:11 AM	Quarterly samples taken August 4th

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
6203			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	8/1/15 12:00 AM	8/26/15 09:10 AM	8/26/15 09:10 AM	<ul style="list-style-type: none"> Calibrated portable analyzers and bench top analyzer using standards. Calibrated bench top pH analyzer accurately and calibrating well. Online Cl2 analyzer is reading accurately and calibrating well. pH reading is matching bench top analyzer reading. Do not need to calibrate. No leaks or loose fittings.
6225			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/ SERVICE	CLOSE	8/1/15 12:00 AM	8/19/15 12:19 PM	8/19/15 12:19 PM	Cleaned and calibrated <ul style="list-style-type: none"> Cleaned all analyzers Calibrated using 20 NTU ice-pic Flushed lines to analyzers and adjusted flows No leaks or alarms
6255			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	8/1/15 12:00 AM	8/31/15 02:39 PM	8/31/15 02:39 PM	Rounds and routine checks completed as scheduled -Any issues captured in corrective work orders
6383	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL GENERATOR MONTHLY - ANNUAL CHECK	CLOSE	8/1/15 12:00 AM	8/26/15 08:48 AM	8/26/15 08:48 AM	<ul style="list-style-type: none"> Annual check was already completed earlier this year. Performed regular monthly check Tested on full load for 1hr No loose connections No irregular noises or heat Transferred without any problem
6408			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	8/1/15 12:00 AM	8/31/15 02:39 PM	8/31/15 02:39 PM	-Reviewed data for the civic holiday long weekend. Plant check. Topped up necessary chemicals. Reviews conducted on schedule as per Reg 170/03 -

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
6570			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	YEARS	5758 ESPANOLA WTP FIRE PROTECTION SYSTEM ANNUAL INSPECTION	CLOSE	8/1/15 12:00 AM	8/14/15 02:40 PM	8/14/15 02:40 PM	Completed -Inspection was already completed in June.
6625			5758, Espanola WTP, Process, Conditioning, Fluoride System	OPER	COMPLIANCE	0		5758 Espanola WTP Fluoride residual check	CLOSE		8/6/15 09:53 AM	8/6/15 09:53 AM	8/1/2015 -Checked HFS residual. Checked CL2 Residual. Degassed CL2 system all pumps. 8/3/2015 -Checked HFS residual. Checked CL2 residual.
6798			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	9/1/15 12:00 AM	9/30/15 11:58 AM	9/30/15 11:58 AM	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/MAINTENANCE -Completed Monthly Inspection and Maintenance as required per work order.
6803	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	9/1/15 12:00 AM	9/18/15 07:49 AM	9/18/15 07:49 AM	Tested critical high and low level alarms -Tested all critical high and low level alarms. Received a call for each one.
6807			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	5758 ESPANOLA WTP MONTHLY-ANNUAL HEALTH AND SAFETY INSPECTION	CLOSE	9/1/15 12:00 AM	9/18/15 07:46 AM	9/18/15 07:46 AM	- <ul style="list-style-type: none"> First aid kit has all the required supplies. All eye wash stations and shower are working well. Pressure is slightly low at some stations. Haz mat drum has been untouched. Fire extinguishers are all good
6814			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	9/1/15 12:00 AM	9/30/15 12:05 PM	9/30/15 12:05 PM	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING -There were no non-routine sampling events for the month of September.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
6908			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/ SERVICE	CLOSE	9/1/15 12:00 AM	10/1/15 09:01 AM	10/1/15 09:01 AM	<ul style="list-style-type: none"> Checked accuracy of portable analyzers and bench top analyzer using standards. OK Calibrated bench top pH analyzer accurately and calibrating well. Online Cl2 analyzers are reading accurately and calibrating well. pH reading is matching bench top analyzer reading. Do not need to calibrate.
6931			Espanola Water Treatment Plant	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/ SERVICE	CLOSE	9/1/15 12:00 AM	9/18/15 07:54 AM	9/18/15 07:54 AM	Cleaned and calibrated <ul style="list-style-type: none"> Cleaned all analyzers Calibrated using 20 NTU ice-pic Flushed lines Adjusted flows No leaks or faults
6961			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	9/1/15 12:00 AM	10/1/15 09:03 AM	10/1/15 09:03 AM	Rounds and routine checks completed as scheduled -Any issues captured in corrective work orders
7082	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL GENERATOR MONTHLY - ANNUAL CHECK	CLOSE	9/1/15 12:00 AM	10/1/15 08:57 AM	10/1/15 08:57 AM	<ul style="list-style-type: none"> Performed regular monthly check Tested on full load for 1hr No irregular noises or heat Transferred without any problem No pumps required resetting
7104			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	9/1/15 12:00 AM	10/1/15 09:04 AM	10/1/15 09:04 AM	Reviewed data for labour day long weekend -Data was reviewed while on site to take fluoride residual Reviews conducted on schedule as per Reg 170/03

