Ontario

Ministry of the Environment
Drinking Water Inspection Report

CREG QUAY LIMITED
WATER TREATMENT SYSTEM
INSPECTION REPORT

INSPECTION DETAILS	
Location:	Creg Quay Limited Water Treatment Plant Lots 20, 21, 22, Concession 1 - South Glengarry Township (formerly Lancaster Township).
Water Works Type:	Treatment With Distribution
Water Works Number:	220008943
Inspection Type:	Announced
Date of Inspection :	2003/07/21
Date of Previous Inspection :	2002/08/27
Inspection Number:	399-1

CONTACT INFORMATION	
Municipality/Owner CREG QUAY LTD. P.O. Box 301, 21236 South Service Road, Bainsville, Ontario K0C 1E0 Attention: Jacqueline Rose Manager Phone: (613) 347-2705 Fax: (613) 347-7514	**Operating Authority** Aquatech Water Management Services Inc.

Inspector:	Donald Munro Cornwall District, Eastern Region (613) 933-7402 Ext. 231	Distribution Date:	2003/10/01

Name and address of other contacts can be found in **Appendix E.**

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APPENDICES

SECTION 1 INTRODUCTION

1.1 INSPECTION OBJECTIVES

The objective of this inspection was to assess compliance with Ministry of the Environment administered legislation and control documents, as well as conformance with Ministry drinking water-related policies for the period spanning the date of the preceding inspection (August 27, 2002) to the date of the inspection that is the subject of this report (July 21, 2003).

Specifically, this assessment includes a review and evaluation of operating practices as they relate to the following documents:

- Drinking Water Protection Regulation (O. Reg. 170/03), made under the Safe Drinking Water Act;
- The Well Regulation (Wells - O. Reg. 903), made under the Ontario Water Resources Act;
- Operator Certification Regulation (Water Works and Sewage Works - O. Reg. 435/93), made under the Ontario Water Resources Act;
- Certificate of Approval;
- Permit to Take Water;
- Previous Ministry inspection report dated August 27, 2002;
- Engineer's Report dated May 31, 2001;
- Annual Compliance Status Report, 2002
- Follow-up correspondence pertaining to the Ministry of the Environment's Annual Compliance Inspection - 2003; and,
- Quarterly Reports dated April, July, and October 2002; and January, April, and July 2003

The ministry has implemented a rigorous and comprehensive approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as water system management practices.

Table 1 **AUTHORIZING AND CONTROL DOCUMENTS REVIEWED**

CERTIFICATE OF APPROVAL		
Certificate #	**Date Issued**	**Description**
3548-5JXQ48	March 5, 2003	Issued to Creg Quay Limited for a ground water supply rated at 492 m^3/d servicing the Creg Quay Development in the Township of South Glengarry located on the shores of Lake St. Francis, consisting of two (2) wells each equipped with a submersible pump, one rated at 342 L/min and one at 315 L/min. A chlorination system is provided for disinfection and two above ground tanks each having capacities of 45, 000 L provide water storage. There are three high lift pumps with rated capacities as follows: one of 80 L/min TDH (lead) and two of 510 L/min at 35 m TDH (lag). Ten 454-liter in-line galvanized steel tanks are used to maintain distribution system pressure while a portable 5.5 kW gasoline powered generator positioned inside the treatment building provides stand-by power.
PERMIT TO TAKE WATER		
Permit #	**Expiry Date**	**Description**
87-P-4044	2004/06/30	The taking of water for municipal purposes from three wells located on Lots 20, 21 and 22, Concession 1, Township of Lancaster (now South Glengarry). The permit is valid until June 30, 2004 with the rate of taking not to exceed 87 Imperial gallons per minute from Well TW81-1 (or 15, 800 Imperial Gallons per day), 69 Imperial Gallons per minute from Well TW92-2 (99,800 Imperial Gallons per day), and 218 Imperial Gallons per minute from Well TW93-3 (313,700 Imperial Gallons per day).

SECTION 2 EXISTING WATER SYSTEM DESCRIPTION

2.1 WATER SOURCE

2.1.1 Creg Quay Water Treatment Plant

One well (TW81-1) currently supplies water to the Creg Quay Water Treatment plant. Two other wells TW 92-2 and TW 93-3 (lots 20, 21 and 22, Conc.1) are described in the existing Permit To Take Water (PTTW) but are not connected to the water supply. Two of the three wells noted above are listed in the current certificate of Approval (Well No's TW 81-1 and TW 92-2 respectively).

Water from TW 81-1 is pumped by a 3.7 kW submersible low lift pump (Myers Model No. 13556) having a rated capacity of 342 L/min when operated against a Total Dynamic Head (TDH) of 27 m; housed in an enclosed well pumping station. The pump discharges to a 150 mm header which splits to feed two 45,000 liter capacity above grade concrete storage tanks.

The low lift header is equipped with a chlorine injection point, sample lines and a flowmeter. Flow, currently measured by a Micronics Ltd. ultrasonic totalizing digital meter clamped to the exterior of the pipe, was previously measured by an in-line totalizing turbine flow meter (Trident 50 mm). The inspector was informed that the turbine flow meter had been replaced due to a malfunction.

Disinfection is provided by a 10-12% Sodium Hypochlorite solution pumped from a 200-L polyethylene tank by a diaphragm metering pump with a rated capacity of 109 L/day at 758 kPa. The hypochlorite pump is interlocked with the low lift pump, injecting sodium hypochlorite solution to the low lift header between the check valve and the flow meter. No additional mixing is provided.

The parallel fed above ground pre-cast storage tanks are located in a building immediately north of the treatment building. Both storage tanks are internally baffled into two compartments with volumes of approximately 15, 000 L and 30,000 L, joined by an opening in the baffle of approximately 300 mm. The inlet header in each tank is a 150 mm PVC pipe with perforations of approximately 10 mm in diameter to distribute water throughout the tank compartments. The tanks discharge by gravity to the high lift pump suction header in the treatment building.

Valving exists to drain the storage tanks by gravity to a floor drain located within the treatment facility. The floor drain discharges to a nearby ditch.

The storage tank inlet headers were required to be modified to increase the effective retention time and baffling factor as part of the upgrading requirements stipulated in Certificate of Approval No. 5365-575LK3, issued in February, 2002. While this work has yet to be completed it was reported that the upgrade will be undertaken in the autumn of 2003.

The second well (TW92-2) listed in both the current C of A (3548-5JXQ48) and the PTTW has yet to be connected to the treatment plant. The same applies to the third well at the water facility - TW93-3 which is described in the PTTW but is not identified in the current C of A.

TW92-2 is rated at 60 IGPM or 99,800 IGPD and TW93-3 is rated at 218 IGPM or 313,700 IGPD. Both of these wells are located north of the water treatment building.

TW92-2 is a 200 mm diameter well drilled to bedrock with a steel upper casing and cap. The cap has also been secured against vandalism. The well is located approximately 35 m north of the treatment building.

TW93-3 is a 250 mm drilled well positioned approximately 50 m north of TW92-2. The well is equipped with steel casing and a secured well cap.

Treated water is pumped to the distribution system by one of three (one lead, two lag) 1.5 kW, 5.5 kW and 5.5 kW centrifugal high lift pumps with rated capacities of 80 L/min at 50 m TDH (lead) and 510 L/min at 35 m TDH (for each of the two lag units). A pressure switch located on the pump discharge header activates pumping.

Pressure in the distribution system is reportedly maintained within a range of 345 to 550 kPa by ten (10) 454-liter capacity in-line galvanized steel pressure tanks positioned within the treatment building.

A motor control center (MCC) in the treatment building controls pump activation. The MCC alarms upon detection of a low level in the storage tanks. If an alarm automatically shuts down the water supply it can only be re-started manually. Storage tank levels are monitored with a

stilling well (column level gauge) in the treatment building. The stilling well is equipped with level sensors to activate the low lift pump(s) and low level alarm.

Creg Quay Limited's treated water distribution system consists of a 50 mm to 150 mm steel, PVC and galvanized piping connected to a 150 mm PVC distribution header. The distribution system includes an emergency by-pass, well pump control valves, isolation valves and sampling taps.

The treatment plant is equipped with a portable 5.5 kW gasoline powered emergency generator located inside the building. The emergency generator, requiring manual start-up, provides power

to the lead (80 L/min) high lift pump only. Low lift pumps, disinfection pumps and plant instrumentation are not supplied with emergency power.

2.2 TREATMENT PROCESSES

The minimum level of treatment required for groundwater source is disinfection. The Creg Quay Water Treatment Plant includes a disinfection system comprised of one 200 L sodium hypochlorite solution tank, two sodium hypochlorite solution feed pumps (one duty, one standby). Disinfection is provided through the use of a 10-12% Sodium Hypochlorite solution delivered by a diaphragm metering pump with a rated capacity of 109 L/day at 758 kPa. The hypochlorite pump, interlocked with the low lift pump, injects sodium hypochlorite solution to the low lift header between the check valve and the flow meter. No additional mixing is provided. Disinfected water is released into the two aboveground pre-cast storage tanks which are fed in parallel.

Details on the treatment process equipment can be found in the facility C of A No. 3548-5JXQ48 included in this document as **Appendix A.**

GPS coordinates for the water treatment plant can be found in **Appendix C.**

2.3 DISTRIBUTION SYSTEM

The drinking-water system has been in operation for over 15 years and serves a population of approximately 200 persons in 90 residences.

The distribution system consists of approximately 3.0 km of 100mm and 150 mm diameter distribution lines and 50 mm diameter laterals of PVC construction. The distribution piping is branched to service individual "courts" of approximately 10 dwellings with each court having a blow-off valve and hose bib at the end.

There are no fire hydrants on the system. No detailed pipe or valve inventory was available.

GPS coordinates for all storage facilities can be found in Appendix C.

2.4 SYSTEM DIAGRAM

A treatment process schematic is available in Appendix F.

SECTION 3 INSPECTION FINDINGS

3.1 OPERATIONS

3.1.1 Source/Supply

Wellhead Assessment

The inspector reviewed the condition of each of the three (3) well supplies existing within the serving the Creg Quay Limited development with respect to their compliance with Regulation 903.

Well No. TW81-1 is located inside the locked water treatment plant. The well casing is raised above the concrete floor at least 0.6 m. The well is maintained in such a way that prevents the entry of any surface water and other foreign materials or contaminants.

A record of the well's construction prepared in 1981 indicates that the well annulus of TW 81-1 was grouted to an unknown depth. This well is currently the sole source of water for the subdivision development.

Wells TW92-2 and TW93-3 are located outside of the water treatment plant and are cemented in their annular space to a depth of between 1.5 metres to 9.1 metres. Both well casings are observed to be at least 250 mm above the surface of the ground. Both wells are equipped with a steel cap cover and are locked to discourage possible vandalism.

The well pump for TW81-1 currently sits on top of the well head. The well head is sealed using a steel plate and gasket installed on top of the casing. A well vent discharges to an exterior wall of the building under which the well is positioned. There was no physical evidence to suggest that water finds its way to the vicinity of the well casing.

A surface drain observed in the floor in front of the pressure tanks was reported to be directed to a nearby ditch. The "as built" drawings confirm this. There was no evidence of obvious nearby contamination sources. The Water Treatment Plant is locked and equipped with an intruder alarm.

No additional well protection measures are required of within the Certificate of Approval other than the requirement to secure the well head of TW92-1.

Permit to Take Water Assessment

PERMIT TO TAKE WATER ASSESSMENT				
PERMIT NUMBER	**RENEWAL DATE**	**SOURCE**	**PERMITTED AMOUNT OF TAKING**	**UNITS**
Insert #	**Insert date**	**Insert source**	**Insert amount**	**Insert units**
81-P-4044	2004/07/06	Well No. TW81-1	87	Imperial Gallons per minute
			125,800	Imperial Gallons per day
		Well No. TW92-2	69	Imperial Gallons per minute
			99,800	Imperial Gallons per day
		Well No. TW93-3	218	Imperial Gallons per minute
			313, 700	Imperial Gallons per day

Currently, Creg Quay Water works is only using production well TW 81-1 for its water supply. The remaining two wells TW 92-2 and TW 93-3 listed on the permit have not yet been placed into service.

As water usage increases in the development the amount of water taking from TW 81-1 has begun to approach the maximum permitted value. No development should be permitted in phase 2 until TW 92-2 is connected to the water treatment plant.

The Creg Quay Water Treatment Plant Permit issued July 6, 1994, authorizes the taking of water from three wells - TW 81-1, TW92-2 and TW93-3 on Lots 20, 21 and 22, Concession 1 in the Township of Lancaster now the Township of South Glengarry. The rate of taking shall not exceed 87 Imperial Gallons per minute from well TW81-1 or 125,800 Imperial Gallons per day.

The permitted rate of taking from TW 92-2 is 69 Imperial Gallons per minute or 99,800 Imperial Gallons per day. TW93-3 has a permitted rate of taking of 218 Imperial Gallons per minute or 313,700 Imperial Gallons per day. The PTTW expires June 30, 2004.

There are no special terms and conditions imposed under this permit other than the routine measurement and reporting requirements listed under the General Terms and Condition 3 clause (b) and (c). Records were to be submitted to the Director annually commencing in 1995, on or before the thirty-first day of March during each year of water taking or until the Director has given notice in writing that these submissions are no longer required. Water taking record submission omissions occurred in 2002 and 2003.

The permit holder shall measure and record daily water takings and shall ensure copies of these records are kept at the offices of Creg Quay Limited, Bainsville, Ontario with a copy to be kept on-site at the water taking location until this Ministry requests them to be submitted or states otherwise.

No water shall be taken under authority of this Permit after June 30, 2004. An application for an amended water taking permit must be submitted to the Technical Support Section of this Ministry at least three months before the permit expires.

Daily water takings are being recorded. There are no binding water use restriction By-laws in effect for this system, however, it is reported that a notice is circulated to all residents that water conservation should be practiced during periods of warm weather, especially during the summer months.

A copy of the PTTW can be found in Appendix B.

3.1.2 Treatment Process

The minimum level of treatment required for true groundwater sources is disinfection. The Creg Quay Water Treatment Plant incorporates a disinfection system consisting of one 200 L sodium hypochlorite solution tank, two sodium hypochlorite solution feed pumps (one duty, one standby). Disinfection is achieved through the injection of a 10-12% Sodium Hypochlorite solution to the low lift header between the check valve and the flow meter. No additional mixing is provided.

With the exception of the newly installed flow monitoring unit all of the equipment in the water works appears to match descriptions conveyed within the existing Certificate of Approval. The Ministry requires that equipment upgrades be documented in the next Engineer's Evaluation Report. Any time the Development is contemplating changes to the existing equipment the Ministry's Cornwall Area Office should be notified in writing letter of the planned changes.

TREATED WATER CAPACITY ASSESSMENT			
ITEM	**2001**	**2002**	**2003***
Avg. Day Flows m^3/day	101	98.6	121.6
Max. Day Flow m^3/day	424	330.0	204.8
Rated capacity m^3/day	492	492	492
% (maximum Day/Rated Capacity)	86.2	67.1	41.6

** Treated water flows for January, February and March were not available as a result of the flow meter malfunctioning, therefore these figures were calculated only on an average of three months April, May and June, 2003*

The plant's rated capacity is contained in Certificate of Approval No. 5365-575LK3 and No. 3548-5JXQ48.

In 2001, the total treated water flows for the Creg Quay Water Treatment Plant were reported to be as follows: the average day flow was 101 m^3/day, and the maximum day flow was 424 m^3/day. These values, although they appear to be consistent with previous annual flow values calculated in 1999 and 2000, were reported to by the present operator to be suspect due to a malfunctioning flow meter.

In 2002, the maximum day flow for the drinking-water system was 67.1% of its rated design capacity. The water works has reportedly only operated at 41.6 % of its rated capacity during the first six months of 2003.

Wide variation in maximum day flows recorded in 2001, 2002, and the first six months of 2003 suggests that the owner should assess the need to increase the treatment plant's capacity by connecting one of the approved water wells currently not in service. This action would provide an additional source of water for the development to ensure adequate water quantity is available to the residents. It is recommended by this Ministry that no homes be constructed in Phase 2 of the development until Well TW 92-2 is connected to the water treatment plant.

The above information was obtained from the 2002 Annual Summary of Flows and the Second Quarter Compliance Report for 2003.

Flow metering instrumentation is calibrated on an annual basis as required by Certificate of Approval No. 3548-5JXQ48 Condition No. 2. 1 (b). Regular instrumentation calibrations are included in the plant's Preventative Maintenance Program. The most recent calibrations were performed on April 24, 2003 on the Raw water flowmeter, the Prominent chlorine recorder, the Honeywell recorder and the ABB turbidimeter by Endress and Hauser. The new treated water flow meter was calibrated on its date of installation (February 20th 2003) by Greyline Instruments Inc.

Additional raw water meters will need to be installed at the time that wells TW92-2 and TW93-3 are brought into service. Copies of the calibration certificates are contained in Appendix **G.**

Disinfection procedures are satisfactory at this water supply and comply with Procedure B13-3 and the Certificate of Approval. The operator is aware of the required CT but it is not used in daily process controls calculations.

It is reported that no raw or partially treated water can be conveyed around key treatment units.

The water supply features a continuous free chlorine residual analyzer located at the water treatment plant and daily free chlorine residuals within the distribution system are recorded manually at the marina operation to comply with O. Reg. 170/03.

An alarm system monitored by Glengarry Alarms has also been provided to ensure continuous disinfection by the chlorinator unit. The alarm must be reset manually.

Continuous monitoring equipment is capable of measuring chlorine residuals with the required accuracy as outlined in Condition 2.1 (e) of the current Certificate of Approval.

The owner provided the inspector with evidence indicating that all chemicals used in the treatment process and all materials contacting the water meet the AWWA Standard B300-92 (Sodium Hypochlorite) and ANSI/NSF Standard 60 standards in accordance with the C of A.

The operating authority has not developed plans to address cross-connections at the water works by installing back flow preventors or check valves.

The Ontario Drinking Water Systems Regulation and Certificate of Approval # 3548-5JXQ48 set the sampling requirements for the Creg Quay Limited Water Works.

No pesticides are applied or stored around over or in the immediate vicinity of the water system (well heads, treatment facilities, or storage areas).

All floor drains located in the water treatment plant are discharged to a nearby ditch. The water discharges from the gland seals of the low lift pumps are discharged to building drains which empty into an adjacent ditch.

All discharges from the on-line analyzers and the three high lift pumps at the water treatment plant are directed to building drains directed to a nearby ditch.

A turbidimeter is installed on the outlet of the water storage facility is measured in NTUs.

Fluoridation is not practiced at this water supply.

Finally, despite the fact that the water supply owners had experienced problems in securing an appropriate operations contractor to operate and manage this water supply, treatment plant and distribution system the waterworks remains in satisfactory condition and appears to be well maintained.

3.1.3 Process Wastewater

The small volume of process waste water associated with this water works is not treated prior to discharge but instead are emptied directly to a nearby ditch. No significant impacts are expected as a result of these discharges as this wastewater consists generally of cooling water discharges from the low lift pumps and the discharge of on-line analyzers.

No records of process wastewater monitoring are maintained and none are required by the Certificate of Approval.

3.1.4 Distribution System

Maintenance Programs

Our review of the maintenance programs for the Creg Quay distribution system revealed that there are few formal maintenance programs in place for this distribution system since it was constructed. The operating authority is responsible for repairs to the system, system flushing and leak detection on a case by case basis.

The "as built" plans for the system in place are available at both the Creg Quay Limited office and the water treatment plant.

All standards or procedures for design, material selection, and plumbing code requirements to maintain integrity of the system are reported to adhere to current OPSS standards and are generally arranged by the Development's Consulting Engineer of choice.

Flushing, disinfection and testing of new and repaired water mains is normally supervised by staff from the operating authority. Disinfection is generally conducted in accordance with proven procedures to the standards as presented (i.e. AWWA C651-99 Standard for Disinfecting Water Mains, AWWA C652-92 for storage facilities and C653-97 for Water Treatment Plants and C654-97 for Wells installation, repair and monitoring).

There are no formal programs for flushing and swabbing of water mains as per AWWA standards. Distribution System flushing is reported to be performed annually.

The Development reports that no formal by-laws exist pertaining to water conservation, however, residents are sent a written notice advising them to conserve water during warm weather conditions.