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
7165			Espanola Water Treatment Plant	PM	INSPECTION	1	YEARS	5758 ESPANOLA WTP LIFTING EQUIPMENT ANNUAL	CLOSE	9/1/15 12:00 AM	11/23/15 01:15 PM	11/23/15 01:15 PM	5758 ESPANOLA WTP LIFTING EQUIPMENT ANNUAL -Hoists were inspected by HITE Services. No issues were found. Pallet jack was inspected and needs to be fixed.
7281			Espanola Water Treatment Plant	ADMIN	COMPLIANCE	3	YEARS	5758 ESPANOLA WTP DWQMS RAW WATER SAMPLING	CLOSE	9/1/15 12:00 AM	9/22/15 02:28 PM	9/22/15 02:28 PM	Collected raw water samples as required for DWQMS -
7398			5758, Espanola WTP, Process, Conditioning, Fluoride System	OPER	COMPLIANCE	0		5758, Espanola WTP, Fluoride System residual check	CLOSE		9/14/15 08:47 AM	9/14/15 08:47 AM	Weekend HFS residual check -Went in to plant to check Fluoride residual on Saturday and Sunday as HFS analyzer is OOS.
7583			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP MONTHLY TPM INSPECTION/ MAINTENANCE	CLOSE	10/1/15 12:00 AM	10/30/15 09:32 AM	10/30/15 09:32 AM	Checked all chemical pumps -Tested that chemical pumps were working by performing drawdowns. Had no issues. - • Didnt notice any unusual heat or vibrations from highlift or lowlift pumps • Backwash pump 1 is currently out of service. Waiting on new motor to arrive. • Backwash pump 2 is working well.
7588	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING	CLOSE	10/1/15 12:00 AM	10/22/15 11:04 AM	10/22/15 11:04 AM	5758 ESPANOLA WTP CRITICAL ALARM/DIALER MONTHLY TESTING -Tested all critical high and low level alarms. Auto dialer called out for each one.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
7592			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	MONTHS	First aid kit has all the required supplies.	CLOSE	10/1/15 12:00 AM	10/22/15 11:32 AM	10/22/15 11:32 AM	First aid kit has all the required supplies. - <ul style="list-style-type: none"> First aid kit has all the required supplies. All eye wash stations and showers are working well. Pressure is slightly low at some stations and not all stations have temperate water. Haz mat drum is untouched. Fire extinguishers are all good
7599			Espanola Water Treatment Plant	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP MONTHLY NON-ROUTINE SAMPLING	CLOSE	10/1/15 12:00 AM	10/23/15 10:22 PM	10/23/15 10:22 PM	Collected lead samples on October 6th -
7697			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/SERVICE	CLOSE	10/1/15 12:00 AM	10/30/15 09:35 AM	10/30/15 09:35 AM	5758 ESPANOLA WTP ANALYZER CHLORINE MONTHLY INSPECTION/SERVICE - <ul style="list-style-type: none"> Calibrated bench top pH analyzer Online pH analyzer reading true to bench top Chlorine analyzer calibrating well, most days reading true to DPD Calibrated portable and bench top Cl2 analyzers.
7722			Espanola Water Treatment Plant	PM	CALIBRATION	1	MONTHS	5758 ESPANOLA WTP ANALYZER TURBIDITY MONTHLY INSPECTION/SERVICE	CLOSE	10/1/15 12:00 AM	10/26/15 07:59 AM	10/26/15 07:59 AM	- <ul style="list-style-type: none"> Cleaned all analyzers Calibrated using 20 NTU ice-pic Flushed lines Adjusted flows No leaks or faults
7754			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	5758 ESPANOLA WTP DAILY O&M ACTIVITIES	CLOSE	10/1/15 12:00 AM	11/3/15 12:38 PM	11/3/15 12:38 PM	-