There is no residential metering on the distribution system however but two meters are in use for the restaurant and marina operations to assess their water usage.

Storage Structure and Booster Station Assessment

It is reported by the operating authority that all interior and exterior storage tanks and reservoirs are cleaned annually.

3.2 WATER SYSTEM MANAGEMENT PRACTICES

3.2.1 Operational Manuals

An updated operations manual is reported to be under development by the owner's new operations contractor (Aquatech) to include the new Creg Quay Water Treatment Plant's flow meter and is scheduled to be completed by the autumn of 2003. It is recommended that the new manual contain the following elements:

- up-to-date, as-built plans of the water system with special attention given to last revision date of the plans versus the current C of A date to confirm that the plans reflect modifications that have been made to the works throughout its operational life;
- Information on the raw water source;
- plant unit operations;
- storage and transmission considerations;
- a process to ensure that all equipment used in the processes is monitored, inspected and evaluated;
- a monitoring plan including processes to vary sampling schedules such that sampling is not only done during optimal conditions (e.g. low demand periods);
- identification, notification and corrective actions for adverse drinking-water conditions; and,
- procedures for the disinfection and repair of water mains.

When completed, a copy of the operations manual should be located in the offices of the Development and at the Water Treatment Plant.

3.2.2 Logbooks

A review of the facility's operations log revealed that all required information concerning the operation of the facility (raw and treated water flows, well pump usage, chlorine residuals, turbidity readings, chemical dosages, any repairs and maintenance performed) is recorded. The identity of the person acting as the Operator-In-Charge (OIC) is also documented in the log book. However, entries are made randomly, not daily and not always chronologically. Entries are made according to the visits of Aquatech staff.

Chlorine residuals for the distribution system are recorded at the Marina. No distribution system free chlorine residual measurements were made January 2003 as the portable chlorine analyzer

was reportedly broken and only the continuous chlorine analyzer unit was operational.

Two log books are kept; one for the chlorine residuals recorded by Envirosearch (a firm retained to perform the sampling); and the other for the plant maintenance activities. The maintenance log sheet documents areas such as maintenance program requirements and actual maintenance performed.

A record of time spent by each individual at the waterworks is also maintained so that an annual roll-up of the time spent at the facility, or as the Operator-In-Charge can be retrieved as required by Section 20 of the Operator Licencing Regulation (O. Reg 435/93).

Log books are maintained in the water treatment plant at the operator's station and are available since the water plant was commissioned.

All operational testing as required by Schedule 7 of O. Reg. 170/03 is conducted by either certified operators or continuous monitoring equipment. In addition, it is reported that only certified operators make adjustments or repairs to treatment equipment.

3.2.3 Contingency and Emergency Planning

Contingency plans have been developed by the new operations contractor Aquatech Water Management Services Inc. as a result of a recommendations made in the proceeding compliance inspection report. A copy of this plan is included in Appendix I.

The Contingency Plan contains a series of Standard Operating Procedures (SOPs) addressing:

1. *STEPS TO ACTIVATE GENERATORS DURING A POWER OUTAGE*

2. *ADVERSE TESTING AND OTHER PROBLEMS -PROCEDURES*

IMPROPER DISINFECTION
TURBIDITY
CHLORINE RESIDUAL
E-COLI OR FECAL COLIFORMS
TOTAL COLIFORMS
BACKGROUND COLONY COUNTS ON TOTAL COLIFORM MEMBRANE FILTER
HETEROTROPHIC PLATE COUNT

SODIUM
CHEMICAL AND RADIOLOGICAL PARAMETERS
HEALTH-RELATED PARAMETERS IN AN APPROVAL OR AN ORDER
PESTICIDE NOT LISTED IN SCHEDULE 2 OF O. REG 169/03

3. APPENDICES ADDRESSING:

Notices of adverse drinking water quality (BOIL WATER ADVISORY)
Notices of a return to acceptable water (RESCINDING BOIL WATER ADVISORY)
The Aquatech Emergency phone list
Ontario Drinking Water Quality Standards - O. Reg. 169/03 (schedule 1, 2 and 3)
Notices to conserve water during warm weather conditions

The Contingency Plan was found to lack the following elements:

- Instructions in the event of a well pump failure;
- Instructions in the event of high lift pump failure;
- An assessment of the availability of key equipment in the event of emergency or upset conditions;
- An assessment of the treatment facility's ability to meet the required demand with the largest unit out of service; and,
- Procedures for the notification of the Director should the Overall-Responsible-Operator be unavailable for a period in excess of sixty days.

3.2.4 Security

Storage facilities are concrete covered, with no outside air vents accessible to vandals. All access to the main components of the water treatment plant and wellheads are now locked and inaccessible to the public. The treatment plant site has been provided with an intruder alarm and is visited daily by Creg Quay Staff. Consequently, the risk of sabotage to the water system is considered minimal.

3.2.5 Communication with Consumers

A system has been adopted to document steps taken to determine the cause of consumer complaints and actions taken to resolve the problem. A complaint form is used to monitor these issues.

An active "Creg Quay Homeowners Group" routinely monitors water facility operations and regularly liaises with the developer to ensure that the water works are suitably maintained.

The most commonly documented complaint is associated with the odour of chlorine in the water.

One component of the inspection included a review of public records that are required to be maintained under section 12 of O. Reg. 170/03. The review revealed that the following documents are available during normal business hours at both the water treatment plant and Creg Quay offices.

- All of laboratory analytical reports pertaining to samples collected in compliance with section 7 of O. Reg. 170/03;
- All relevant approvals;
- Quarterly Reports prepared under section 12 of O. Reg. 459/00 (to be replaced by Annual Reports required by O. Reg. 170/03); and,
- A copy of the Ontario Drinking Water Standards (O. Reg. 169/03).

Operators advised the writer that the process used to communicate the availability of reports to consumers is as follows:

(i) Regular communiques in the water bills sent by the Development.

(ii) The Development regularly liaises with a water works committee comprised of homeowners.

(iii) Significant announcements prepared by the Creg Quay Development and the Homeowners group are either disseminated through the use of flyers, the media, or local newspapers.

3.2.6 Operator Certification and Training

A list of all operators and their certification details is provided in Appendix D.

The plant facility classification certificate (Class 1 plant certificate, dated 21/01/1997), is posted on an interior wall of the Creg Quay water treatment plant.

Operator certificates are posted in the Water Treatment Plant at the operator's station and control area.

Jean-Pierre Azzopardi is the operator charged with the overall responsibility for this water supply

system. He has the appropriate level of certification for this type of facility.

The following is a list of the staff involved with the operation of this facility and the details of their level of licensing.

***Jean-Pierre Azzopardi P.Eng - Creg Quay Operations Manager*/Operator in Charge**

WDS Class 2 Licence # 14555, Expiry Date: August 31, 2004
WTS Class 4 Licence # 14684, Expiry Date: September 30, 2006

Charles Eric Noel - Operator in Charge

WDS OIT # OTI9913, Expiry Date : April 30, 2006
WTS OIT # OTI9912, Expiry Date: April 30, 2006

(ii) Training

Training records for only part of 2003 were assessed as part of the facility evaluation. All of the operators have reportedly attained at least the minimum required annual hours of training as dictated by Subsection 17 (1) of O. Reg 435/93. A copy of their training records is included in Appendix D.

All facility staff members are aware of, and have been trained in the use of contingency measures.

There have been no circumstances recorded wherein the person responsible for overall operation of the facility was unable to act since the preceding inspection was performed. However, should Jean -Pierre Azzopardi be unable to act, the responsibility falls to Charles Eric Noel, the operator in charge.

SECTION 4 WATER QUALITY MONITORING & ASSESSMENT

4.1 WATER QUALITY MONITORING

Water quality requirements for the Creg Quay Water Supply are dictated by the current Certificate of Approval and O. Reg. 459/00 until June 1, 2003 when O. Reg.170/03 came into effect.

Condition No. 2 of Certificate of Approval 3548 - 5JXQ48 outlines the monitoring and recording program for the water works. Samples from the raw water, treated water and distribution system must be collected and sampled for the parameters described in the Certificate of Approval, Schedule 2 of Ontario Regulation 459/00 (Sampling and Analysis Requirements) and after June 1st, 2003 Section 7 of O. Reg 170/03.

In addition to the routine sampling program, on-site testing is performed once a day for turbidity and the free chlorine residual of the treated water.

A review of monitoring data amassed between August 2002 and April 2003 has confirmed that microbiological water quality meets the Ontario Drinking Water Quality Standards (ODWQS).

With respect to the chemical water quality, it has not changed substantially since the inspection of August 27, 2002. The Creg Quay Water Supply still experiences elevated levels of sodium in the treated water.

Condition No. 2.1 (f) of C of A # 3548-5JXQ48 indicates that once a year, raw water and treated water samples shall be collected and analyzed for parameters as listed in Schedule 2, Sampling and Analysis Requirements of Ontario Regulation 459/00 as amended from time to time for Table 1, Table 3 and Table 4 of the "Ontario Drinking Water Standards". This is being done and the results are included in Appendix G.

Analytical test results clearly indicate that all chemical parameters, with the exception of sodium, meet the Ontario Drinking Water Quality Standards.

The sampling and analysis requirements for a groundwater source as prescribed by Schedule 2 of Ontario Regulation 459/00 are as follows:

- Microbiological samples must be taken at least once per week from the raw water (from each well) and from the treated water. A minimum of 10 samples (i.e. 8 plus 1 per thousand of population served) must be taken monthly in the distribution system; with at least one such sample taken every week.

- Turbidity of treated water shall be measured through a grab sample collected each day or through the use of a continuous analyzer.

- Free chlorine residual shall be monitored by taking a grab sample daily from the treated water or through the use of a continuous analyzer. Furthermore, free chlorine residual must

be read at each sample location whenever a bacteriological sample is collected from the distribution system.

- Fluoride shall be monitored annually.
- Treated water samples must be collected for Table B (Volatile Organics) once every quarter, with trihalomethanes being collected quarterly in the distribution system at a point reflecting the maximum residence time in the distribution system.
- Nitrates/nitrites are sampled for quarterly.
- Table D (Pesticides and PCB) once monitored for every quarter.
- Inorganics (Table C) are sampled every three years.
- Lead is analyzed for annually in the distribution system at a point reflecting the maximum residence time in the distribution system.

Please note that as of June 1, 2003, the preceding monitoring schedule dictated by O. Reg. 459/00 has been replaced by a similar, but not identical, monitoring program directed by O. Reg. 170/03.

The owner submits samples for analysis to Accutest Enterprises Inc., which is accredited by the Standards Council of Canada.

From August, 2002 to June 30, 2003 an average of four (4) treated water samples per month and eight (8) distribution samples (two per week) were collected each month and submitted for microbiological analysis; thus meeting the minimum requirements of 8 samples per month to be collected in the Development's distribution system.

All weekly microbiological results from August 2002 to April 2003 were reviewed; as were all of the Quarterly Reports prepared in compliance with Section 12 of O. Reg. 459/00. Those information sources confirm that free chlorine residual readings are taken at the same locations where the microbiological samples are collected from the distribution system. The free chlorine residuals recorded on the distribution system varied as follows 0.60 mg/L to 1.58 mg/L. All residuals noted were well above the minimum recommended level of 0.2 mg/L. The extremities of the distribution system are sampled on a weekly basis.

At the time of the inspection tests were performed on treated water samples gathered from the Creg

Quay water treatment plant and distribution systems.

The following chlorine residuals were recorded using MOE field equipment:

1) Creg Quay Water Treatment Plant and Distribution System

i) Plant: Free chlorine 0.92 mg/L, Total chlorine 1.40 mg/L

ii) Distribution System:

Cameron Court - Free chlorine 1.17 mg/L, Total chlorine 1.71 mg/L
McRae Court - Free chlorine 1.01 mg/L, Total chlorine 1.22 mg/L
Wilkinson Court - Free chlorine 1.10 mg/L, Total chlorine 1.14 mg/L

A review of treated water chlorine residuals from August 2002 to June 2003 revealed that the free chlorine residuals varied from a low of 0.60 mg/L to a high of 1.58 mg/L. The total chlorine residuals varied from a low of 0.84 mg/L to a high of 1.69 mg/L.

The owner collects samples from both raw water of wells on a weekly basis as required and prior to any treatment processes. Turbidity samples are collected monthly as required.

In-house tests are performed weekly on treated water samples for turbidity and free chlorine residual and for free chlorine residual in the distribution system. The treated water turbidity recorded on the day of the inspection was 0.19 NTUs.

The Creg Quay Water Treatment Plant has continuous analyzers to monitor treated water free chlorine residual (Audiometric) and turbidity (ABB) of the treated water. Turbidity samples varied from 0.19 NTU to 0.38 NTU between August 2002 and June 2003.

It was observed that an acceptable tap with a smooth nozzle exists from which raw water samples are obtained before disinfectant is added.

No shutdowns of greater than 60 days were reported at this water supply since the last inspection period.

4.2 WATER QUALITY ASSESSMENT

4.2.1 Bacteriological

An analysis of water quality data for samples gathered from August 2002 through June 2003 revealed that approximately 47 treated water samples were collected from the water treatment plant and 84 from the distribution system. No adverse samples were reported during this time frame. Free chlorine residuals ranged from a high of 1.58 mg/L to 0.60 mg/L.

A total of 47 samples were collected from the raw water source. Heterotrophic Plate Count (HPC) analyses were only commenced in July 2003; background colonies were analyzed to that point.

Audit samples were collected by the Ministry during the course of the inspection. Those samples were gathered from treated water near the point at which it is discharged from the water plant, the raw well water of TW81-1, and the community distribution system from two locations. The treated water samples yielded no detections of E Coli or Total Coliforms, Background /or HPC counts were less than 10 cfu/ml. No adverse microbiological samples were encountered.

The results of the microbiological audit sampling of the raw water for well TW81-1 indicated the absence of E. Coli and Total Coliform contamination on the date the inspection was performed. Appendix H contains the Ministry's audit sample results.

4.2.2 Physical/Chemical

With respect to chemical/physical audit sampling, grab samples were collected of raw water at well TW 81-1 and the treated water at the water treatment plant.

The raw water from well TW 81-1 was sampled for turbidity, fluoride, calcium, hardness, magnesium, sodium, potassium, hardness, phosphorous and the nitrogen compounds (nitrite, nitrate and Total Ammonia Nitrogen).

Raw water turbidity and sodium values for the well were 3.16 FTU and 86.6.8 mg/L respectively. In addition, hardness (not a health related parameter) exceeded an operational guideline.

The aesthetic objective for iron in drinking water is 0.3 mg/L and for manganese is 0.05 mg/L. Excessive levels of iron and manganese can cause staining in laundered goods and a bitter

astringent taste in water. These parameters were found in concentrations below their aesthetic

objectives.

The analytical results for the treated water audit sample indicated that the treated water from the Creg Quay Water Treatment plant met all ODWQS physical/chemical/water quality indicators on the date of the inspection with the exception of Sodium (88.8 mg/L) which is a health related objective and hardness (245 mg/L) which is not a health related objective.

Drinking water samples drawn from the distribution system by the operating authority were submitted for lead analyses in July, September, and December 2002 and once in June 2003. All samples were satisfactory and met ODWS standards.

No incidents of treated water turbidity exceedances were recorded in 2002. However, elevated points of turbidity were observed on the chart in May 2003. This situation was reportedly caused by frequent start-ups of the second high lift pump which causes a turbulence inside the pipes causing false readings. A back pressure valve has also been installed to assist in resolving the problem. No further incidents have been recorded.

There were no instances of free chlorine residuals of less than 0.05 mg/L recorded within the distribution system and conversely no instances of free chlorine residual concentrations greater than 4.0 mg/L noted. The maximum free chlorine residual recorded by the operating authority between June 2002 and April 2003 was 1.58 mg/L and the minimum was 0.60 mg/L. The average free chlorine residual recorded was 1.09 mg/L.

The maximum combined chlorine residual recorded was 1.69 mg/L and the minimum was 0.84 mg/L. The average combined chlorine residual was 1.27 mg/L.

4.2.3 Reporting, Notification & Corrective Action

Reporting requirements for the Creg Quay Waterworks are not only dictated by Condition 4.0 of the current C of A (3548-5JXQ48) which requires a written report detailing compliance with all terms and conditions of the Certificate to be completed annually, but also by Sections 11 & 12 of O. Reg. 459/00. As previously noted, O. Reg. 459/00 was revoked and replaced by O. Reg. 170/03 on June 1, 2003. The latter regulation contains reporting requirements which differ from those imposed within O. Reg. 459/00.

Notification requirements are outlined fully in Condition No. 3.7 of the C of A (3548-5JXQ48) which state that the owner must establish notification procedures to be used to contact the local Medical Officer of Health, the Ministry, and other relevant authorities in the case of an emergency.

Notification is required for all indicators of adverse water quality as per section 8 of O. Reg. 459/00.

Furthermore, O. Reg. 459/00 dictates that the Director of the Ministry's Laboratory Services Branch must be notified of the identity of laboratory service providers. This information has been provided to the Ministry and a copy of the appropriate documents is contained in Appendix K.

A review of the Ministry's Integrated Divisional System (IDS) information source confirmed that not all the Quarterly Reports were prepared and submitted within 30 days of the end of each quarter as required. The Quarterly Report for the First Quarter of 2002 was submitted late due to changes in the operating contractors.

The Quarterly Reports should have included a summary of treatment chemicals used including the average dosage rates together with special references to any abnormal usages. Under the new Drinking Water Systems Regulation (O. Reg. 170/03) proclaimed June 1, 2003 Quarterly Reports have been replaced by Annual Reports.

SECTION 5 ASSESSMENT OF PREVIOUS INSPECTION ISSUES

5.1 NON COMPLIANCE WITH REGULATORY REQUIREMENTS

The following previous "actions required" were outlined in the 2002 compliance inspection report.

1. *This water works is subject to Ontario Regulation 459/00, Therefore, the owner shall meet all of the requirements of the Drinking Water Protection Regulation O. Regulation 459/00.*

The current owner has now engaged a new operations manager for the water supply system which they anticipate will address all of the previous 459/00 regulatory concerns. Please note that the promulgation of O. Reg. 170/03 changes some operational requirements that existed previously under O. Reg. 459/00.

2. *Condition No. 5.1 (a) of the current Certificate of Approval (5365-575LK3) requires that a hydrogeological study be undertaken by the owner to establish whether or not the groundwater source is under the direct influence of surface water and that an appropriate report be submitted to the Director by May 31, 2002. This action has not been completed to date and as a result the*

waterworks is out of compliance with their Certificate of Approval.

This work was completed on November 20, 2002 and a hydrogeological report was filed in regard to the potential surface water influence on the subdivision's well-supply. None of the three development's production wells: TW81-1, TW92-2 and TW93-3 are deemed to be under the direct influence of surface water and the existing Certificate of Approval (5365-575LK3) was amended in March, 2003 by Certificate of Approval No. 3548-5JXQ48 to reflect this current condition.

3. *In addition, Condition No. 9.1 (change of ownership) of the current C of A requires that the Owner shall notify the Manager of the local District Office of the Ministry within 30 days, in writing, of a change of operating authority. The operating authority has changed two times in 2002 and no correspondence has been received to date by the Cornwall Office.*

The appropriate correspondence was received in the Ministry office and is on file.

4. *Under section 3 (Operations and Maintenance), Section 5 (Upgrading Requirements and section 9 (Change of Ownership) of the current Certificate of Approval, there are numerous conditions listed which the owner is required to comply with in respect of the operation of this water works.*

It was apparent during our inspection that not all requirements stipulated under Condition Nos. 3.7, 3.8, 3.9, 3.10, 3.11, 3.13, 3.14, 5.2, 5.3, 5.4 and 9.1 were being adhered to by the owner. The owner should review each of these conditions and provide the Ministry with a report on their current status and how they propose to achieve and implement each of these conditions.

5. *A compliance report (submitted March 25, 2002) has been completed for 2001, however, the information required in Condition 4.1 (c) of the current Certificate of Approval has not been fully included in this document, such as -*

- a statement as to compliance with all the terms and conditions of the Certificate and a detailed description of the measures taken to ensure compliance with the certificate, including any supporting data or other information;

- details of how and when any non-compliance was corrected, a summary and discussion of the

quantity of water supplied during the reporting period compared to the rated capacity specified in this Certificate of Approval including the monthly average and maximum daily flows;

- a summary of records made under Condition 2.1 related to flow rate exceedances and a summary of analytical results of sampling required for the Certificate, including raw water and in-process parameters as specified in the operations manual in accordance with Condition No. 3.10;

- a summary listing treatment chemicals (sodium hypochlorite) used, including average dosage rates with special reference to any abnormal usages.