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
7893	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	5758 ESPANOLA WTP DIESEL GENERATOR MONTHLY - ANNUAL CHECK	CLOSE	10/1/15 12:00 AM	10/30/15 09:40 AM	10/30/15 09:40 AM	- • Performed regular monthly check • Tested on full load for 1hr • No loose connections • No irregular noises or heat • Transferred without any problem
7918			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	5758 ESPANOLA WTP 72 HOUR REVIEW	CLOSE	10/1/15 12:00 AM	10/30/15 09:41 AM	10/30/15 09:41 AM	Reviews conducted on schedule as per Reg 170/03 -
8072			5758, Espanola WTP	OPER	COMPLIANCE	3	MONTHS	5758 ESPANOLA WTP QUARTERLY SAMPLING	CLOSE	10/1/15 12:00 AM	11/4/15 03:15 PM	11/4/15 03:15 PM	Quarterly samples being taken on November 10th -
8078			5758, Espanola WTP	OPER	COMPLIANCE	3	MONTHS	6636 MASSEY WTP QUARTERLY SAMPLING	CLOSE	10/1/15 12:00 AM	11/4/15 02:30 PM	11/4/15 02:30 PM	-Quarterly sampling was completed o schedule.
8791			Espanola Water Treatment Plant	OPER	HEALTH AND SAFETY	1	YEARS	5758 ESPANOLA WTP ANNUAL JHSC INSPECTION	CLOSE	10/1/15 12:00 AM	11/19/15 10:15 AM	11/19/15 10:15 AM	5758 ESPANOLA WTP ANNUAL JHSC INSPECTION -The Annual JHSC Inspection was completed on November 03, 2015 with consultation of Operator/Mechanic Sarah Beaulieu. The JHSC Inspection Checklist report will be scanned and uploaded into Maximo in the near future. C. Massicotte
8836			5758, Espanola WTP	OPER	COMPLIANCE	1	MONTHS	5758 ESPANOLA WTP MONTHLY WISKI REVIEW	CLOSE	10/1/15 12:00 AM	10/22/15 11:25 AM	10/22/15 11:25 AM	5758 ESPANOLA WTP MONTHLY WISKI REVIEW - • All operator rounds have been entered • All corrections are made
9054			5758, Espanola WTP, Process, Disinfection	CAP	COMPLIANCE	0		5758 Espanola WTP chlorine analyzer	COMP		2/18/16 01:44 PM	2/18/16 01:44 PM	5758 Espanola WTP chlorine analyzer -Purchase of a Chlorine Analyzer for the Espanola WTP 5758 Espanola WTP Chlorine analyze -Installed new analyzer in basement o water plant before clear well.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN, 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
9116			5758, Espanola WTP, Facilities	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola WTP Raw Water Sample Pump Purchase	COMP		1/18/16 02:54 PM	1/18/16 02:54 PM	5758 Espanola WTP Raw Water Sample Pump Purchase -Raw water sample pump is no longer working. Purchasing two new pumps, one will replace the broken one and the other will be a spare. 5758 Espanola WTP Raw Water Sample Pump Purchase -Removed old raw water sample pump and replaced with new. Tested Ok
9127			Espanola Water Treatment Plant	CAP	REFURBISH/ REPLACE/ REPAIR	0		5758 Espanola Filter #3 Underdrain Replacement	COMP		12/24/15 09:22 AM	12/24/15 09:22 AM	5758 Espanola Filter #3 underdrain Replacement -Onsite at Plant for Delivery of filter Media 5758 Espanola Filter #3 underdrain replacemnet -Onsite at Espanola WTP with Double T Hydro Vac. Double T contracted to remove old filter media from Filter #3 5758 Espanola Filter #3 Underdrain Replacement -Following Filter media was hydrovac'd out. Remove all bolts and clamps.remove all underdrain baffles. fabricate and bolt Stainless steel angle on both sides of the underdrain trough. Install new rubber gasket strips on floor. Refit underdrain baffles with new gaskets. Reinstall all other equipment. Refill with Filter media 5758 Espanola Filter #3 Underdrain Replacement -Ran multiple manual backwashes and air scours on the filter. Water is still coming out black after the air scour. Will run more tomorrow.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
9190			5758, Espanola Water Tower	CORR	REFURBISH/ REPLACE/ REPAIR	0		5758, Espanola Water Tower, COMMS ERROR	CLOSE		10/28/15 02:30 PM	10/30/15 08:36 AM	-Water tower level stagnated on SCADA. Communication error alarm. Checked Tower and Low Lift Building to see if issue was resetable. Called Bell to start a ticket for comm devices Bell service ticket # 17203687. Issue Resolved -Tech from Bell found issues in lines outside of the tower. Fixed the issues and restored communication. Now able to see tower level on SCADA
9306			5758, Espanola WTP	PM	INSPECTION	1	MONTHS	TPM Inspection/Maintenance (1m) 5758	CLOSE	11/1/15 12:00 AM	11/26/15 03:17 PM	11/26/15 03:17 PM	TPM Inspection/Maintenance - <ul style="list-style-type: none"> Checked all chemical pumps Performed draw downs on chemical pumps All working well No leaks or issues noticed. TPM Inspection/Maintenance - <ul style="list-style-type: none"> Checked LLPs- no leaks or unusual noise/heat Checked HLPs- no issues, oil levels good Backwash pump 2 working well Backwash pump 1 is ready to be installed Clarifiers are good
9311	0000143743	PANEL ALARM/ DIALER CONTROL ROOM VERBATIM	5758, Espanola WTP, Process, Process Control and Monitoring, Plant Systems	PM	INSPECTION	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5758	CLOSE	11/1/15 12:00 AM	11/20/15 12:51 PM	11/20/15 12:51 PM	Critical Alarm/Dialer Testing -Tested all critical high and low level alarms. A call was received for each alarm.