An annual compliance report was provided by Creg Quay Ltd. on May 5, 2003, however the report was required to be submitted no later than March 31, 2003 as required in Condition 4.1 (b) of the Certificate of Approval. A review of the report revealed that the document lacked information pertaining to such matters as flow data, chlorine residual determinations and chemical usage records. Other required information not contained in the 2002 annual report includes a detailed description of the measures taken to ensure compliance with the Certificate of Approval; a summation of treatment chemicals used, including average dosage rates; an analysis of events of non-compliance; and a discussion on the flow rates with respect to the rated capacity of the well supply. In consideration of this issue, our Ministry has had ongoing discussions with the operations manager and the new operations contractor (Aquatech) to review Section 4 (c) of your Certificate of Approval which fully outlines the expected information to be included in the Annual Compliance.

5.2 BEST MANAGEMENT PRACTICES RECOMMENDATIONS

1. At the time of the inspection, containment facilities for the sodium hypochlorite solution (12%) tank and the reserve sodium hypochlorite containers were not available and if a spill of this product occurred it would leak to the floor drain in the treatment plant and discharge to the outside environment. Sufficient chemical containment is required for the storage of this chemical.

The containment facilities are now in place.

2. *Although the daily log appeared to be well maintained as well as the records associated with sodium hypochlorite usage, it was evident that the record of daily flows needs improvement. A record of all daily flows, including the average, peak and monthly totals are required. This allows an easier review of the overall annual water consumption with respect to the average and maximum flows. Appendix M contains an illustrated example of an appropriate record sheet.*

Since this recommendation was issued, a new operating contractor has assumed control of the operations management of the plant and some changes have been made to the daily log sheets which have improved the recording but there are still some omissions and these are discussed in this report in Section 3.2.2.

3. *The current alarm system for the treatment plant is a yellow flashing light situated on the west side of the treatment plant building. This appears to be an unacceptable location for such an alarm light as the majority of the development homes are located on the east side of the building away from this side and the light cannot be seen from there. Thus an alarm could be occurring and no one would notice it. It is recommended that he alarm be tied into a phone or pager which the operator or someone associated with the treatment plant can respond to immediately. An auto dialer should be installed in the plant to connect to an emergency phone line.*

Th is issue has now been resolved and the system is now monitored by Glengarry Alarms who will call the operations contractor when problems occur.

4. *Finally, a new Certificate of Approval (No. 5365-575LK3) was issued for this water system February 21, 2002 and contains more stringent performance, monitoring and recording, operation and maintenance and upgrading requirements for the system to ensure the continued effective treatment and integrity of this works. The inspector is of the opinion that if the requirements of this new C of A are met then the waterworks would be properly maintained.*

Due to change in the operations contractors which occurred this year, not all of the operations and upgrading requirements were fulfilled. A recent meeting with the new Operations Contractor has confirmed that changes are now underway to correct this and all work will be completed this Fall.

5. *There appears to be no formal maintenance plan. A schedule of on-going or preventive maintenance should be developed for this treatment plant and the portable gas generator should be tested monthly to ensure that it is in working order*

The new operations contractor reports that a preventive maintenance program is under development here and it should be implemented by this fall. In addition, a separate log of

maintenance activities is now kept, together with a new equipment repair schedule which should improve the water plant maintenance.

6. *The roof of the building containing the above ground water storage reservoir appears to be in a poor state of repair and should be repaired as soon as possible.*

This work has still not been completed and the new operations contractor reports that repairs are scheduled for the autumn of 2003.

SECTION 6 SUMMARY OF NON COMPLIANCE ISSUES & ACTION REQUIRED

1. No annual ground water taking records with respect to the measurement and reporting criteria defined under General Conditions 3 (a) and 3 (c) of the Permit To Take Water (PTTW) have been submitted to the Director. These records shall be submitted to the Director annually, on or before the 31st day of March during each year of water taking (pursuant to clause 13) or until the Director has given notice in writing that these submissions are no longer required.

By no later than October 30, 2003, provide the undersigned Inspector with an Action Plan responding to the above-cited required action.

SECTION 7 SUMMARY OF BEST PRACTICE RECOMMENDATIONS

In the interest of fostering continuous improvement in the integrity and performance of the drinking-water supply, the following recommendations are provided:

1. The owner should consider connecting Well No. TW 92-2 to the existing water treatment plant to provide an additional source of water for the community, thus ensuring that adequate water quantity is available. Well No. TW 92-2 has already received formal approval and only requires connection to the existing water treatment plant.

2. The existing water taking permit expires on June 30, 2004. An application to renew the permit should be made to the Ministry at least three months before it expires.

3. An Engineer's Report was required to have been submitted to the Ministry on September, 30, 2003 as required by the current C of A; however, as a consequence of the Drinking Water Systems Regulation, this water works is now likely considered to be a non-municipal year round residential system and therefore will no longer require a Certificate of Approval. Upon submission of Engineering Evaluation Report as described in Schedule 21 of O. Reg 170/03, the Certificate of Approval will be revoked. Any modification to the water works will necessitate the submission of an Engineers Evaluation Report.

4. Currently, there are no documented programs in place for inspecting and exercising distribution system valves in accordance with the AWWA standards. This work should be performed annually.

5. It is recommended that the Operations Manual contain the following elements:

- up-to-date, as-built plans of the water system with special attention given to last revision date of the plans versus the current C of A date to confirm that the plans reflect modifications that have been made to the works throughout its operational life;
- Information on the raw water source;
- plant unit operations;
- storage and transmission considerations;
- a process to ensure that all equipment used in the processes is monitored, inspected and evaluated;
- a monitoring plan including processes to vary sampling schedules such that sampling is not only done during optimal conditions (e.g. low demand periods);
- identification, notification and corrective actions for adverse drinking-water conditions; and,
- procedures for the disinfection and repair of water mains.

By no later than October 30, 2003, provide the undersigned Inspector with an Action Plan responding to the five above-cited best practices recommendations.

SIGNATURES

Inspected By: Donald Munro	Signature: (Inspector): Don Munro
Reviewed & Approved By: James Mahoney	Signature (Supervisor): Don Munro for Jim Mahoney
Review & Approval Date: (yyyy/mm/dd) 2003/10/01	

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

cc: Development Manager (owner)
Water System Manager (Aquatech)
CAO (Township of South Glengarry)
Operator In Overall Responsibility
Local Health Unit
MOE Environmental Assessment and Approvals Branch
Conservation Authority/Ministry of Natural Resources
District Office File - SI RU RU 241 (32563)

APPENDIX A

CERTIFICATE OF APPROVAL

(AS ATTACHED)

Ministry of the Environment
Environmental Assessment and
Approvals Branch
Floor 12A
2 St Clair Ave W
Toronto ON M4V 1L5
Fax: (416)314-8452
Telephone: 416-314-8001

Ministère de l'Environnement
Direction des évaluations et des autorisations environnementales
Étage 12A
2 av St Clair O
Toronto ON M4V 1L5
Télécopieur: (416)314-8452
Téléphone : 416-314-8001

Ontario

February 20, 2003

Pierre Jarry, General Manager
Creg Quay Limited
PO Box 362
Bainsville, Ontario
K0C 1E0

Dear Mr. Jarry:

Re: Application for Approval of Municipal and Private Water Works
Amended CofA for Creg Quay Water Supply
South Glengarry Township, United Counties of Stormont, Dundas & Glengarry
MOE Reference Number 4924-5FTJNB

Please find attached an amended consolidated Certificate of Approval for the above noted water works which revokes and replaces the consolidated Certificate of Approval issued for the works previously.

Based on the recommendation of the Hydrogeological Study Report and the Peer Reviewer's Report, we have amended Condition 5 of the CofA. Also, Condition 3.9, 3.11 and 4.1(b) have been amended to suit current situation.

If you have any questions regarding the above, please contact Angelo Wijayakumar, P. Eng., at phone number 416-212-3710.

Yours truly,

Mohamed Dhalla, P. Eng.
Director, s52 OWRA

c: District Manager, MOE ~~Cornwall~~ Kingston
Leon Bryck, P. Eng., Hydroterra Limited
Manager, Drinking Water, Wastewater and Watershed Standards Section, Standards Development Branch
Area Office MOE Cornwall

Ontario

Ministry of the Environment **Ministère de l'Environnement**

AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE WATER WORKS
NUMBER 3548-5JXQ48

Creg Quay Limited
PO Box 362
Bainsville, Ontario
K0C 1E0

Site Location: Creg Quay
21236 South Service Road
South Glengarry Township, United Counties of Stormont, Dundas & Glengarry

You have applied in accordance with Section 52 of the Ontario Water Resources Act for approval of:

a groundwater supply system rated at 492 m^3/d, serving Creg Quay development in the Township of South Glengary located on the shores of Lake St. Francis consists of the following:

Well (TW81-1)

- a 200 mm diameter well drilled to bedrock at an estimated depth of 22 m located inside the treatment building (NAD 83: Zone 18, 545001.00 m E, 5001695.00 m N), equipped with a submersible low lift pump with a rated capacity of 342 L/min against a Total Dynamic Head (TDH) of 27 m. and a 150 mm header equipped with a chlorine injection point, sample lines, and a flowmeter.

Well (TW92-2)

- a 200-mm diameter well drilled to bedrock located approximately 35 m north of the treatment building (NAD 83: Zone 18, 544962.00 m E, 5001729.00 m N), would be pumped by a 3.7 kW submersible pump with a rated capacity of 315 L/min against a 27 m TDH to a low lift pump distribution header with in-line totalizing turbine flow meter.

Chlorination System

A chlorination system utilizing sodium hypochlorite solution pumped from a 200-L polyethylene tank by a diaphragm metering pump with a rated capacity of 109 L/day at 758 kPa.

Storage Tanks

Two aboveground precast concrete storage tanks, operated in parallel, located in a building to the immediately north of the treatment building associated with stilling well which is equipped with level sensors. The storage tanks are internally baffled into two compartments of approximate volume 15,000L and 30,000 L, joined by an approximate 300 mm opening in the baffle with a perforated 150-mm PVC pipe inlet header.

High Lift Pumps
Three (one lead, two lag) 1.5 kW, 5.5 kW and 5.5 kW centrifugal pumps with rated capacities of 80 L/min at 50 m TDH (lead) and 510 L/min at 35 m TDH (lag, each).

Pressure Tanks
Ten (10) 454-litre capacity in-line galvanized steel pressure tanks in the treatment building.

Standby Power
A portable 5.5 kW gasoline powered emergency generator located inside the treatment building

Control facilities
- A pressure switch located on the pump discharge header activates pumping.
- A control panel in the treatment building controls pump activation

All in accordance with the Engineer's Report prepared by "M. S. Thompson & Associates Ltd." dated May 31, 2001 and any additional information and documentation that may have been provided in support of the report.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

(1) "certificate" means this entire certificate of approval document, issued in accordance with Section 52 of the *Ontario Water Resources Act*, and includes the schedules to it, if any, and any applications for approval for which certificates of approval have previously been issued, and supporting information to the applications;

(2) "Director" means any Ministry employee appointed as Director pursuant to Section 5 of the *Ontario Water Resources Act*;

(3) "Ministry" means the Ontario Ministry of the Environment;

(4) "Owner" means Creg Quay Limited, and includes its successors and assignees;

(5) "works" means the water works described in this certificate and in the supporting documentation included in the Engineer's Report for Water Works, to the extent approved by this certificate;

(6) "water treatment plant" means the entire water treatment system, including the groundwater wells, and any water storage facilities associated with the water treatment plant;

(7) "water treatment or distribution system" means a system for collecting, producing, treating, storing, supplying or distributing water that includes one or more water works;

(8) "quarter" means the three-month period beginning on January 1, April 1, July 1 and October 1 in each year;

(9) "maximum flow rate" means the maximum rate of water flow for which the plant or process unit was

designed;

(10) "contact time" means the detention time T_{10} which is the time for 10% of the water (tracer) to pass through the process unit, storage reservoir or pipe;

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. PERFORMANCE

1.1 The Owner shall ensure that, subject to Conditions 3.1 through 3.14, the water treatment or distribution system is operated and maintained in such a manner, and with such facilities that water supplied to the consumers serviced by the system satisfies the requirements of the "Ontario Drinking Water Standards", dated January 2001, as amended from time to time.

1.2 The groundwater wells have been approved to supply water at the following maximum flow rates:

Well No. TW81-1 342 L/min
Well No. TW92-2 315 L/min

(a) The Owner shall have a valid Permit To Take Water;

(b) The Owner shall submit an application for an amendment to this certificate when the maximum flow rats of the approved wells are exceeding the flow rates specified in the valid Permit To Take Water.

1.3 The Owner shall ensure that, subject to Conditions 3.1 through 3.14, the water treatment plant is operated to treat water at a rate not exceeding the maximum flow rate of 342 L/min for Well No. TW81-1, 315 L/min for Well No. TW92-2 and 492 m^3/d (total).

1.4 The Owner shall ensure that the flows into the water treatment plant do not exceed the maximum flow rate(s) set out in Condition 1.3, except where necessary for the purpose of maintenance of the works and essential to its efficient operation, and provided that the treated water quality satisfies the requirements set out in the Ministry Procedure B13-3 entitled "Chlorination of Potable Water Supplies in Ontario", dated January 2001, as amended from time to time.

1.5 The Owner shall ensure that the disinfection facilities in the water treatment plant are operated and maintained in such a manner and with such facilities as is necessary to be in accordance with the Ministry Procedure B13-3 entitled "Chlorination of Potable Water Supplies in Ontario", dated January 2001, as amended from time to time.

2. MONITORING AND RECORDING

2.1 The Owner shall ensure that the following monitoring program is established and carried out:

(a) Install, maintain and operate a sufficient number of flow measuring devices to measure:

(i) the flow rate and daily quantity of water being taken from each source (well or intake) and conveyed to and through the water treatment plant, and

(ii) the flow rate of treated water supplied to the distribution system.

(b) Calibrate the flow measuring devices required by clause (a) above at regular intervals not exceeding one year to ensure their accuracy to within plus or minus 5% of actual rate of flow within the range of 10% to 100% of the full scale reading of the measuring devices, or as specified by the instrument manufacturer's instructions.

(c) Record the results of the flow measurements made in accordance with clause (a) above as total daily flow and as daily peak flows.

(d) Record the date, time, duration and cause of each occasion that the flow rate exceeds that specified in Condition 1.3.

(e) Install, maintain and operate continuous water quality analyzers and indicators with alarm systems, calibrated as specified by the instrument manufacturer's instructions or as in "Standard Methods for the Examination of Water and Wastewater" 20th Edition, 1998, or a more recently published edition, to monitor the following parameters at the indicated locations:

(i) free chlorine residual in treated water at the point(s) of entrance to the distribution system (quality control band: $\pm$ 0.05 mg/L at a chlorine concentration of 1.0 mg/L chlorine or a proportionately wider band where the plant stream being monitored routinely contains a higher concentration of chlorine),

(ii) turbidity of treated water at the point(s) of entrance to the distribution system (quality control band: $\pm$ 0.1 NTU).

(f) Samples of raw water and treated water shall be collected and analyzed for parameters at the locations and frequencies in accordance with Regulation 459/00, Drinking Water Protection, Schedule 2, Sampling and Analysis Requirements, as amended from time to time.

NOTE: Works which do continuous monitoring of chlorine residual or turbidity may do so instead of taking and analyzing grab samples as may be required by O. Reg. 459/00.

NOTE: Samples of raw water do not need to be analyzed for heterotrophic plate count or background colonies.

(g) The sampling required by clause (f) above shall be performed in a manner that ensures samples have a composition which is representative of the water stream from which they are taken, and also in accordance with the instructions provided by the accredited laboratory engaged to perform the analyses.

2.2 The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring, sampling and analyzing activities required by this certificate.

3. OPERATIONS AND MAINTENANCE

3.1 The Owner, when making decisions within its authority, shall consider the impact of these decisions on the drinking water supply source for water works approved by this Certificate.

3.2 The Owner shall ensure that, subsequent to repairs to the water supply or distribution system, or interruptions in the operation of the water supply resulting in negative pressure conditions in the distribution system, and prior to utilization of the affected parts of the works for the supply of potable water, the affected parts of the water supply or distribution system have been adequately disinfected in accordance with the Ministry Procedure B13-3 entitled "Chlorination of Potable Water Supplies in Ontario", dated January 2001, as amended from time to time.

3.3 The Owner shall ensure that there is an operator who holds a valid licence that is applicable to this type of water treatment plant and that is of the same class as or higher class than the class determined for the water treatment plant in accordance with O. Reg. 435/93, as amended from time to time, and who is responsible for the operation of the water treatment plant.

3.4 The Owner shall exercise due diligence in ensuring that, at all times, the works and the related equipment and appurtenances used to achieve compliance with this certificate are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of this certificate and the Act and regulations, adequate laboratory facilities, process controls and alarms, and the use of process chemicals and other substances that come in contact with water being treated, that are suitable for the process, compatible with each other and appropriate for drinking water.

3.5 In addition to the requirements of Condition 3.4, the Owner shall ensure that all chemicals used in the treatment process and all materials contacting the water meet both the American Water Works Association (AWWA) quality criteria as set out in AWWA standards and the American National Standards Institute (ANSI) safety criteria as set out in ANSI standard NSF/60 or NSF/61. For all chemicals used in the water treatment process and all materials contacting the water being treated, the Owner shall have evidence of current chemical and material product registration by a testing institution accredited under the Standards Council of Canada Act or by the ANSI or documents showing the Ministry is satisfied that the information provided by the product manufacturer indicates the chemical or material product will meet the criteria of the ANSI standards.

3.6 The Owner shall immediately discontinue use of any chemical upon written notice by the Director.

3.7 The Owner shall establish written procedures for the notification of the Medical Officer of Health and the Ministry required by O. Reg. 459/00, and shall ensure that these procedures are followed.

3.8 The Owner shall ensure that contingency plans and procedures are established and adequate equipment and material are available for dealing with emergencies, upset conditions and equipment breakdowns in the works, and that such plans and procedures are implemented.

3.9 The Owner shall ensure that an operations manual that incorporates, at a minimum, the requirements of this certificate related to the works existing at the time of the issuance of the certificate, and any adopted operation and maintenance recommendations of the Engineer's Report based on which this certificate has been issued, is prepared, and ensure that the operations manual is kept up to date such that any relevant updates to the manual are completed prior to commissioning of any new works or implementation of any operational changes. Upon request, the Owner shall make the manual available for inspection by the Ministry personnel.

3.10 The Owner shall ensure that based on the raw water source characterization and the treatment process, the operations manual includes monitoring and reporting of the necessary raw water and in-process parameters that are essential for control of the treatment process and for the assessment of the performance of the works. The manual shall also contain procedures that are required for adequate operation and maintenance of the monitoring equipment.

3.11 For all works constructed after December 31, 2001, including all physical changes to any works in existence on December 31, 2001, within one (1) year of substantial completion of the construction of the works/changes, the Owner shall ensure that drawings accurately showing the works/changes as constructed (record drawings) are prepared and kept up-to-date, including timely incorporation of all modifications made to the works throughout its operational life.

3.12 The Owner shall ensure that a Process and Instrumentation Diagram (PID) for the entire water treatment plant is prepared and kept up-to-date, including timely incorporations of all modifications made to the works throughout its operational life.

3.13 The Owner shall keep a complete set of up-to-date record drawings and diagrams required to be prepared by Conditions 3.11 and 3.12, and all existing record drawings which are currently in retention throughout the operational life of the water works, and upon request, shall make them readily available for inspection by Ministry staff.

3.14 The Owner shall ensure that procedures are established and followed for receiving, responding to, and recording complaints about any aspects of the works, including recording the steps that were taken, if any, to determine the cause of complaint and the corrective measures taken to alleviate the cause and prevent its reoccurrence.

4. COMPLIANCE REPORT

4.1 (a) The Owner shall ensure that a written report detailing compliance with all terms and conditions of this approval is completed annually ("Compliance Report").

(b) The first Compliance Report shall cover a period commencing not later than **February 20, 2002** to the end of that calendar year and shall be completed and made available not later than March 31 of the following year. Each subsequent Compliance Report shall be completed and made available not later than March 31 following the end of the calendar year to which the Compliance Report applies.

(c) A Compliance Report shall include, at a minimum, the following information:

(i) Under a heading of 'Compliance with Terms and Conditions of the Certificate of Approval', a statement as to compliance with all of the terms and conditions of the certificate and a detailed description of the measures taken to ensure compliance with the certificate, including any supporting data or other information;

(ii) In the event of any non-compliance during the reporting period, and under a heading of 'Non-Compliance with Terms and Conditions of the Certificate of Approval', details of the non-compliance as well as details of how and when any non-compliance was corrected;

(iii) A summary and discussion of the quantity of water supplied during the reporting period compared to the rated capacity specified in this certificate of approval, including monthly average and maximum daily flows;

(iv) A summary of records made under Condition 2.1 related to flow rate exceedances, and a summary of analytical results of sampling required by the certificate, including raw water and in-process parameters as specified in the operations manual in accordance with Condition 3.10; and

(v) A summary listing treatment chemicals used, including average dosage rates with special reference to any abnormal usages.

(d) The Compliance Report shall be signed by the Chief Executive Officer of the Owner or other person authorized by a by-law or resolution of the Owner, a copy of which by-law or resolution shall be included with the Compliance Report.

(e) Within three months of completion of the Compliance Report, the Owner shall confirm by a resolution that the Compliance Report has been presented to the Board of Directors of the Owner.

(f) The Owner shall ensure that copies of the Compliance Report are available for inspection by any member of the public during normal business hours without charge and at the same location as that required by s.11 of O.Reg. 459/00 for reports under that regulation. Each 4th quarter report required under section 12 of that regulation shall include information about when the Compliance Report is required to be completed, an outline of the requirements for its contents, and the location where the completed report can be inspected.

5. UPGRADING REQUIREMENTS

5.1 Subject to Condition 5.2 below, by **July 01, 2003**, the Owner shall implement the following physical improvements to the works, in keeping with recommendations of the Engineers' Report and related correspondence:

(a) All works and measures necessary to ensure the effective treatment and integrity of the works, including but not limited to:

(i) Secure the wellhead (TW92-2).

(ii) Provide secondary containment for standby generator fuels and chemicals.

(iii) Modify the inlet headers of the storage tanks to increase the effective retention time and baffling factor.

(iv) Install alarm to the continuous chlorine analyzer to warn the operator in case the chlorine residual has been depleted.

(v) Connect the standby chlorination pump and spare hypochlorite solution tank to the existing second injection point.

5.2 The Owner shall not construct or allow the construction of any portion of the works necessary to comply with the requirements of Condition 5.1 above for which an approval under the *Ontario Water Resources Act* or the *Environmental Protection Act* is required unless a complete application for approval of such portion of the works, including detailed design drawings, specifications and a design brief containing detailed design calculations, has been submitted to and approved by the Director.

5.3 The Owner shall ensure that a complete application for approval under Section 52 of the *Ontario Water Resources Act*, and if necessary, under Section 9 of the *Environmental Protection Act*, is submitted to the Director for each item listed in Condition 5.1 above for which an approval is required at a date which will allow the Owner to obtain approval for the required physical upgrades to the works, and implement the upgrades on or before the compliance date stipulated in Condition 5.1 above.

6. SUBSEQUENT ENGINEERS' REPORTS

6.1 The Owner shall ensure that not later than **September 30, 2003** a Second Engineer's Report, prepared in accordance with the Ministry publication "Terms of Reference for Second and Subsequent Engineers' Reports for Water Works" current at the time of the preparation of the Report, is submitted to the Director.

6.2 The Owner shall ensure that each subsequent Engineer's Report, required by O. Reg. 459/00 to be submitted to the Director not later than the third anniversary of the submission of the previous report, is prepared in accordance with the Ministry publication "Terms of Reference for Second and Subsequent Engineers' Reports for Water Works" current at the time of the preparation of the Report.

7. REVOCATION OF EXISTING APPROVALS

7.1 The descriptions of the approved works and conditions of approval in this certificate apply in place of all existing descriptions and conditions in the certificates of approval under the *Ontario Water Resources Act* for water works which are part of the works approved by this certificate.

7.2 Notwithstanding Condition 7.1 above, the original applications for approval, including design calculations, engineering drawings and reports prepared in support of the existing certificate(s) of approval whose descriptions of the approved works and conditions are now replaced pursuant to Condition 7.1 above, shall form part of this certificate.

7.3 Where an existing certificate of approval referred to in Condition 7.1 above applies to works in addition to the works approved by this certificate, it shall continue to apply to those additional works.

8. INFORMATION

8.1 The requirements in this certificate shall not be construed as limiting in any way the ability of the Ministry to request or require the Owner to furnish any information related to compliance with this certificate, as limiting in any way the authority of the Ministry to require certain steps be taken, or as evidence of the fulfillment of the obligation to report or notify of non-compliance where reporting or notification is required by a statute, regulation, order or other approval.

8.2 In the event the Owner provides the Ministry with information, records, documentation or notification in accordance with this certificate ("Information"),

(a) the receipt of the Information by the Ministry;

(b) the acceptance by the Ministry of the Information's completeness or accuracy; or

(c) the failure of the Ministry to prosecute the Owner or to require the Owner to take any action, under this certificate or any statute or regulation in relation to the Information;

shall not be construed as an approval, excuse or justification by the Ministry of any act or omission of the Owner relating to the Information, amounting to non-compliance with the certificate.

9. CHANGE OF OWNERSHIP

9.1 The Owner shall notify the Manager of the local District office of the Ministry in writing of any of the following changes within 30 days of the change occurring:

(a) change of owner or operating authority, or both;

(b) change of address of owner or operating authority or address of new owner or operating authority;

(c) change of partners where the owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act* shall be included in the notification to the Manager of the local District office of the Ministry;

(d) change of name of the corporation where the owner or operating authority is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O.Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Information Act* shall be included in the notification to the Manager of the local District office of the Ministry;

9.2 In the event of any change in ownership of the works, other than change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this certificate, and a copy of such notice shall be forwarded to the Manager of the local District office of the Ministry.

9.3 The Owner shall ensure that all communications made pursuant to Conditions 9.1 and 9.2 will refer to this certificate's number.

10. INTERPRETATION (Severability and Conflicts)

10.1 The requirements of this certificate are severable. If any requirement of this certificate, or the application of any requirement of this certificate to any circumstance, is held invalid, the application of such requirement to other circumstances and the remainder of this certificate shall not be affected thereby.

10.2 In all matters requiring the interpretation and implementation of this certificate, the conditions of the certificate shall take precedence, followed by the documentation submitted in support of the applications associated with any previously issued certificates of approval for works which are part of the works approved by this certificate.

The reasons for the imposition of these terms and conditions are as follows:

1. Conditions 1.1, and 1.5 are included so that the water quality delivered by the water treatment plant satisfies the current Ontario Drinking Water Standards in order to protect public health and so that the water is aesthetically acceptable.

2. Conditions 1.2, 1.3 and 1.4 are included so that the flow rate of water through the works is within the approved treatment capacity of the works.

3. Conditions 2.1 and 2.2 related to the flow metering, sampling and monitoring program are imposed so that all pertinent data are available for the works performance evaluation and so that the works is operated and maintained at the level consistent with the design objectives, and is effective in producing water of an acceptable quality at all times.

4. Conditions 3.1 through 3.9 and 3.11 through 3.14 are included so that the works will be operated, maintained, funded, staffed and equipped in a manner enabling compliance with the terms and conditions of this certificate and that the Owner can deal with contingency and/or emergency situations.

5. Condition 3.10 is included so that adequate information is available to allow proper control of the treatment process in order to achieve the desired water quality and efficiency of the treatment process.

6. Condition 4.1 is included so that the Owner will regularly review compliance with the terms and conditions of this certificate, be alerted to its obligations with respect to any non-compliance, and allow the public enhanced participation in monitoring compliance.

7. Condition 5.1 is included to require the Owner to implement improvements to the works necessary for the works to be capable of providing safe drinking water in accordance with Ontario Regulation 459/00 and Ontario Drinking Water Standards in a consistent and reliable manner.

8. Conditions 5.2 and 5.3 are included so that the Owner is aware that Condition 5.1, which identifies the requirements for improvements to the works, does not constitute an approval for the implementation of the improvements, and before undertaking any of the improvements, the Owner must apply for and obtain Director's approval under Section 52 of the *Ontario Water Resources Act*.

9. Conditions 6.1 and 6.2 are included to set specific dates for the submission of a second and subsequent engineers' reports, which are required by Ontario Regulation 459/00.

10. Conditions 7.1 through 7.3 are included to stipulate that this certificate replaces all previous approvals for the works being the subject of this certificate, and that the existing approvals remain in force for the purpose of any works which are not subject to this certificate (e.g., a distribution system or its portions, including any in-distribution storage facilities not associated with a water treatment process).

11. Conditions 8.1 and 8.2 are included to emphasize the distinction between the requirements of this certificate and other legal requirements with which the Owner is required to comply.

12. Conditions 9.1 through 9.3 are included so that the Ministry records are kept accurate and current with respect to approved works, and so that subsequent owners of the works are made aware of the certificate and continue to operate the works in compliance with it.

13. Conditions 10.1 and 10.2 are included to clarify how the certificate is to be judicially interpreted, and specifically, to clarify that the requirements of the certificate are severable and that they prevail over supporting documentation.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 5365-575LK3 issued on February 20, 2002

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 52, *Ontario Water Resources Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted water works are approved under Section 52 of the Ontario Water Resources Act.

DATED AT TORONTO this 28th day of February, 2003

THIS CERTIFICATE WAS MAILED
ON March 5, 2003
JC
(Signed)

Mohamed Dhalla, P.Eng.
Director
Section 52, *Ontario Water Resources Act*

AW/

c: District Manager, MOE ~~Cornwall~~ Kingston
Leon Bryck, P. Eng., Hydroterra Limited
Manager, Drinking Water, Wastewater and Watershed Standards Section, Standards Development Branch
Area Office MOE Cornwall

APPENDIX B

PERMIT TO TAKE WATER

(AS ATTACHED)

Ontario

1-613/549-4000 1-800/267-0974 Fax: 613/548-6908

Ministry of Environment and Energy | Ministère de l'Environnement et de l'Énergie

133 Dalton Avenue
P O Box 820
Kingston ON K7L 4X6

133 avenue Dalton
C P 820
Kingston ON K7L 4X6

06 July 1994

Creg Quay Limited
BAINSVILLE, Ontario
K0C 1E0

Attention: Mr. David Hughes
President

Dear Sir:

Re: Permit to Take Water
Three (3) Wells, Lots 20, 21 and 22, Concession I
Township of Lancaster

Enclosed please find Permit to Take Water Number 81-P-4044 which authorizes the withdrawal of water from three (3) wells on Lots 20, 21 and 22, Concession I, Township of Lancaster.

The Permit has been issued in accordance with the procedures and amounts stated on the application for the Permit To Take Water. The Permit is subject to the General Conditions and Special Conditions that may be stated on the Permit. The Conditions have been designed to allow for the development of water resources for beneficial purposes, while providing reasonable protection to existing water uses and users.

If changes in the rate, amount or method of water taking are proposed, an application must be submitted to and approved by this Ministry prior to the commencement of the changes. The attached application form must be used to request an amendment to the Permit.

The Permit is valid until June 30, 2004. A renewal application must be submitted to this office at least one month prior to that date to avoid cancellation of the Permit.

The Permit should be reviewed carefully prior to water taking. Compliance with the Conditions of the Permit is the responsibility of the Permit Holder. Any person taking water under the authority of this Permit must be familiar with the Conditions.

If you have any questions regarding your Permit please contact Penny Sutcliffe at this office.

Yours truly,

Geoff Carpentier, Director
Section 34, R.S.O. 1990
Ontario Water Resources Act
Ministry of Environment and Energy
PS/sh
Enclosure

Notice of Terms and Conditions
Section 100, Ontario Water Resources Act, R.S.O. 1990

Pursuant to Section 34 of the Ontario Water Resources Act, R.S.O. 1990 Permit to Take Water Number 81-P-4044 dated August 10, 1993 is hereby amended by replacing the preamble and text with:

TO: Creg Quay Limited
Bainsville, Ontario
K0C 1E0

for the taking of water for a public supply from three (3) wells located on Lots 20, 21 and 22, Concession I in the Township of Lancaster. The rate of taking shall not exceed 87 Imperial Gallons per minute, or 125,800 Imperial Gallons per day from well TW81-1 and 69 Imperial Gallons per minute, or 99,800 Imperial Gallons per day from well TW92-2 and 218 Imperial Gallons per minute or 313,700 Imperial Gallons per day from well TW93-3.

The water taking shall be in accordance with the application dated March 18, 1994, and signed by James Farrell, Burnside Environmental Limited.

You are hereby notified that this Permit is issued to you subject to the following Definitions, General Conditions and Special Conditions.

DEFINITIONS

1. (a) **"Director" means a Director, Section 34, Ontario Water Resources Act, R.S.O. 1990.**

   (b) **"Ministry" means Ontario Ministry of Environment and Energy.**

   (c) **"Permit" means this entire Permit to Take Water including its schedules, if any, issued in accordance with Section 34 of the Ontario Water Resources Act, R.S.O. 1990.**

   (d) **"Permit Holder" means Creg Quay Limited.**

GENERAL CONDITIONS

2. **This Permit shall be kept available at the Creg Quay Limited offices for inspection by Ministry staff at all times.**

3. The Director may, from time to time, where a situation of interference or anticipated interference with water supplies exists, or in a situation requiring information on water takings for purposes of water resource inventory and planning, give written notice to the Permit Holder to undertake any of the following actions. The Permit Holder shall comply with any such notice:

   (a) To establish and maintain a system for the measurement of the quantities of water taken;
   (b) To operate such a system and to record measurements of the quantities of water taken on forms provided by the Director, with such frequency or for such time periods as the Director may specify;
   (c) To return to the Director records made pursuant to clause 3(b) at such times or with such frequency as the Director may specify; and
   (d) To keep records made pursuant to clause 3(b) available for inspection until such time as they are returned to the Director pursuant to clause 3(c).

4. The Permit Holder shall immediately notify the Director of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint.

5. For Surface-Water Takings, the taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

6. For Ground-Water Takings, if the taking of water is forecast to cause any negative impact, or is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent the forecast negative impact or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of so doing.

7. Prior to the taking of water under the authority of this Permit to Take Water, the Permit Holder shall ensure that the works complies with Section 52 of the Ontario Water Resources Act, R.S.O. 1990.

8. Prior to the taking of water under the authority of this Permit to Take Water, the Permit Holder shall ensure that the discharge complies with Section 53 of the Ontario Water Resources Act, R.S.O. 1993.

9. The Permit Holder shall report to the Director any changes of address or telephone number, or change of ownership of the property for which this Permit is issued and shall report to the Director any changes in the general conditions of water taking from those described in the Permit application within thirty days of any such change. The Permit Holder shall not assign his rights under this Permit to another person without the written consent of the Director.

10. No water may be taken under authority of this Permit after the expiry date of this Permit, unless the Permit is renewed, or after the expiry date shown on any subsequent renewal of this Permit, unless it is likewise renewed.

11. This Permit does not release the Permit Holder from any legal liability or obligation and remains in force subject to all limitations, requirements, and liabilities imposed by law. This Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

12. The Permit Holder must forthwith, upon presentation of credentials, permit Ministry personnel, or a Ministry authorized representative(s) to carry out any and all inspections authorized by Section 15, 16 or 17 of the Ontario Water Resources Act, R.S.O. 1990, Section 156, 157 or 158 of the Environmental Protection Act, R.S.O. 1990 of Section 19 or 20 of the Pesticides Act, R.S.O. 1990.

SPECIAL CONDITIONS

13. Records with respect to the measurement and reporting criteria defined under General Conditions 3(b) and 3(c) listed above shall be kept by the Permit Holder. These records shall be submitted to the Director annually, beginning in 1995, on or before the thirty-first day of March during each year of water taking or until the Director has given notice in writing that these submissions are no longer required.

14. This Permit expires on June 30, 2004.

The reason for the imposition of Special Condition 13 is to establish a record of water taking.

You may, by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

1. The portions of the Permit or each Term or Condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Permit number;
6. The date of the Permit;
7. The name of the Director;
8. The municipality within which the taking is located;

And the Notice should be signed and dated by the appellant.

This notice must be served upon:

The Secretary
Environmental Appeal Board
112 St. Clair Avenue West
Suite 502
TORONTO, Ontario
M4V 1N3

AND

The Director
Section 34, Ontario Water Resources Act
Ministry of Environment and Energy
133 Dalton Avenue, Box 820
KINGSTON, Ontario
K7L 4X6

Dated at Kingston this 6th day of July, 1994.

Director
Section 34, Ontario Water Resources Act
Ministry of Environment and Energy.

Ministry of the Environment | Ministère de l'Environnement

Annual Record of Water Taking
Relevé annuel des prises d'eau

...no

...information contained on this form is collected under the authority of the Ontario Water Resources Act, Section 34. The purpose of the form ...ord details and information about the taking of water annually. Questions should be directed to the Ministry of the Environment's Regional ...in your area.

...renseignements personnels qui figurent dans le présent formulaire sont recueillis en vertu de l'article 34 de la Loi sur les ressources en eau de ...tario. La présente sert à consigner aux dossiers les détails et les renseignements concernant la prise d'eau annuelle. Prière d'adresser toute ...on au bureau régional du ministère de l'Environnement le plus proche.

...e examples on the reverse side for instructions on completing form.
...r les exemples au verso pour remplir la formule.

Permit No. / *N° de permis* 81P4044 | Year / *Année*

... (Separate record to be kept for each source)
(Faire un relevé distinct pour chaque source)

...of Permittee
...du titulaire du permis

...g Address
...e postale

...n of Taking
...la prise d'eau | Twp. or Municipality / *Canton ou municipalité* | Concession | Lot

(1) ...te of Taking / ...e la prise d'eau	(2) Hours of Taking / *Heure*	(3) Rate of Taking / *Débit de prise d'eau* ☐ Imp gpm / Gal. imp./min ☐ U.S. gpm / Gal. amér./min ☐ Litres/sec / *Litres/sec*	(4) Amount of Taking / *Volume des prises d'eau par* ☐ Day / *jour* ☐ Week / *semaine* ☐ Month / *mois*	(5) Remarks / *Observations*

...that the above information is true, complete and accurate.
...que les renseignements ci-dessus sont vrais, complets et exacts.

Signature | Date

Annual Record of Water Taking

ne of the General Terms and Conditions of a Permit To Take ater gives the Director of a Ministry Region the option to quest the submission of water taking records from the permit ıolder, and to submit them to the following address:

Relevé annuel des prises d'eau

L'une des stipulations générales d'un permis de prise d'eau autorise le directeur d'un bureau régional du ministère à demander au détenteur d'un permis de présenter ses relevés de prise d'eau à l'adresse suivante:

is form is provided for your convenience in maintaining acrate records. Use a separate form for each source of supply. ıo water is taken, submit your form stating this fact.

ease submit your form no later than February 1 of the year owing the current year's taking, or at such a time that the ector specifies.

ese annual records form an important part in providing data assess water resources in your part of the province. Your operation each year is appreciated.

Cette formule vous est fournie pour que vous puissiez préparer des relevés exacts. Utilisez une formule distincte pour chaque source d'approvisionnement. Si vous ne prenez pas d'eau, indiquez-le dans votre relevé.

Veuillez présenter votre relevé au plus tard le 1er février de l'année qui suit l'année du relevé ou lorsque le directeur le demande.