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
9315			5758, Espanola WTP	OPER	HEALTH AND SAFETY	1	MONTHS	Health And Safety Inspection (1m) 5758	CLOSE	11/1/15 12:00 AM	11/4/15 03:29 PM	11/4/15 03:29 PM	Health And Safety Inspection - • First aid kit has all the required supplies. • All eye wash stations and shower are working well. Pressure is slightly low at some stations. • Fire extinguishers - good • Haz mat drum-untouched -
9322			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	Non-Routine Sampling (1m) 5758	CLOSE	11/1/15 12:00 AM	11/24/15 01:27 PM	11/24/15 01:27 PM	
9429			5758, Espanola WTP	PM	CALIBRATION	1	MONTHS	Analyzer Chlorine Inspection/Service (1m) 5758	CLOSE	11/1/15 12:00 AM	11/19/15 01:49 PM	11/19/15 01:49 PM	Analyzer Chlorine Inspection/Service - • Cleaned Cl2 analyzer probe body • Flushed lines • Tried to calibrate pH probe. Would only read 15.45, issue do to wires becoming unplugged from transducer. Put the wires back into the slots inside transducer and was then able to calibrate the analyzer • Let chlorine and pH stabilize then calibrated chlorine residual to DPD • Verified accuracy of portable and bench top chlorine analyzers using standards. • Calibrated bench top pH probe.
9454			5758, Espanola WTP	PM	CALIBRATION	1	MONTHS	Analyzer Turbidity Inspection/Service (1m) 5758	CLOSE	11/1/15 12:00 AM	11/13/15 08:28 AM	11/13/15 08:28 AM	Analyzer Turbidity Inspection/Service - • Cleaned all analyzers • Calibrated using 20 NTU ice-pic • Flushed lines • Adjusted flows • No leaks or faults
9486			5758, Espanola WTP	OPER	INSPECTION	1	YEARS	Daily O&M Activities (1m) 5758	CLOSE	11/1/15 12:00 AM	11/27/15 10:08 AM	11/27/15 10:08 AM	Rounds and routine checks completed as scheduled -Any issues captured in corrective work orders