Les renseignements fournis sur les relevés annuels nous aident à évaluer les ressources en eau dans votre région. Nous apprécions, chaque année, votre coopération.

mples of Completed Records

Exemples de relevés complets

(1) Date of Taking / *Date de la prise d'eau*	(2) Hours of Taking / *Heure*	(3) Rate of Taking / *Débit de prise d'eau*	(4) Amount of Taking / *Volume des prises d'eau par*	(5) Remarks / *Observations*
Oct. 12/83 *12 oct. 1983*	14	200	168,000	

(1) Date of Taking / *Date de la prise d'eau*	(2) Hours of Taking / *Heure*	(3) Rate of Taking / *Débit de prise d'eau*	(4) Amount of Taking / *Volume des prises d'eau par*	(5) Remarks / *Observations*
an. 1 to 31/83 *r-31 janv. 1983*	24	150	5,580,000	max. – 216,000 gal per day *max. – 216 000 gal. par jour*
				min. – 166,000 gpd av. – 180,000 gpd *min. – 166 000 gal. par jour* *moyenne – 180 000 gal. par jour*

ıle a) – Irrigation taking – to obtain column (4), multiply ı (3) (max. pumping rate) x column (2) x 60 (no. of s in one hour) i.e., 200 x 14 x 60 = 168,000. This gives ıount of taking in gallons per day

ıle b) – Long-term municipal or industrial taking – Where hly or weekly meter reading is reported, show maximum column (3) as well as maximum, minimum and average akings in the Remarks column

Exemple a) – Prises d'eau pour irrigation – pour remplir la 4e colonne, multipliez le résultat de la 3e colonne (débit maximal de pompage) par celui de la 2e colonne et par 60 (nombre de minutes par heure), soit 200 multiplié par 14 multiplié par 60 = 168 000. Vous obtiendrez le volume quotidien d'eau en gallons.

Exemple b) – Prises d'eau à long terme pour des services municipaux ou à des fins industrielles – Si vous indiquez le résultat mensuel ou hebdomadaire apparaissant sur un compteur, indiquez le débit maximal dans la 3e colonne, ainsi que les prises quotidiennes maximales, minimales et moyennes dans la colonne des observations

Please indicate units of measurement.

Veuillez indiquer les unités de mesure.

These terms and conditions have been designed to allow for the development of water resources for beneficial purposes while providing reasonable protection to existing water uses and to public interests in water.

1. **Permit**

   This Permit shall be kept available at all times for inspection.

2. **Measurement and Reporting of Water Taking**

   The Director may, from time to time, where a situation of interference or anticipated interference with water supplies exists, or in a situation requiring information on water takings for purposes of water resource inventory and planning, give written notice to the Permit holder to undertake any of the following actions.

   The Permit holder shall comply with any such notice:

   (a) To establish and maintain a system for the measurement of the quantities of water taken;

   (b) To operate such a system and to record measurements of the quantities of water taken on forms provided by the Director, with such frequency or for such time periods as the Director may specify;

   (c) To return to the Director records made pursuant to clause 2 (b) at such times or with such frequency as the Director may specify;

   (d) To keep records made pursuant to clause 2 (b) available for inspection until such time as they are returned to the Director pursuant to clause 2 (c).

3. **Interference with Other Water Supplies**

   The Permit holder shall immediately notify the Director of any complaint arising from the taking of water authorized by this Permit and shall report upon any action which has been taken or is proposed with regard to such complaint.

   For Surface-Water Takings, the taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

   For Ground-Water Takings, if the taking of water is forecast to interfere seriously, or is observed to interfere seriously with other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit holder shall take such action as will make available to those affected a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking so as to prevent the forecast interference or alleviate the observed interference. Pending permanent restoration of the affected supplies, the Permit holder shall provide to those affected temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of so doing.

4. **Reporting of Changes**

   The Permit holder shall report to the Director any changes of address or telephone number, or change of ownership of the property for which this Permit is issued and shall report to the Director any changes in the general conditions of water taking from those described in the Permit application within thirty days of any such change.

   The Permit holder shall not assign his rights under this Permit to another person without the written consent of the Director.

5. **Expiry**

   No water may be taken under authority of this Permit after the expiry date shown on the face of this Permit, unless the Permit is renewed, or after the expiry date shown on any renewal of this Permit.

6. **Liability**

   This Permit does not release the permittee from any legal liability or obligation and remains in force subject to all limitations, requirements, and liabilities imposed by law. This Permit shall not be construed as estopping or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the permittee, its officers, employees, agents, and contractors.

7. **Inspection**

   It is a condition of this permit that the permittee must forthwith on request permit provincial officers to carry out inspections authorized by section 15, 154 or 155 of the Ontario Water Resources Act, section 156, 156a or 157 of the Environmental Protection Act or section 19 or 20 of the Pesticides Act of any place, other than any room actually used as a dwelling, to which the permit relates.

DIAGRAM OF LOCATION OF WATER TAKING

APPENDIX C

GPS COORDINATES

GPS REFERENCING	
ITEM	31G1E - South Lancaster
MAP DATUM:	***NAD 83***
UTM ZONE:	***18***
WATER INTAKE:	-
TREATMENT PLANT CREG QUAY:	***18T0545001, UTM 5001683***
WELL # TW 81-1	***- 545001.00 m E, 5001695.00 m N***
WATER STORAGE CREG QUAY	-
WELL # TW 92-2	***- 544 962.00 m E, 5001729.00 m N***
WELL # TW93-3	***- 544942.00 m E, 5001771.00 m N***

APPENDIX D

OPERATOR AND FACILITY CERTIFICATION DETAILS

PLANT CLASSIFICATION

Plant Name: Creg Quay

Facility Level: Class 1 Small Water System

Certificate Number: *N/A*

Date of Issue: October 12, 1999

PLANT PERSONNEL

OPERATOR 1

Operator Name: Jean Pierre Azzopardi

Title: Operator in Charge

Certificate Number: 599

Expiry Date: September 30, 2004

Certification Level: 2

OPERATOR 2

Operator Name: Charles Eric Noel

Title: Operator

Certificate Number: OT 19912

Expiry Date: April 30, 2006

Certification Level:

OPERATOR 3

Operator Name:

Title:

Certificate Number:

Expiry Date:

Certification Level:

Ontario Environmental Training Consortium
Certification Office
37 George Street North, Suite 206, Brampton, Ontario L6X 1R5

April 15, 2003

Charles Eric Noel
445 Place La Frigate
Sta. Catherine, QU
J0L 1E0

REFERENCE: Operator in Training Examination

Congratulations on obtaining a mark of 80% on your Operator in Training (OIT) certification examination. Your mark is confidential and will not be released without your written permission.

Enclosed are your OIT licence(s), which are valid for three (3) years. All operator licences must be posted at your work place. Renewal notices will be mailed to your home address, please notify the OETC (in writing) of any address changes.

An OIT is eligible to write a Class I certification examination at any time. You will be eligible to receive the Class I licence once you pass the exam and have one (1) year of valid operating experience. Valid operational experience starts from the date you passed the OIT exam and you are performing operational duties. Operational experience prior to Feb. 1, 1994 may also be used towards the issuance of a class 1 licence, if applicable.

Please accept my best wishes for your continued success. If you have any questions please contact me at (905)796-2851 ext. 2225.

Yours sincerely,

Val Plant
Examination Marks Coordinator

Licence Title:	Reference Number:
Water Treatment	OT19912
Water Distribution	OT19913
Wastewater Treatment	OT19914
Wastewater Collection	OT19915

Ontario

CERTIFICATE OF COMPETENCY / CERTIFICAT DE COMPÉTENCE

CHARLES ERIC NOEL

has complied with the requirements under Regulation 435/93 for the Utility Operator Licensing Program in satisfait aux exigences du Programme de certification des operateurs d'installations, aux termes du Reglement 435/93

WATER DISTRIBUTION SYSTEM
RÉSEAUX D'APPROVISIONNEMENT EN EAU

OPERATOR-IN-TRAINING/APPRENTI(E)-OPÉRATEUR(TRICE)

April 30, 2006 **OT19913**

Debra Sikora

Ontario

CERTIFICATE OF COMPETENCY / CERTIFICAT DE COMPÉTENCE

CHARLES ERIC NOEL

has complied with the requirements under Regulation 435/93 for the Utility Operator Licensing Program in
satisfait aux exigences du Programme de certification des operateurs d'installations, aux termes du Reglement 435/93

WATER TREATMENT SYSTEM
TRAITEMENT DE L'EAU

OPERATOR-IN-TRAINING/APPRENTI(E)-OPÉRATEUR(TRICE)

April 30, 2006 **OT19912**

Debra Sikora

Ontario Environmental Training Consortium
Certification Office
37 George Street North, Suite 206, Brampton, Ontario L6X 1R5

July 08, 2003

Jean-Pierre Azzopardi
649 Roslyn
Montreal, QU
H3Y 2V1

REFERENCE: Licence Upgrade By Exam

Your file was reviewed and you have qualified to receive a licence upgrade by examination. The effective date of this upgrade is the date specified on this letter.

Please find enclosed your new licence(s). Ontario Regulation 435/93, requires employers to display all operator licences at the workplace. Please provide your employer with the original or a copy of your licence.

A renewal form will be mailed to your home address three (3) months prior to the expiry date of your licence(s). A renewal notice is sent only once to the most current address on file. You are responsible for notifying the O.E.T.C. in writing, of changes to your address or personal information.

If you have any questions, please contact me at (905)796-2851.

Congratulations!

Lileith Golding
Renewal/Issuing Coordinator

	Licence Title:	Licence Number	
WT:	WATER TREATMENT 4: JUNE 25th		*
WD:	WATER DISTRIBUTION 2: JUNE 16th		*
WWT:	Wastewater Treatment 4	14461	
WWC:	WASTE WATER COLLECTION 2: JUNE 16th		*

* LICENCES IN PROCESS OF ISSUING.

Ontario Environmental Training Consortium
Certification Office
37 George Street North, Suite 206, Brampton, Ontario L6X 1R5

June 20, 2003

Jean-Pierre Azzopardi
649 Roslyn
Montreal, PQ
H3Y 2V1

REFERENCE: Operator Certification Examination

Congratulations on obtaining 86% on your Water Treatment Level 4 examination. Your mark is confidential and will not be released without your written permission.

This is your official proof of having successfully completed the exam. Please keep a copy of this letter for future reference.

If you have any questions, please feel free to contact me at (905)796-2851 ext. 2225.

Yours sincerely,

Val Plant
Examination Marks Coordinator

Professional Engineers Ontario

100035852

Feb 29/2004 Expires

Jean-Pierre Azzopardi, P.Eng.

is registered as a **Professional Engineer**
and is entitled to engage in the practice of Professional Engineering in the province of Ontario
under the terms of the Professional Engineers Act, revised statutes of Ontario 1990, Chapter P.28.
Professional Engineers Ontario, 25 Sheppard Ave. W., Ste 1000, Toronto, Ontario, M2N 6S9 416-224-1100

Signature of Licensee

Roger F. Barker

Roger F. Barker, P.Eng., CEO & Registrar

Ontario

ONT

CERTIFICATE OF COMPETENCY / CERTIFICAT DE COMPÉTENCE

JEAN-PIERRE AZZOPARDI

has complied with the requirements under Regulation 435/93 for the Utility Operator Licensing Program in
satisfait aux exigences du Programme de certification des operateurs d'installations, aux termes du Reglement 435/93

WATER DISTRIBUTION SYSTEM
RÉSEAUX D'APPROVISIONNEMENT EN EAU
CLASS/CATÉGORIE 2

Expiry Date
Date d'expiration: **August 31, 2006**

License No.
Permis n
14555

Director
Directeur(trice)

Ontario

ONT

CERTIFICATE OF COMPETENCY / CERTIFICAT DE COMPÉTENCE

JEAN-PIERRE AZZOPARDI

has complied with the requirements under Regulation 435/93 for the Utility Operator Licensing Program in satisfait aux exigences du Programme de certification des operateurs d'installations, aux termes du Reglement 435/93

WATER TREATMENT SYSTEM
TRAITEMENT DE L'EAU
CLASS/CATÉGORIE 4

Expiry Date / Date d'expiration: **September 30, 2006**

License No. / Permis n° **14684**

Director / Directeur

Ontario

CERTIFICATE OF CLASSIFICATION / *CERTIFICAT DE CLASSEMENT*

CREG QUAY LIMITED

CREG QUAY SMALL WATER SYSTEM

WATER TREATMENT SYSTEM CLASS 1

Date issued:
Délivré le : **January 21, 1997**

Certificate No.
Certificat n° **2568**

Director
Directeur(trice)

APPENDIX E

CONTACT INFORMATION

Local Health Unit

1000 Pitt Street, Cornwall,
Ontario, K6J 5T1

Attention: Dr. R. Bourdeau
Medical Officer of Health

Medical Officer of Health: Dr. R Bourdeau

Phone: (613) 933-1375
Fax: (613) 933-7930

Conservation Authority or Ministry of Natural Resources

Raisin Region Conservation Authority
6589 Boundary Road,
Cornwall, Ontario

Attention: Roger Houde
General Manager

Phone: (613) 938-3611
Fax: (613) 938- 3221

MOE Environmental Assessment and Approvals Branch

Ministry of the Environment
2 St. Clair Avenue West
Floor 12A
Toronto ON M4V 1L5

Attention: Mirek Tybinkowski
Water and Wastewater
Specialist

Phone:416-314-8202
Fax: 416-314-6935

Consultants or Other Key Contacts

Ontario

Ministry of the Environment
Drinking Water Inspection Report

Aquatech
Water Management Services Inc.
101, Roland-Therrien Blvd.
Suite 110
Longueuil, Quebec
J4H 4B9

Phone: (450) 646-2410
Fax: (450) 646-7977

Attention: Jean-Pierre Azzopardi,
Operator-In-Charge

APPENDIX F

PLANT SCHEMATIC

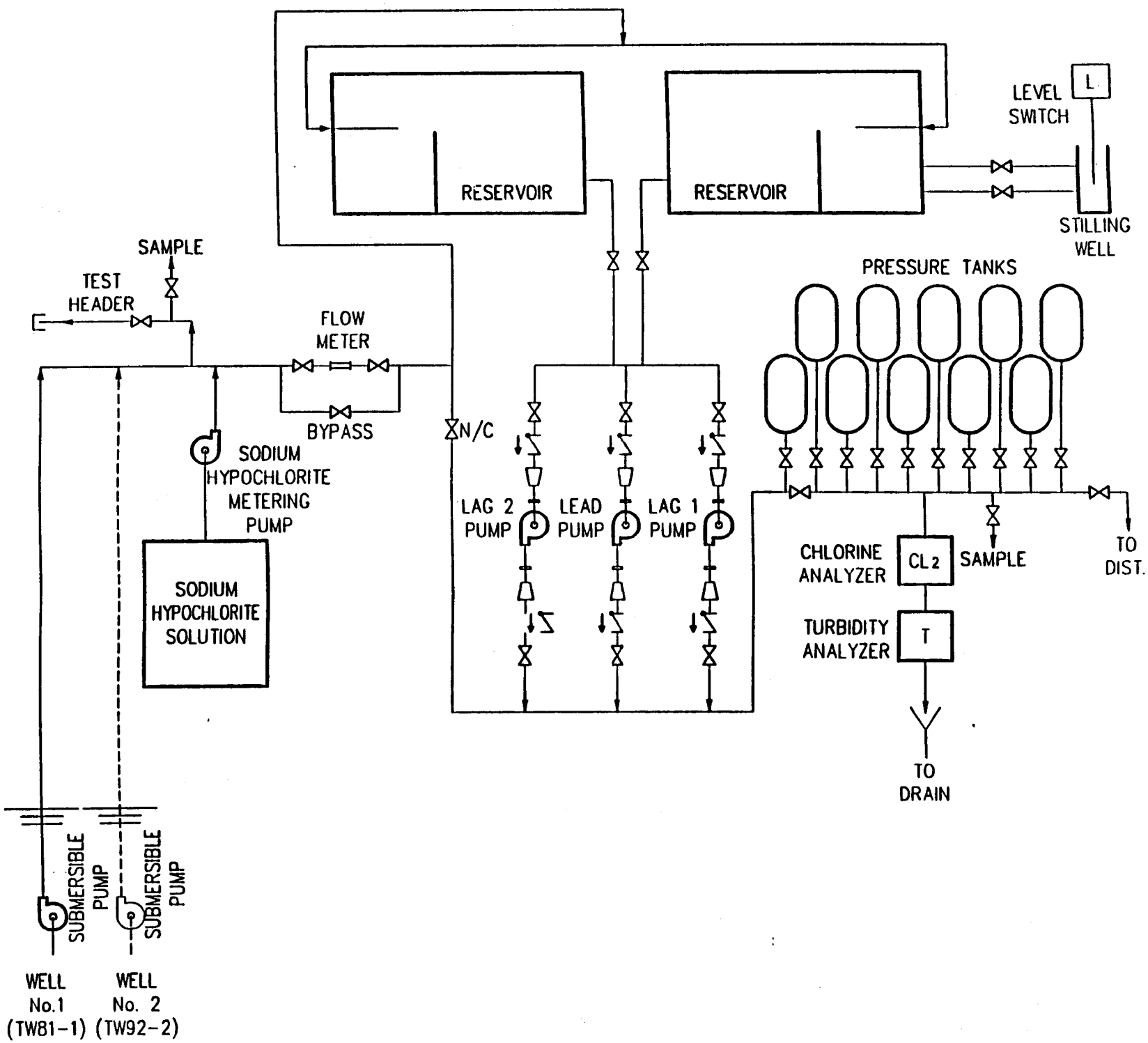
(SEE ATTACHED)

The THOMPSON ROSEMOUNT Group

J.S. THOMPSON & ASSOCIATES LTD.
consulting engineers
CORNWALL KINGSTON

ENGINEERS' REPORT FOR WATER WORKS
CREG QUAY WELL SUPPLY
CREG QUAY LIMITED

PROCESS FLOW DIAGRAM



scale	NTS
date	05/17/01
drawn	BRG
job no.	005166
drawing no.	3.1

APPENDIX G

CALIBRATION CERTIFICATES

(SEE ATTACHED)

MICRONICS

FLOW MEASUREMENT SPECIALISTS

Knaves Beech Business Centre, Davies Way, Loudwater, High Wycombe, Bucks. HP10 9QR
Telephone: (01628) 810456 Fax: (01628) 531540
E-Mail: sales@micronicsltd.co.uk Website: www.micronicsltd.co.uk

CERTIFICATE OF TRACEABLE CALIBRATION

Number: A9613005-MIC103351

CUSTOMER: **GREYLINE INSTRUMENTS INC.**
16456 SIXSMITH DRIVE
LONG SAULT
ONTARIO
KOC 1PO
CANADA

CUSTOMER ORDER NUMBER: GR1000067

Date of Calibration: 20th Feb 2003 Calibration Due Date: 20th Feb 2004

Instrument Description	Manufacturer	Model	Serial Number
Flowmeter	MICRONICS LTD	Ultraflo 2000	9511025

Micronics certifies that the performance of the above listed instrument(s) has been verified using test equipment of known accuracy, Krohne Electromagnetic Meter, which is traceable to National and International Standards.
The procedure and test equipment used to verify the instrument(s) is documented in the applicable Micronics Test and Calibration Procedures (unless otherwise stated) and controlled under the scope of our Quality Management System.

PIPE: 114.2 MM O.D./3.2 MM WALL STAINLESS STEEL (1MHz) – FCF 1.140

FLOW IN LITRES PER MINUTE	READING
1117	1101
454	454
178	180
0	0

Responsible Engineer: M AZIZ Date of Issue: 20th Feb 2003

Signed

Portaflow

Raw water Flowette

CERTIFLO INC.

Rapport d'étalonnage du compteur - à réservoir jaugé

CREG QUAY		CERTIFLO	EAU	10 LBS/GAL	24-04-2003	R.P.M			
Compagnie	Client	Emplacement du Compteur	Produit	Densité - billet de connaiss.	Date (J-M-A)				
Chambre	3	NEPTUNE	T8	26383128	2"	16 GPM	160 GPM	125 PSI	
	N° Compt.	Fabricant	N° Modèle	N° de Série	Taille Compt.	Débit Minimal	Débit Maximal	Press. d'opér.	Débit Vite - RPM
Registre	NEPTUNE	MEC	157		22-26	22-26	0,00%	Pressions d'Opération	
	Fabricant/Modèle	Méc./Elec.	N° Sér. SCB/PCM		Paramètre de Calibration - Initial	Paramètre de Calibration - Final	Ecart en %		
	Nota: Le paramètre de calibration d'un compteur Lectrocount est en impulsions/litre tandis qu'un compteur MCC est sous forme d'un facteur du compteur.								
Étalonneur	BALANCE 51	Therm. Digital	N/A	N/A	Vérif.thermomètre intégré Norme +/- 0.5°C	°C	°C	0,0 °C	55
	N° de Série		N° de Série	N° de Série		Therm. Digital	Therm. Intégré	Écart	Débit Vite - PSI
Conditions d'étalonn.	G/M	62 G/M	N/A Pouces	N/A	N/A	########			
	Taux Débit - Lent	Taux Débit - Vite	Grosseur du Flexible	Vol.brut compteur	Net compteur	Net / brut	Ratio selon charte	Débit Lent - PSI	

A	B	C	D	E	F	G	H	I	J	K	L
N° de l'Essai	Mouill. Essai Vérif. Lent Dble-C	Température	Vitesse d'opération en GPM	Poids Net LBS	Volume de l'étalonneur en LBS	Facteur CTA en utilisant la température de la colonne 'C'	Volume de l'étalonneur corrigé en Gallon	Volume du compteur en Gallon	Écart de volume en Gallon (H - I)	Écart de volume en % (J / H x 100)	Résultats de l'exercise de calibration.
1	Mouill.	Il faut effectuer un mouillage avant chaque session d'étalonnage. Effectuer - oui									Répétitivité .-0,53 %
2	Essai		62,0	992,65	992,65	10	99,27	100,00	-0,73	-0,74 %	
3	Essai		62,0	997,90	997,90	10	99,79	100,00	-0,21	-0,21 %	Moyenne de 3 essais -0,49 %
4	Essai		62,0	994,95	994,95	10	99,50	100,00	-0,50	-0,51 %	
5										%	Essai de vérification -0,51 %
6										%	
7										%	Essai au débit lent 0,00 %
8										%	
9				0,0			0,00		0,00	#DIV/0! %	Dble-C vs dern. essai vite
10				0,0			0,00		0,00	#DIV/0! %	Col 'J' N/A Lts

Normes	
0,50%	
+/- .25%	Méc.
+/- 3.75 Lts	3"
+/- 2.25 Lts	2.5"

Commentaires / Recommendations

CALIBRATION CHEZ CERTIFLO AVEC BALANCE

BALANCE VERIFIÉ AVEC NOS POIDS CERTIFIÉS PAR MESURE Canada SERIE AB

Vérification - Scellés des Compteurs

		Oui/Non
Étaient-ils en place avant l'étalonnage?	N	Oui/Non
Ont-ils été remplacés après l'étalonnage?	N	Oui/Non

Nota:

Signatures	Bruno	
	Signature du technicien	Signature du client

FIELD SERVICE REPORT

FSR# 3424EE1

Endress + Hauser

Customer Name: Creg Quay Town
Submitted by: Eric Erdinger

Date on Site: 24 avril 2003
Date of Report: **24 avril 2003**

Shipping Address:

21236 South Service Rd
Bainsvill, ON, K0C 1^{5}0

Billing Address:

Same

☐ Start up
☐ Training
☐ Maintenance contract
☒ Field Service
☐ Trial

Warranty: ☐ Yes ☒ No
Warranty time on site only: ☐ Yes ☒ No
Invoice: ☒ Yes ☐ No
Job Completed: ☒ Yes ☐ No

Customer P.O.	Representative Name	Customer Contact	Travel Time	
JP007		Charles Eric Noel	2:00	
Customer P.O. Date	Representative Number	Customer Phone	Charge Time on-site	
21 avril 2003	1-800-668-3199	514-603-3543	3:00	
Original Customer P.O.	Rep. contacted	Customer Fax	Arrival	Departure
	No	450-348-1677	8:30	11:30

Instruments:	Serial Numbers	Tag Numbers
D1CAW1C10001G00E	2000059622	Pominent Chlorine
4670/500AM	L/51357/3/5	ABB TURBIDITY
DR4302	1Y044735300002	HONEYWELL recorder

Endress + Hauser Canada Ltd.
1440 Graham's Lane Unit 1
Burlington Ontario L7S 1W3
Phone 905 681 9292
Fax 905 681 9444

Endress+Hauser Canada Ltée
6800 Cote de Liesse #100
St. Laurent, PQ
Phone 514 733 0254
Fax 514 733 2924

Endress+Hauser Canada Ltd
18103-105 Ave NW #101
Edmonton, AB
Phone 780 486 3222
Fax 780 486 3466

FIELD SERVICE REPORT

Problem Description: Calibration and verification.

Solution:

- Chlorine:
- Cleanup of the probe and passage chamber. OK
- Calibration with E+H DPD meter: CCM182-0 SN:51508000.
- Calibrate at 1.14ppm.
- Reading correct. OK

- Turbidity:
- Calibration is not possible without Dry probe or Formazine solution. See recommendation 1.
- Cleanup chamber and probe. OK
- verfication of the reading with Aquatech Turbidymeter: Value given by the ABB instrument = 0.20 NTU. Value given by turbidymeter = 0.24 NTU. OK

- Recorder: - Verification of the % value.
Turbidity = 5.5 mA (17.18% of the span): recorder = 16.5%.
Ph = 57%: recorder = 57%. OK

Note: (Parts Used, etc..) No parts used

Recommendation:

1) Calibration of the turbiditymeter is only possible with Dry probe or Formazine solution. We recommend to buy Dry calibration probe (more safety than formazine) for a full calibration. Today we only verified the reading, no calibration made.

Copies to: Customer → Expectations met ☐ If not, contact us
client, représentant, manager

Endress + Hauser Canada Ltd.
1440 Graham's Lane Unit 1
Burlington Ontario L7S 1W3
Phone 905 681 9292
Fax 905 681 9444

Endress+Hauser Canada Ltée
6800 Cote de Liesse #100
St. Laurent, PQ
Phone 514 733 0254
Fax 514 733 2924

Endress+Hauser Canada Ltd
18103-105 Ave NW #101
Edmonton, AB
Phone 780 486 3222
Fax 780 486 3466

APPENDIX H

MINISTRY AUDIT SAMPLE RESULTS

(SEE ATTACHED)

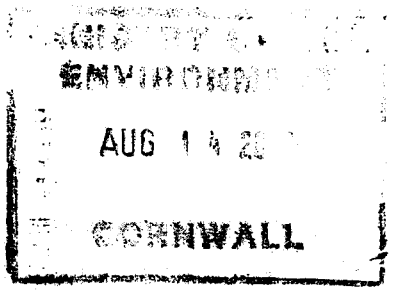
Ontario Ministry of Environment
Central Laboratory - Resources Road
FINAL REPORT(manager.rdf)
Aug. 12, 2003 02:31 PM

Login: **C107364**

Program Code 130072201

Program: MOE OPERATIONS DIVISION
Study: WATER, COMMUNAL
Project: EASTERN REGION - KINGSTON DIST
Activity: WTP MUNIC INSPECT/ADVERS NOTIF
Organization: District Manager Cornwall

Org. Id: 4615



Mail this copy to :

MUNRO, DON
MOE - CORNWALL AREA OFFICE
113 AMELIA STREET
CORNWALL,ONT
K6H 3P1

Final reports to : MUNRO, DON

Inquires to: RUSTY MOODY Telephone : 416-235-5863
PAUL YANG Telephone : 416-235-6004

LOGIN DESCRIPTION: 220008943 CREG QUAY WS DON MUNRO 613-933-7402X231

Login: **C107364**

Field Id	Station ID	Sample Location Description	Sampling Date	Time	Zone	Sampler Information
DHM200-DHM201	2200089437002	RAW WATER	21 JUL 2003	11:00	5	
	Sample ID C107364-0001	Sample Comment Description				

MOE*LIMS Products Requested:

WD	E3172A	F3172	WD	E3196A	IBC3196	WD	E3217A	CAT3217	WD	E3274A	LIC3274
WD	E3311A	TURB3311	WD	E3364A	DISNUT3364	WD	E3371A	TCEC3371			

Field Id	Station ID	Sample Location Description	Sampling Date	Time	Zone	Sampler Information
DHM202-DHM205	2200089437401	(REG) TREATED WATER PLANT	21 JUL 2003	10:30	5	
	Sample ID C107364-0002	Sample Comment Description				

MOE*LIMS Products Requested:

WD	E3051A	MET3051	WD	E3060B	HG3060	WD	E3144B	VOL3144	WD	E3172A	F3172
WD	E3196A	IBC3196	WD	E3217A	CAT3217	WD	E3226A	PA3226	WD	E3274A	LIC3274
WD	E3311A	TURB3311	WD	E3364A	DISNUT3364	WD	E3408A	PC3408			

Field Id	Station ID	Sample Location Description	Sampling Date	Time	Zone	Sampler Information
DHM206	2200089438001	(REG) DISTRIBUTION SYSTEM	21 JUL 2003	11:45	5	
	Sample ID C107364-0003	Sample Comment Description				

MOE*LIMS Products Requested:

WD	E3226A	PA3226	WD	E3408A	PC3408

Field Id	Station ID	Sample Location Description	Sampling Date	Time	Zone	Sampler Information
DHM207	2200089438001	(REG) DISTRIBUTION SYSTEM	21 JUL 2003	11:45	5	
	Sample ID C107364-0004	Sample Comment Description				

MOE*LIMS Products Requested:

WD	E3226A	PA3226	WD	E3408A	PC3408

Field Id	Station ID	Sample Location Description	Sampling Date	Time	Zone	Sampler Information
DHM208	2200089438001	(REG) DISTRIBUTION SYSTEM	21 JUL 2003	11:45	5	
	Sample ID C107364-0005	Sample Comment Description				

MOE*LIMS Products Requested:

WD	E3226A	PA3226	WD	E3408A	PC3408

Ontario Ministry of Environment
Central Laboratory - Resources Road
FINAL REPORT(manager.rdf)
Aug. 12, 2003 02:31 PM

Login: **C107364**

Field ID:	DHM200-DHM201	DHM202-DHM205	DHM206
Sample ID:	C107364-0001	C107364-0002	C107364-0003
MOE*LIMS ID:	2003WD30-00151	2003WD30-00152	2003WD30-00153
Station ID:	2200089437002	2200089437401	2200089438001
Collect Date:	21 JUL 2003	21 JUL 2003	21 JUL 2003
Sample Location Description:	RAW WATER	(REG) TREATED WATER PLANT	(REG) DISTRIBUTION SYSTEM
Sample Comments Description:			

Listid	Parmname	Value	Units	Qual	Rmk1	Value	Units	Qual	Rmk1	Value	Units	Qual	Rmk1
3051L1	Copper					2.1	ug/L	+/-0.50					
	Nickel					2	ug/L	+/-0.40					
	Zinc					19.2	ug/L	+/-1.70					
	Cadmium					-.01	ug/L	+/-0.05					
	Chromium					1.8	ug/L	+/-0.50					
	Lead					.2	ug/L	+/-0.20					
	Iron					234	ug/L	+/-40.00					
	Manganese					40	ug/L	+/-3.50					
	Aluminum					1	ug/L	+/-0.60					
	Vanadium					.25	ug/L	+/-0.08					
	Molybdenum					.99	ug/L	+/-0.21					
	Silver					0	ug/L	+/-0.05					
	Barium					115	ug/L	+/-10.00					
	Beryllium					-.02	ug/L	+/-0.05					
	Strontium					2290	ug/L	+/-160.00					
	Titanium					.7	ug/L	+/-0.50					
	Thallium					0	ug/L	+/-0.05					
	Uranium					.15	ug/L	+/-0.05					
	Boron					246	ug/L	+/-22.00					
	Arsenic					.9	ug/L	+/-0.20					
	Selenium					0	ug/L	+/-1.00					
	Antimony					.53	ug/L	+/-0.15					
	Cobalt					.09	ug/L	+/-0.04					
3060L1	Mercury						ug/L	NDSS					
3144L1	Chloroethene					.05	ug/L	<=W					
	1,1-dichloroethene					.05	ug/L	<=W					
	Dichloromethane					.2	ug/L	<=W					
	Tert-butyl methyl ether					.05	ug/L	<=W					
	trans-1,2-dichloroethene					.05	ug/L	<=W					
	1,1-dichloroethane					.05	ug/L	<=W					
	cis-1,2-dichloroethene					.05	ug/L	<=W					
	Chloroform					2.4	ug/L						
	1,1,1-trichloroethane					.05	ug/L	<=W					
	1,2-dichloroethane					.05	ug/L	<=W					
	Carbon tetrachloride					.2	ug/L	<=W					
	Benzene					.05	ug/L	<=W					
	1,2-dichloropropane					.05	ug/L	<=W					

Login: **C107364**

Field ID:	DHM200-DHM201	DHM202-DHM205	DHM206
Sample ID:	C107364-0001	C107364-0002	C107364-0003
MOE*LIMS ID:	2003WD30-00151	2003WD30-00152	2003WD30-00153
Station ID:	2200089437002	2200089437401	2200089438001
Collect Date:	21 JUL 2003	21 JUL 2003	21 JUL 2003
Sample Location Description:	RAW WATER	(REG) TREATED WATER PLANT	(REG) DISTRIBUTION SYSTEM
Sample Comments Description:			

Listid	Parmname	Value	Units	Qual	Rmk1	Value	Units	Qual	Rmk1	Value	Units	Qual	Rmk1
3144L1	Trichloroethene					.05	ug/L	<=W					
	Bromodichloromethane					1.6	ug/L	<T					
	Toluene					.05	ug/L	<=W					
	1,2-dibromoethane					.1	ug/L	<=W					
	1,1,2-trichloroethane					.1	ug/L	<=W					
	Dibromochloromethane					1.6	ug/L	<T					
	Tetrachloroethene					.05	ug/L	<=W					
	Chlorobenzene					.05	ug/L	<=W					
	Ethylbenzene					.05	ug/L	<=W					
	m-xylene					.05	ug/L	<=W					
	p-xylene					.05	ug/L	<=W					
	Bromoform					0.5	ug/L	<T					
	Styrene					.05	ug/L	<=W					
	o-xylene					.05	ug/L	<=W					
	1,1,2,2-tetrachloroethane					.2	ug/L	<=W					
	1,4-dichlorobenzene					.05	ug/L	<=W					
	1,3-dichlorobenzene					.05	ug/L	<=W					
	1,2-dichlorobenzene					.05	ug/L	<=W					
	Trihalomethanes; total					6.0	ug/L						
3172L3	Fluoride	0.34	mg/L			0.35	mg/L						
3217L1	Calcium	58.6	mg/L			57.0	mg/L						
	Magnesium	25.2	mg/L			25.1	mg/L						
	Sodium	86.6	mg/L			88.8	mg/L						
	Potassium	6.30	mg/L			6.25	mg/L						
	Hardness	250.	mg/L			245.	mg/L						
3226L1	NT: Total Coliforms					See Non-Target Textual result				See Non-Target Textual result			
3311L1	Turbidity	3.16	FTU			0.22	FTU	<T					
3364L1	Nitrogen; ammonia+ammonium	0.224	mg/L			0.004	mg/L	<T					
	Nitrogen; nitrite	0.003	mg/L	<T		.001	mg/L	<=W					
	Nitrogen; nitrate+nitrite	.005	mg/L	<=W		0.010	mg/L	<T					
	Phosphorus; phosphate	0.0045	mg/L			0.0049	mg/L						
3371L7	Total coliform	0.0	c/100mL										
	Total Coliform Background	0.0	c/100mL										
	Escherichia coli	0.0	c/100mL										
3408L1	Heterotrophic bacteria (HB35)					10.	c/mL	<		10.	c/mL	<	

Login: **C107364**

Field ID:	DHM207	DHM208
Sample ID:	C107364-0004	C107364-0005
MOE*LIMS ID:	2003WD30-00154	2003WD30-00155
Station ID:	2200089438001	2200089438001
Collect Date:	21 JUL 2003	21 JUL 2003
Sample Location Description:	(REG) DISTRIBUTION SYSTEM	(REG) DISTRIBUTION SYSTEM
Sample Comments Description:		

Listid	Parmname	Value	Units	Qual	Rmk1	Value	Units	Qual	Rmk1
3226L1	NT: Total Coliforms	See Non-Target Textual result				See Non-Target Textual result			
3408L1	Heterotrophic bacteria (HB35)	10.	c/mL	<		10.	c/mL	<	

Login: **C107364**

CODE	DESCRIPTION
<	ACTUAL RESULT IS LESS THAN THE REPORTED VALUE
<=W	NO MEASURABLE RESPONSE (ZERO): <REPORTED VALUE
<T	A MEASURABLE TRACE AMOUNT:INTERPRET WITH CAUTION
BG	BACTERIAL GROWTH DETECTED AT 48 HR. NO ACID/GAS
NDAE	NO DATA: ABSENT NT: ESCHERICHIA COLI
NDAT	NO DATA: ABSENT NT: TOTAL COLIFORMS
NDDN	NO DATA: NOT DETECTED NT: DETERIORATION INDICATORS
NDID	NO DATA: INSUFFICIENT DATA TO PERFORM CALC.
NDSS	NO DATA: SEPARATE PRESERVED SAMPLE REQUIRED
ODW	ABOVE DRINKING WATER OBJECTIVE

Login: **C107364**

NON-TARGET TEXTUAL RESULT

Sample ID	Listid	Parmname	Value:	Qual:	Remarks
C107364-0002	3226L1	NT: Total Coliforms		NDAT	
Absent					
C107364-0002	3226L1	NT: Escherichia coli		NDAE	
Absent					
C107364-0002	3226L1	NT: Deterioration Indicators		NDDN	
Not Detected					
C107364-0003	3226L1	NT: Total Coliforms		NDAT	
Absent					
C107364-0003	3226L1	NT: Escherichia coli		NDAE	
Absent					
C107364-0003	3226L1	NT: Deterioration Indicators		NDDN	
Not Detected					
C107364-0004	3226L1	NT: Total Coliforms		NDAT	
Absent					
C107364-0004	3226L1	NT: Escherichia coli		NDAE	
Absent					
C107364-0004	3226L1	NT: Deterioration Indicators		NDDN	
Not Detected					
C107364-0005	3226L1	NT: Total Coliforms		NDAT	
Absent					
C107364-0005	3226L1	NT: Escherichia coli		NDAE	
Absent					
C107364-0005	3226L1	NT: Deterioration Indicators		NDDN	BG

Login: **C107364**

Not Detected

TEXT COMMENTS

** End of Report **

APPENDIX I

CONTINGENCY PLAN

(SEE ATTACHED)

AQUATECH
WATER MANAGEMENT SERVICES INC.

101, Roland-Therrien Blvd., Suite 110
Longueuil, Quebec J4H 4B9
Tel.: (450) 646-5270
Fax: (450) 646-7977

Longueuil, July 17, 2003

CREG QUAY
21236, South Service Road
Box 301
Bainsville, Ontario
K0C 1E0

ATTENTION: Mrs. Jacqueline Rose
Assistant General Manager

SUBJECT: Water facilities

Madam,

Please find attached the instructions or steps to take in case of an adverse testing result or other problems as recommended by the Ontario drinking-water quality standards.

For any further information, please do not hesitate to call me at (450)638-2163.

Best regards,

Charles-Eric Noel

C.C.: Mr Jean-Pierre Azzopardi, Aquatech
Mr Benoit Dumont, Aquatech

Table of Contents

AQUATECH
WATER MANAGEMENT SERVICES INC.

CRAIG QUAY

STEPS TO ACTIVATE GENERATORS DURING POWER OUTAGE

WATER PUMPING STATION

1. Move the generator outside. Start it to warm it up and increase idle speed.

2. Turn the power lever to "OFF" position located on the main control panel "System # 1".

3. Disconnect the electrical plugs (two white connectors) on the distribution pump # 1.

4. Re-attach two plugs attached to the motor and switch "one white the other yellow" on distribution pump # 1.

5. Take the end of the power cord attached to the pressure switch on the distribution pump # 1 and connect to the generator.

6. Turn on the breaker on the generator to activate the pump.

P.S. You have approximately four (4) hours to look for gas for the generators.

once a month testing of generator.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

1. IMPROPER DISINFECTION

If a report is required to be made under section 16.4 of schedule 16 in respect of water that as not been properly disinfected, the owner of the system shall report immediately to:

1. The medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately take all reasonable steps to notify all users of water by distributing, door to door to all users, the joint notice "IMPORTANT NOTICE OF NON-DRINKABLE WATER".

5. Immediately restore the disinfection.

6. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

2. TURBIDITY

If a report is required to be made under section 18 of the act in respect of turbidity, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately take all reasonable steps to notify all users of water by distributing, door to door to all users, the joint notice "IMPORTANT NOTICE OF NON-DRINKABLE WATER".