Workorder Summary Report

Report Start Date: Jul 1, 2015 12:00 AM

Report End Date: Dec 31, 2015 11:59 PM

Location: 5758*

Work Order Type: ADMIN,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
9616	0000142090	GENERATOR ESPANOLA WTP DIESEL	5758, Espanola WTP, Facilities, Power Generation	PM	REFURBISH/ REPLACE/ REPAIR	1	MONTHS	Diesel Generator Inspection/ Functional Test (1m) 5758	CLOSE	11/1/15 12:00 AM	11/26/15 03:03 PM	11/26/15 03:03 PM	Diesel Generator Inspection/Functional Test - <ul style="list-style-type: none"> Tested generator on full load. It shut down after about an hour of running and did not switch over to normal power. Alarm on the generator said it was due to low voltage. Had to reset it and it started back up. It ran fine for another 2hrs. Went to switch it back to normal, the transfer switch kept switching between normal and emergency power. Had to flip the breaker on the generator in order to get it to go back to normal. All other checks were good
9641			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	72 Hour Review (1m) 5758	CLOSE	11/1/15 12:00 AM	11/27/15 10:07 AM	11/27/15 10:07 AM	72 hour reviews taken as per Reg 170/03 -
9784			5758, Espanola WTP	OPER	COMPLIANCE	1	YEARS	DWQMS Risk Assessment Review (1y/3y) 5758	BUSCOMP	11/1/15 12:00 AM	1/19/16 08:04 AM	1/19/16 08:04 AM	DWQMS Risk Assessment Review -Completed with Natalie in 2015

Appendix C

Sludge Quality Analysis Data

Espanola WPCP 2015 Sludge Quality Analysis Data

Parameter	2015 Concentration mg/L	2014 Concentration mg/L	2013 Concentration mg/L	2012 Concentration mg/L	2011 Concentration mg/L
Total Solids	22800	25400	16400	21900	20100
Total Phosphorus	590	170	N/A	520	650
Total Ammonia	86.1	33	8.0	22.7	17.0
Nitrite	1.9	0.5	0.6	1.6	2.8
Nitrate	4.1	0.6	0.6	0.6	1.2
Arsenic	<0.1	<0.1	<0.3	<0.3	<0.3
Cadmium	0.20	<0.005	<0.03	<0.03	<0.03
Cobalt	0.07	0.01	0.07	0.07	0.09
Chromium	0.32	0.07	0.3	0.3	0.3
Copper	11	2.6	9.1	9.5	12
Mercury	0.038	0.004	0.024	0.006	0.006
Potassium	110	88	100	89	120
Molybdenum	0.07	<0.05	<0.1	<0.1	<0.1
Nickel	0.72	0.18	0.6	0.5	0.5
Lead	0.5	<0.1	0.6	0.9	0.6
Selenium	<0.1	<0.1	<0.3	<0.3	<0.3
Zinc	6.8	1.4	4.9	6.3	7.5

Only one sludge sample is required to be taken per year due to the sludge being sent to disposal, keeping in line with the Ministry of the Environment guidelines.

Appendix D

Biosolids Site Report

2015 Biosolids Site Report

Plant Name (Origin of Biosolids): Espanola WPCP		
Site Number: INCO Disposal		
Biosolids Type: Aerobic		
Summary of Biosolids Applied to Site by Month for 2015		
Month	Field Number	Volume of Biosolids Disposed (m ³)
January	INCO Disposal	0
February	INCO Disposal	315
March	INCO Disposal	175
April	INCO Disposal	350
May	INCO Disposal	70
June	INCO Disposal	420
July	INCO Disposal	420
August	INCO Disposal	420
September	INCO Disposal	385
October	INCO Disposal	0
November	INCO Disposal	0
December	INCO Disposal	455
2015 Total	INCO Disposal	3,010