5. Immediately check all the drinking-water system's and turbidity monitoring equipment.

6. Flush the distribution system and any plumbing owned by the owner of the drinking-water system.

7. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

3. CHLORINE RESIDUAL

If a report is required to be made under section 18 of the act in respect of chlorine residual, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately take all reasonable steps to notify all users of water by distributing, door to door to all users, the joint notice "IMPORTANT NOTICE OF NON-DRINKABLE WATER".

5. Immediately increase the chlorine dose and flush the distribution system and any plumbing owned by the owner of the drinking-water system to ensure that a free chlorine residual of at least 0,2 milligrams per litre is achieved at all points in the affected parts of the distribution system and plumbing.

7. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

4. ESCHERICHIA COLI (E-COLI) OR FECAL COLIFORMS

If a report is required to be made under section 18 of the act in respect of Escherichia coli (E-coli) or fecal coliforms, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately take all reasonable steps to notify all users of water by distributing, door to door to all users, the joint notice "IMPORTANT NOTICE OF NON-DRINKABLE WATER".

5. Immediately resample and test.

6. Immediately increase the chlorine dose and flush the distribution system and any plumbing owned by the owner of the drinking-water system to ensure that a free chlorine residual of at least 0,2 milligrams per litre is achieved at all points in the affected parts of the distribution system and plumbing.

7. Maintain the free chlorine residual concentration referred to in paragraph 6 in the affected parts of the distribution system and plumbing, and continue to resample and test, until Escherichia coli (E-Coli) or fecal coliforms are not detected in any of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the medical officer of health.

8. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

5. TOTAL COLIFORMS

If a report is required to be made under section 18 of the act in respect of total coliforms, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately take all reasonable steps to notify all users of water by distributing, door to door to all users, the joint notice "IMPORTANT NOTICE OF NON-DRINKABLE WATER".

5. Immediately resample and test.

6. Immediately increase the chlorine dose and flush the distribution system and any plumbing owned by the owner of the drinking-water system to ensure that a free chlorine residual of at least 0,2 milligrams per litre is achieved at all points in the affected parts of the distribution system and plumbing.

7. Maintain the free chlorine residual concentration referred to in paragraph 6 in the affected parts of the distribution system and plumbing, and continue to resample and test, until total coliforms are not detected in any of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the medical officer of health.

8. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

6. BACKGROUND COLONY COUNTS ON THE TOTAL COLIFORM MEMBRANE FILTER.

If a report is required to be made under section 18 of the act in respect of general bacteria population expressed as background colony counts on the total coliform membrane filter, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If more than 200 colony forming units (CFU) per 100 millilitres are detected under paragraph 4 immediately increase the chlorine dose and flush the distribution system and any plumbing owned by the owner of the drinking-water system to ensure that a free chlorine residual of at least 0,2 milligrams per litre is achieved at all points in the affected parts of the distribution system and plumbing.

6. If more than 200 colony forming units (CFU) per 100 millilitres are detected under paragraph 4 maintain the free chlorine residual concentration referred to in paragraph 5 in the affected parts of the distribution system and plumbing, and continue to resample and test, until less than 200 colony forming units (CFU) per 100 millilitres are detected in all of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the medical officer of health.

7. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

7. COLONY COUNTS ON A HETEROTROPHIC PLATE COUNT.

If a report is required to be made under section 18 of the act in respect of general bacteria population expressed as colony counts on a heterotrophic plate count, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If more than 500 colony forming units (CFU) per millilitre are detected under paragraph 4 immediately increase the chlorine dose and flush the distribution system and any plumbing owned by the owner of the drinking-water system to ensure that a free chlorine residual of at least 0,2 milligrams per litre is achieved at all points in the affected parts of the distribution system and plumbing.

6. If more than 500 colony forming units (CFU) per millilitre are detected under paragraph 4 maintain the free chlorine residual concentration referred to in paragraph 5 in the affected parts of the distribution system and plumbing, and continue to resample and test, until less than 500 colony forming units (CFU) per millilitre are detected in all of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the medical officer of health.

7. Take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

8. SODIUM.

If a report is required to be made under section 18 of the act in respect of sodium, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If a concentration of sodium that exceeds 20 milligrams per liter is detected under paragraph 4, take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

9. CHEMICAL AND RADIOLOGICAL PARAMETERS IN O. REG. 169/03.

If a report is required to be made under section 18 of the act in respect of a chemical or radiological parameter set out in Schedule 2 or 3 to the Ontario Drinking-Water Quality Standards, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If a concentration that exceeds the standards is detected under paragraph 4, take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

10. HEALTH-RELATED PARAMETERS IN AN APPROVAL OR ORDER

If an approval or order identifies a parameter as a health-related parameter and a report is required to be made under section 18 of the act in respect of the parameter, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If a concentration that exceeds the maximum concentration established for the parameter by the approval or order is detected under paragraph 4, take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

CREG QUAY

REPORTING ADVERSE TEST RESULTS AND OTHER PROBLEMS

11. PESTICIDE NOT LISTED IN SCHEDULE 2 TO O. REG. 169/03.

If a report is required to be made under section 18 of the act in respect of a pesticide not listed in Schedule 2 to the Ontario Drinking-Water Quality Standards, the owner of the drinking-water system shall report immediately to:

1. A medical officer of health: 1-613-933-1375, by speaking with a person at the office of the medical officer of health or, if the office is closed, by speaking with a person at the ON-CALL system of the health unit.

2. The Ministry, by speaking with a person at the Ministry's Spill Action Center: 1-800-268-6060.

3. The operating authority: (follow the Aquatech emergency phone list).

4. Immediately resample and test.

5. If the pesticide is detected under paragraph 4, take such other steps as are directed by the medical officer of health.

AQUATECH
WATER MANAGEMENT SERVICES INC.

SITE: CREG QUAY

EMERGENCY PHONE LIST BY PRIORITY ORDER

Pager number of employee in charge :	**(514) 724-8827**

If you can't reach the employee in charge, please call the following numbers:

Benoît Dumont	Pager Mobile phone Home	(450) 544-2198 (514) 779-2862 (514) 384-5240
Charles-Éric Noël	Pager Mobile phone Home	(514) 724-8827 (514) 603-3543 (450)-635-5562
Jean-Pierre Azzopardi	Pager Mobile phone Home	(514) 981-2217 (514) 603-0266 (514) 483-4854

APPENDIX J

COMPLAINT FORM

(SEE ATTACHED)

CREG QUAY

REGISTRATION COMPLAINT FORM

DATE:
TIME:
NAME OF THE PLAINTIVE :
TELEPHONE NUMBER :
NATURE OF THE COMPLAINT:
CORRECTING ACTION:
CONCLUSION:

DATE :

SIGNATURE :

APPENDIX K

NOTIFICATION OF LABORATORY SERVICES

(SEE ATTACHED)

Ontario

CUSTOMER SERVICES
REFERENCE SUPPORT SERVICES
APPLIED CHROMATOGRAPHY
LABORATORY SERVICES BRANCH
125 RESOURCES ROAD
ETOBICOKE, ONTARIO
M9P 3V6

MINISTRY OF THE ENVIRONMENT

FACSIMILE TRANSMITTAL

To: DON MUNRO Fax: 613-933-6402

From: SONIA Date: JULY 25/03

Re: CREG-QUAY Pages: 22

CC:

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Message:

CONFIDENTIAL

IF YOU DO NOT RECEIVE THE NUMBER OF COPIES SPECIFIED OR HAVE TROUBLE READING THE COPY PLEASE CALL THE NUMBER BELOW FOR ASSISTANCE:

PHONE: 416-235-6311 FAX: 416-235-6312

Ontario Ministry of the Environment / Ministère de l'Environnement

UPDATED APR 15 2003

Revised - September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

DATE OF SUBMISSION (dd/mm/yy): 09/04/2003 | DATE RECEIVED (dd/mm/yy):

NEW SUBMISSION ☐ UPDATED SUBMISSION ☑

WATERWORKS INFORMATION

NAME OF WATERWORKS: Creg Quay WATERWORKS #: 220008943

LOCATION OF WATERWORKS:
21236, South Service Road, Bainsville Ontario, K0C 1E0
Street # and Name / Town/City / Postal Code

CONTACT NAME: Jacqueline Rose POSITION / TITLE: Director assistant
PHONE: (613-347-2285 FAX: (613-347-7514 E-Mail: -

ADDRESS: 21236, South Service Road, Bainsville Ontario, K0C 1E0
Street # and Name / Town/City / Postal Code

WATERWORKS OWNER: ☐ MUNICIPAL, NAME _____ ☐ PROVINCIAL, NAME _____
☐ FEDERAL, NAME _____ ☐ INDUSTRIAL, NAME _____
☑ PRIVATE, NAME Corporation of Creg Quay ☐ OTHER, NAME _____

WATER SOURCE: ☑ GROUND ☐ SURFACE, NAME OF WATER BODY _____

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories For Analysis:

E. coli - Membrane Filtration	☑
Fecal coliform - Membrane Filtration	☐
Total coliform - Membrane Filtration	☑
Total coliform background - Membrane Filtration	☑
HPC- Membrane Filtration	☐
E.coli - Presence/Absence	☐
Fecal coliform - Presence/Absence	☐
Total coliform - Presence/Absence	☐
E.coli - Most Probable Number	☐
Fecal Coliform - Most Probable Number	☐
Total Coliform - Most Probable Number	☐
Heterotrophic Plate Count - Spread Plate	☐
Heterotrophic Plate Count - Pour Plate	☐

Other Microbiological Parameter(s) Identified in a MOE Certificate of Approval, Order or Direction: _____

Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.
Address: 8-146 COLONNADE RD. NEPEAN, ON K2E 7Y1
Phone: (613) 727-5692 Fax: (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

Ontario

Ministry of the Environment | Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

1,2-dichlorobenzene	☐	Tetrachloroethylene	☐
1,4-dichlorobenzene	☐	Trichloroethylene	☐
1,2-dichloroethane	☐	Trihalomethanes	☐
1,1-dichloroethylene	☐	Toluene	☐
Benzene	☐	Vinyl Chloride	☐
Carbon Tetrachloride	☐	Xylene	☐
Dichloromethane	☐	Ethylbenzene	☐
Monochlorobenzene	☐		
All of the above	☑		

Other Volatile Organic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.
Address: 8-146 COLONNADE RD. NEPEAN, ON K2E 7Y1
Phone: (613) 727-5892 **Fax:** (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

*Cyanide	☐
*Chloramines	☐
*Turbidity	☐
*Nitrilotriacetic acid (NTA)	☐

* Found in Schedule 4 of the Regulation

Other Operational Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____
_____
_____

Name of Accredited Laboratory:
Address: SAME AS ABOVE
Phone: **Fax:**
E-Mail:
Comments:

Barium	☐	Copper	☐
Boron	☐	Iron	☐
Cadmium	☐	Lead	☐
Chromium	☐	Manganese	☐
Arsenic	☐	Selenium	☐
Mercury	☐	Nitrate + Nitrite	☐
Uranium	☐		
Sodium	☐		
Fluoride	☐		
All of the above	☑		

Other Inorganic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory:
Address: SAME AS ABOVE
Phone: **Fax:**
E-Mail:
Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☑	Glyphosate	☑
2,4-dichlorophenol	☑	Heptachlor + Heptachlor Epoxide	☑
2,4,6-trichlorophenol	☑	Lindane	☑
2,4-D	☑	Malathion	☑
2,4,5-T	☑	Methoxychlor	☑
Alachlor	☑	Metolachlor	☑
Aldicarb	☑	Metribuzin	☑
Aldrin + Dieldrin	☑	Paraquat	☑
Atrazine + Metabolites	☑	Parathion	☑
Azinphos-methyl	☑	PCBs	☑
Bendiocarb	☑	Pentachlorophenol	☑
Bromoxynil	☑	Phorate	☑
Carbaryl	☑	Picloram	☑
Carbofuran	☑	Prometryne	☑
Chlordane (Total)	☑	Simazine	☑
Chlorpyrifos	☑	Temephos	☑
Cyanazine	☑	Terbufos	☑
DDT + Metabolites	☑	Triallate	☑
Diazinon	☑	Trifluralin	☑
Dicamba	☑		
Dichlorp-methyl	☑		
Dimethoate	☑		
Dinoseb	☑		
Diquat	☑		
Diuron	☑		

*Nitrosodimethylamine (NDMA)	☐
*Benzo(a)pyrene	☐
*Radionuclides	☐
*Dioxins and furans	☐

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) Identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.

Address: 1-146 COLONNADE RD. NEPEAN, ON K2E 7Y1

Phone: (613) 727-5692 Fax: (613) 727-5222

E-Mail: info @ accutestlabs.com

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

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Have you taken measures to ensure that ALL laboratories that you use are accredited for the specific testing and are aware of their requirements for reporting data?

Yes ☑ No ☐ Comments:

Have you provided the appropriate laboratories with the Ontario Ministry of the Environment standards for other parameters that you are required to test but which are not listed in the Schedule A, Ontario Regulation 459/00?

Yes ☑ No ☐ Comments:

Prepared By (please print): Jean-Pierre Azzopardi

Signature: [signature] Date: April 09th 2003

Title: President

AGUATECH, ~~Water Management~~ Services inc.

Please send completed form to:

Ministry of the Environment
Laboratory Services Branch
125 Resources Road
Etobicoke, Ontario
M9P-3V6
Attention: Laboratory Director

Fax: (416) 235-5744 or (416) 235-6312

For further information contact:

Ministry of the Environment
Laboratory Services Branch
Customer Service Section
Phone: (416) 235-6311

UPDATED APR 04 2003

TESTING REQUIREMENTS

Name of Waterworks : CREG QUAY WELL SUPPLY

Waterworks number : 220008943

☐	Cyanide	☐	DOC
☐	Chloromines	☐	TOC
☐	Turbidity	☐	Zinc
☐	NTA	☐	Aluminium
☐	Colour	☐	NDMA
☐	pH	☐	Benzo (a) pyrene
☐	Conductivity	☐	Radionuclides
☐	Hardness	☐	Dioxin/Furans
☐	Alkalinity	☐	Faecal Coliforms

Other Required Tests : N.B. No additional test required
(other tha ODWS Tables A, B, C or D)

Jean-Pierre AZZOPARDI, P. ENG
AQUATECH, Water Management Services inc.

ACCUTEST LABORATORIES LTD. Ottawa • Kingston

March 7, 2003

Ms. Sonia Coelho-Murphy
Ministry of Environment
Laboratory Services Branch
125 Resources Road
Etobicoke, ON M9P 3V6

Re: Notification of Laboratory Services Clarification

Dear Ms. Coelho-Murphy:

Please find the enclosed clarification checklists for our Reg.459 clients. Cammy Mack suggested I prepare these forms and send them to our clients for completion. Once they were returned to me, I was to then forward them to you to update the DWIS list for each client.

On February 13th I had a couple of lengthy conversations with Cammy Mack. She indicated that nothing should be included on the Notification form that isn't Table A, B, C, or D, unless it is part of a Minister's Control Document (C of A or Director's Order).

I explained that I had provided our clients with Notification forms listing all the possible parameters that we come across and are accredited for (including chloramines). She mentioned that this is the wrong way to go about it as they will be expecting results from Accutest for those parameters and it may look like the waterworks is in non-compliance. She suggested that I contact you and have you remove globally these extra parameters.

The checklists enclosed are to help you sort out these details. Let me know if you need any clarification.

Sincerely,

Robert Walker, cCT
Accutest Laboratories Ltd.
rwalker@accutestlabs.com

I had not received back the checklists from the following clients:

Accutest Ottawa
Meadowlands Village Mobile Home Park (260023036)
Rockhaven Mobile Home Park (260007556)
Accutest Kingston
Meadowview Apartments Well Supply (260019799)
Mississippi Lake Camping (260007972)
Pinegrove Apartments Well Supply (260019786)

and have, therefore, not included them in this package.

UPDATED JAN 07 2003

Ontario — Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

DATE OF SUBMISSION (dd/mm/yy): 23/12/2002 | DATE RECEIVED (dd/mm/yy):

NEW SUBMISSION ☐ UPDATED SUBMISSION ☑

WATERWORKS INFORMATION

NAME OF WATERWORKS: CREG QUAY WATERWORKS #: 220008943

LOCATION OF WATERWORKS:
212316, South Service Road, Bainsville (Street # and Name / Town/City) Ontario, K0C 1E0 (Postal Code)

CONTACT NAME: Jacqueline Rose POSITION / TITLE: Director assistant
PHONE: 613-347-2705 FAX: 613-347-7514 E-Mail: —

ADDRESS: 212316, South Service Road, Bainsville (Street # and Name / Town/City) Ontario, K0C 1E0 (Postal Code)

WATERWORKS OWNER: ☐ MUNICIPAL, NAME ☐ PROVINCIAL, NAME
☐ FEDERAL, NAME ☐ INDUSTRIAL, NAME
☑ PRIVATE, NAME Corporation of CREG QUAY ☐ OTHER, NAME

WATER SOURCE: ☑ GROUND ☐ SURFACE, NAME OF WATER BODY

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories For Analysis:

E. coli - Membrane Filtration	☒
Fecal coliform - Membrane Filtration	☒
Total coliform - Membrane Filtration	☒
Total coliform background - Membrane Filtration	☒
HPC- Membrane Filtration	☒
E.coli - Presence/Absence	☐
Fecal coliform - Presence/Absence	☐
Total coliform - Presence/Absence	☐
E.coli - Most Probable Number	☐
Fecal Coliform - Most Probable Number	☐
Total Coliform - Most Probable Number	☐
Heterotrophic Plate Count - Spread Plate	☐
Heterotrophic Plate Count - Pour Plate	☐

Other Microbiological Parameter(s) Identified in a MOE Certificate of Approval, Order or Direction:

Name of Accredited Laboratory:
Address: ACCUTEST LABORATORIES LTD. 8-146 COLONNADE RD. OTTAWA, ON K2E 7Y1
Phone: (613) 727-5892 Fax: (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

1,2-dichlorobenzene	☐	Tetrachloroethylene	☐
1,4-dichlorobenzene	☐	Trichloroethylene	☐
1,2-dichloroethane	☐	Trihalomethanes	☐
1,1-dichloroethylene	☐	Toluene	☐
Benzene	☐	Vinyl Chloride	☐
Carbon Tetrachloride	☐	Xylene	☐
Dichloromethane	☐	Ethylbenzene	☐
Monochlorobenzene	☐		
All of the above	☒		

Other Volatile Organic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.
Address: 8-146 COLONNADE RD. OTTAWA, ON K2E 7Y1
Phone: (613) 727-5892 Fax: (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

*Cyanide	☒
*Chloramines	☐
*Turbidity	☒
*Nitrilotriacetic acid (NTA)	☐

* Found in Schedule A of the Regulation

Other Operational Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

pH, CONDUCTIVITY, COLOUR
HARDNESS, ALKALINITY
DOC, TOC

Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.
Address: 8-146 COLONNADE RD. OTTAWA, ON K2E 7Y1
Phone: (613) 727-5892 Fax: (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

Barium	☐	Copper	☐
Boron	☐	Iron	☐
Cadmium	☐	Lead	☐
Chromium	☐	Manganese	☐
Arsenic	☐	Selenium	☐
Mercury	☐	Nitrate + Nitrite	☐
Uranium	☐		
Sodium	☐		
Fluoride	☐		
All of the above	☒		

Other Inorganic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

ZINC, ALUMINUM

Name of Accredited Laboratory: ACCUTEST LABORATORIES LTD.
Address: 8-146 COLONNADE RD. OTTAWA, ON K2E 7Y1
Phone: (613) 727-5892 Fax: (613) 727-5222
E-Mail: info@accutestlabs.com
Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised - September 2002

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

1,2-dichlorobenzene	☐	Tetrachloroethylene	☐
1,4-dichlorobenzene	☐	Trichloroethylene	☐
1,2-dichloroethane	☐	Trihalomethanes	☐
1,1-dichloroethylene	☐	Toluene	☐
Benzene	☐	Vinyl Chloride	☐
Carbon Tetrachloride	☐	Xylene	☐
Dichloromethane	☐	Ethylbenzene	☐
Monochlorobenzene	☐		
All of the above	☐		

Other Volatile Organic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory:

Address:

Phone: Fax:

E-Mail:

Comments:

*Cyanide	☐
*Chloramines	☐
*Turbidity	☐
*Nitrilotriacetic acid (NTA)	☒

* Found in Schedule 4 of the Regulation

Other Operational Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

Name of Accredited Laboratory: MAXXAM ANALYTICS INC.

Address: 5540 McADAM RD. MISSISSAUGA, ON L4Z 1P1

Phone: (905) 890-2555 Fax: (905) 890-0370

E-Mail: info@on.maxxam.ca

Comments:

Barium	☐	Copper	☐
Boron	☐	Iron	☐
Cadmium	☐	Lead	☐
Chromium	☐	Manganese	☐
Arsenic	☐	Selenium	☐
Mercury	☐	Nitrate + Nitrite	☐
Uranium	☐		
Sodium	☐		
Fluoride	☐		
All of the above	☐		

Other Inorganic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory:

Address:

Phone: Fax:

E-Mail:

Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	X	Glyphosate	X
2,4-dichlorophenol	X	Heptachlor + Heptachlor Epoxide	X
2,4,6-trichlorophenol	X	Lindane	X
2,4-D	X	Malathion	X
2,4,5-T	X	Methoxychlor	X
Alachlor	X	Metolachlor	X
Aldicarb	X	Metribuzin	X
Aldrin + Dieldrin	X	Paraquat	X
Atrazine + Metabolites	X	Parathion	X
Azinphos-methyl	X	PCBs	X
Bendiocarb	X	Pentachlorophenol	X
Bromoxynil	X	Phorate	X
Carbaryl	X	Picloram	X
Carbofuran	X	Prometryne	X
Chlordane (Total)	X	Simazine	X
Chlorpyrifos	X	Temephos	X
Cyanazine	X	Terbufos	X
DDT + Metabolites	X	Triallate	X
Diazinon	X	Trifluralin	X
Dicamba	X		
Dichlorp-methyl	X		
Dimethoate	X		
Dinoseb	X		
Diquat	X		
Diuron	X		

*Nitrosodimethylamine (NDMA)	☐
*Benzo(a)pyrene	X
*Radionuclides	☐
*Dioxins and furans	☐

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) Identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory: MAXXAM ANALYTICS INC.

Address: 5540 McADAM RD. MISSISSAUGA, ON L4Z 1P1

Phone: (905) 890-2555 **Fax:** (905) 890-0370

E-Mail: info @ on.maxxam.ca

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS (O. Reg. 459/00)

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☐	Glyphosate	☐
2,4-dichlorophenol	☐	Heptachlor +Heptachlor Epoxide	☐
2,4,6-trichlorophenol	☐	Lindane	☐
2,4-D	☐	Malathion	☐
2,4,5-T	☐	Methoxychlor	☐
Alachlor	☐	Metolachlor	☐
Aldicarb	☐	Metribuzin	☐
Aldrin + Dieldrin	☐	Paraquat	☐
Atrazine + Metabolites	☐	Parathion	☐
Azinphos-methyl	☐	PCBs	☐
Bendiocarb	☐	Pentachlorophenol	☐
Bromoxynil	☐	Phorate	☐
Carbaryl	☐	Picloram	☐
Carbofuran	☐	Prometryne	☐
Chlordane (Total)	☐	Simazine	☐
Chlorpyrifos	☐	Temephos	☐
Cyanazine	☐	Terbufos	☐
DDT + Metabolites	☐	Triallate	☐
Diazinon	☐	Trifluralin	☐
Dicamba	☐		
Dichlorophenoxy-methyl	☐		
Dimethoate	☐		
Dinoseb	☐		
Diquat	☐		
Diuron	☐		

*Nitrosodimethylamine (NDMA)	☒
*Benzo(a)pyrene	☐
*Radionuclides	☐
*Dioxins and furans	☒

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory:
MAXXAM ANALYTICS INC.
Address: 50 BATHURST DR., UNIT 12
WATERLOO, ON
Phone: (519) 747-3575 Fax: (519) 747-3806

E-Mail:

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

Ontario

Ministry of the Environment | Ministère de l'Environnement

Revised -September 2002

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☐	Glyphosate	☐
2,4-dichlorophenol	☐	Heptachlor +Heptachlor Epoxide	☐
2,4,6-trichlorophenol	☐	Lindane	☐
2,4-D	☐	Malathion	☐
2,4,5-T	☐	Methoxychlor	☐
Alachlor	☐	Metolachlor	☐
Aldicarb	☐	Metribuzin	☐
Aldrin + Dieldrin	☐	Paraquat	☐
Atrazine + Metabolites	☐	Parathion	☐
Azinphos-methyl	☐	PCBs	☐
Bendiocarb	☐	Pentachlorophenol	☐
Bromoxynil	☐	Phorate	☐
Carbaryl	☐	Picloram	☐
Carbofuran	☐	Prometryne	☐
Chlordane (Total)	☐	Simazine	☐
Chlorpyrifos	☐	Terbufos	☐
Cyanazine	☐	Triallate	☐
DDT + Metabolites	☐	Trifluralin	☐
Diazinon	☐		
Dicamba	☐		
Dichlorop-methyl	☐		
Dimethoate	☐		
Dinoseb	☐		
Diquat	☐		
Diuron	☐		

*Nitrosodimethylamine (NDMA)	☐
*Benzo(a)pyrene	☐
*Radionuclides	☒
*Dioxins and furans	☐

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory: BECKNGELL LABORATORIES INC.

Address: 6740 KITIMAT RD., UNIT 4
MISSISSAUGA, ON L5N 5L9

Phone: (905) 826-3080 **Fax:** (905) 826-4151

E-Mail:

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

Ontario

Ministry of the Environment / Ministère de l'Environnement

Revised -September 2002

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Have you taken measures to ensure that ALL laboratories that you use are accredited for the specific testing and are aware of their requirements for reporting data?

Yes ☑ No ☐ Comments:

Have you provided the appropriate laboratories with the Ontario Ministry of the Environment standards for other parameters that you are required to test but which are not listed in the Schedule 4, Ontario Regulation 459/00?

Yes ☑ No ☐ Comments:

Prepared By (please print): Jean-Pierre Azzopardi

Signature: _____ Date: [illegible] 2003

Title: [illegible]

Please send completed form to:

Ministry of the Environment
Laboratory Services Branch
125 Resources Road
Etobicoke, Ontario
M9P-3V6
Attention: Laboratory Director

Fax: (416) 235-5744 or (416) 235-6312

For further information contact:

Ministry of the Environment
Laboratory Services Branch
Customer Service Section
Phone: (416) 235-6311

UPDATED
SEP 16 2002

Page 1 of 4
Revised - August 2001

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

UPDATED
NOV 23 2002

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 458/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

DATE OF SUBMISSION (dd/mm/yy): 12-09-02 | DATE RECEIVED (dd/mm/yy):

NEW SUBMISSION ☐ UPDATED SUBMISSION ☒

WATERWORKS INFORMATION

NAME OF WATERWORKS: CREG QUAY LIMITED WATERWORKS #: 220008943

LOCATION OF WATERWORKS:
21236 SOUTH SERVICE Rd. (Street # and Name) SOUTAGLENGARRY (Town/City) Ontario, K0C 1E0 (Postal Code)

CONTACT NAME: SHAWN KILLORAN POSITION / TITLE: OPERATIONS MANAGER
PHONE: 613-931-3036 FAX: 613-931-3340 E-Mail:

ADDRESS: 6 OAK ST. LANCASTER P.O Box 220 (Street # and Name) (Town/City) Ontario, K0C 1M0 (Postal Code)

WATERWORKS OWNER: ☐ MUNICIPAL, NAME ☐ PROVINCIAL, NAME
☐ FEDERAL, NAME ☐ INDUSTRIAL, NAME
☒ PRIVATE, NAME CREG QUAY ☐ OTHER, NAME

WATER SOURCE: ☒ GROUND ☐ SURFACE, NAME OF WATER BODY

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories For Analysis:

E. coli - Membrane Filtration	☒
Fecal coliform - Membrane Filtration	☒
Total coliform - Membrane Filtration	☒
Total coliform background - Membrane Filtration	☒
HPC- Membrane Filtration	☒
E.coli - Presence/Absence	☐
Fecal coliform - Presence/Absence	☐
Total coliform - Presence/Absence	☐
E.coli - Most Probable Number	☐
Fecal Coliform - Most Probable Number	☐
Total Coliform - Most Probable Number	☐
Heterotrophic Plate Count - Spread Plate	☐
Heterotrophic Plate Count - Pour Plate	☐

Other Microbiological Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

Name of Accredited Laboratory:

Address: Accutest Laboratories Ltd.
146 Colonnade Rd., Unit 6
Ottawa, ON K2E 7Y1

Phone: 613-727-5692 Fax: 613-727-5222

E-Mail: info@accutestlabs.com

Comments:

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

1,2-dichlorobenzene	☐	Tetrachloroethylene	☐
1,4-dichlorobenzene	☐	Trichloroethylene	☐
1,2-dichloroethane	☐	Trihalomethanes	☐
1,1-dichloroethylene	☐	Toluene	☒
Benzene	☐	Vinyl Chloride	☐
Carbon Tetrachloride	☐	Xylene	☐
Dichloromethane	☐	Ethylbenzene	☐
Monochlorobenzene	☐		
All of the above	☒		

Other Volatile Organic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

Name of Accredited Laboratory:

Accutest Laboratories Ltd.
Address: 146 Colonnade Rd., Unit 8
Ottawa, ON K2E 7Y1

Phone: 613-727-5692 Fax: 613-727-5222

E-Mail: info@accutestlabs.com

Comments:

*Cyanide	☒
*Chloramines	☐
*Turbidity	☒
*Nitrilotriacetic acid (NTA)	☐

* Found in Schedule 4 of the Regulation

Other Operational Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

Fluoride, Colour, pH,
Hardness, Alkalinity, Sodium

Name of Accredited Laboratory:

Accutest Laboratories Ltd.
Address: 146 Colonnade Rd., Unit 8
Ottawa, ON K2E 7Y1

Phone: 613-727-5692 Fax: 613-727-5222

E-Mail: info@accutestlabs.com

Comments:

Barium	☐	Copper	☐
Boron	☐	Iron	☐
Cadmium	☐	Lead	☐
Chromium	☐	Manganese	☐
Arsenic	☒	Selenium	☐
Mercury	☐	Nitrate + Nitrite	☐
Uranium	☐		
All of the above	☒		

Other Inorganic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

Zinc, Aluminum

Name of Accredited Laboratory:

Accutest Laboratories Ltd.
Address: 146 Colonnade Rd., Unit 8
Ottawa, ON K2E 7Y1

Phone: 613-727-5692 Fax: 613-727-5222

E-Mail: info@accutestlabs.com

Comments:

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00 *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

1,2-dichlorobenzene	☐	Tetrachloroethylene	☐
1,4-dichlorobenzene	☐	Trichloroethylene	☐
1,2-dichloroethane	☐	Trihalomethanes	☐
1,1-dichloroethylene	☐	Toluene	☐
Benzene	☐	Vinyl Chloride	☐
Carbon Tetrachloride	☐	Xylene	☐
Dichloromethane	☐	Ethylbenzene	☐
Monochlorobenzene	☐		
All of the above	☐		

Other Volatile Organic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory:

Address:

Phone: Fax:

E-Mail:

Comments:

*Cyanide	☐
*Chloramines	☐
*Turbidity	☐
*Nitrilotriacetic acid (NTA)	☐

* Found in Schedule 4 of the Regulation

Other Operational Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

Name of Accredited Laboratory:

Address: Maxxam Analytics Inc.
5540 McAdam Rd.
Mississauga, ON L4Z 1P1

Phone: 905-890-2555 Fax: 905-890-0370

E-Mail: info@on.maxxam.ca

Comments:

Barium	☐	Copper	☐
Boron	☐	Iron	☐
Cadmium	☐	Lead	☐
Chromium	☐	Manganese	☐
Arsenic	☐	Selenium	☐
Mercury	☐	Nitrate + Nitrite	☐
Uranium	☐		
All of the above	☐		

Other Inorganic Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

Name of Accredited Laboratory:

Address:

Phone: Fax:

E-Mail:

Comments:

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

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Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☐	Glyphosate	☐
2,4-dichlorophenol	☐	Heptachlor + Heptachlor Epoxide	☐
2,4,6-trichlorophenol	☐	Lindane	☐
2,4-D	☐	Malathion	☐
2,4,5-T	☐	Methoxychlor	☐
Alachlor	☐	Metolachlor	☐
Aldicarb	☐	Metribuzin	☐
Aldrin + Dieldrin	☐	Paraquat	☐
Atrazine + Metabolites	☐	Parathion	☐
Azinphos-methyl	☐	PCBs	☐
Bendiocarb	☐	Pentachlorophenol	☐
Bromoxynil	☐	Phorate	☐
Carbaryl	☐	Picloram	☐
Carbofuran	☐	Prometryne	☐
Chlordane (Total)	☐	Simazine	☐
Chlorpyrifos	☐	Temephos	☐
Cyanazine	☐	Terbufos	☐
DDT + Metabolites	☐	Triallate	☐
Diazinon	☐	Trifluralin	☐
Dicamba	☐		
Diclofop-methyl	☐		
Dimethoate	☐		
Diuron	☐		

*Nitrosodimethylamine (NDMA)	☐
*Benzo(a)pyrene	☐
*Radionuclides	☐
*Dioxins and furans	☐

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory:

Maxxam Analytics Inc.
Address: 5540 McAdam Rd.
Mississauga, ON L4Z 1P1

Phone: 905-890-2555 Fax: 905-890-0370

E-Mail: info@on.maxxam.ca

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: Fax:

E-Mail:

Comments:

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☐	Glyphosate	☐
2,4-dichlorophenol	☐	Heptachlor +Heptachlor Epoxide	☐
2,4,6-trichlorophenol	☐	Lindane	☐
2,4-D	☐	Malathion	☐
2,4,5-T	☐	Methoxychlor	☐
Alachlor	☐	Metolachlor	☐
Aldicarb	☐	Metribuzin	☐
Aldrin + Dieldrin	☐	Paraquat	☐
Atrazine + Metabolites	☐	Parathion	☐
Azinphos-methyl	☐	PCBs	☐
Bendiocarb	☐	Pentachlorophenol	☐
Bromoxynil	☐	Phorate	☐
Carbaryl	☐	Picloram	☐
Carbofuran	☐	Prometryne	☐
Chlordane (Total)	☐	Simazine	☐
Chlorpyrifos	☐	Temephos	☐
Cyanazine	☐	Terbufos	☐
DDT + Metabolites	☐	Triallate	☐
Diazinon	☐	Trifluralin	☐
Dicamba	☐		
Diclofop-methyl	☐		
Dimethoate	☐		
Dinoseb	☐		
Diquat	☐		
Diuron	☐		

*N-nitrosodimethylamine (NDMA) ☐
*Benzo(a)pyrene ☐
*Radionuclides ☐
*Dioxins and furans ☐

*** Found in Schedule 4 of the Regulation**

All of the above ☐

Other Parameter(s) Identified in a MOE Certificate of Approval, Order or Direction:

____
____
____
____

(1) Name of Accredited Laboratory: Maxxam Analytics Inc.

Address: 50 Bathurst Dr., Unit 12
Waterloo, ON

Phone: 519-747-2575 **Fax:** 519-747-3806

E-Mail:

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

Ontario
Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 452/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Please Provide a Check Next to All of the Parameters that are Required and Performed by ALL Accredited Laboratories for Analysis:

2,3,4,6-tetrachlorophenol	☐	Glyphosate	☐
2,4-dichlorophenol	☐	Heptachlor +Heptachlor Epoxide	☐
2,4,6-trichlorophenol	☐	Lindane	☐
2,4-D	☐	Malathion	☐
2,4,5-T	☐	Methoxychlor	☐
Alachlor	☐	Metolachlor	☐
Aldicarb	☐	Metribuzin	☐
Aldrin + Dieldrin	☐	Paraquat	☐
Atrazine + Metabolites	☐	Parathion	☐
Azinphos-methyl	☐	PCBs	☐
Bendiocarb	☐	Pentachlorophenol	☐
Bromoxynil	☐	Phorate	☐
Carbaryl	☐	Picloram	☐
Carbofuran	☐	Prometryne	☐
Chlordane (Total)	☐	Simazine	☐
Chlorpyrifos	☐	Temephos	☐
Cyanazine	☐	Terbufos	☐
DDT + Metabolites	☐	Triallate	☐
Diazinon	☐	Trifluralin	☐
Dicamba	☐		
Dichlorp-methyl	☐		
Dimethoate	☐		
Diuron	☐		
Diquat	☐		

*Nitrosodimethylamine (NDMA)	☐
*Benzo(a)pyrene	☐
*Radionuclides	☐
*Dioxins and furans	☐

* Found in Schedule 4 of the Regulation

All of the above ☐

Other Parameter(s) identified in a MOE Certificate of Approval, Order or Direction:

_____

_____

_____

_____

(1) Name of Accredited Laboratory:

Becquerel Laboratories Inc.
Address: 6790 Kitimat Road, Unit 4
Mississauga, ON L5N 5L9

Phone: 905-826-3080 **Fax:** 905-826-4151

E-Mail:

Comments:

(2) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

(3) Name of Accredited Laboratory (if applicable):

Address:

Phone: **Fax:**

E-Mail:

Comments:

Ontario

Ministry of the Environment

NOTIFICATION OF LABORATORY SERVICES PROVIDED TO WATERWORKS

Waterworks Owners are Responsible for Ensuring that the Following Information is Up-to-Date and Accurate

This form must be completed and delivered to the Ministry at least three working days prior to the first analysis and three days prior to any change of the laboratory coming into effect, as specified in Ontario Regulation 459/00. *(Failure to notify these parties in accordance with the Regulation constitutes an offence under the Ontario Water Resources Act.)*

Have you taken measures to ensure that ALL laboratories that you use are accredited for the specific testing and are aware of their requirements for reporting data?

Yes ☒ No ☐ Comments:

Have you provided the appropriate laboratories with the Ontario Ministry of the Environment standards for other parameters that you are required to test but which are not listed in the Schedule 4, Ontario Regulation 459/00?

Yes ☒ No ☐ Comments:

Prepared By (please print): SHAWN KILLORAN

Signature: [signature] Date: Sept. 12, 02

Title: OPERATIONS MANAGER.

Please send completed form to:

Ministry of the Environment
Laboratory Services Branch
125 Resources Road
Etobicoke, Ontario
M9P-3V6
Attention: Laboratory Director

Fax: (416) 236-6744 or (416) 235-6312

For further information contact:

Ministry of the Environment
Laboratory Services Branch
Customer Service Section
Phone: (416) 235-6311

The Corporation of the
Township of South Glengarry

6 Oak Street, P.O. Box 220,
Lancaster, Ontario K0C 1N0

FAX

Date: Sept 12/02

Number of pages including cover sheet: 8

To: Mr Cammy MACK

Re: Notification of Laboratory Services

Fax phone: 416-235-6312

CC:

From: Shawn Killoran
Water and Wastewater Plant Manager
Phone: 613-931-3036
Fax phone: 613-931-3340

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

Please be notified that the Township of South Glengarry will be collecting water samples on behalf of Craig Quarry Limited. Notification of laboratory services provided to waterworks are attached.

Shawn Killoran

APPENDIX L

LABORATORY ACCREDITATION

(SEE ATTACHED)

CERTIFICATE OF ACCREDITATION

Standards Council of Canada
Conseil canadien des normes

CERTIFICAT D'ACCRÉDITATION

ACCUTEST LABORATORIES LTD.

146 Colonnade Road, Unit 8, Nepean, Ontario

having been assessed by the Canadian Association for Environmental Analytical Laboratories (CAEAL) Inc., under the authority of the Standards Council of Canada (SCC), and found to conform with the requirements of ISO/IEC 17025, the conditions established by the SCC and the CAEAL proficiency testing program, is hereby recognized as an

ACCREDITED ENVIRONMENTAL LABORATORY

for specific tests or types of tests listed in the scope of accreditation approved by the Standards Council of Canada.

ayant été soumis à une évaluation par l'Association canadienne des laboratoires d'analyse environnementale (ACLAE) Inc., sous l'autorité du Conseil canadien des normes (CCN), et ayant été trouvé conforme aux prescriptions d'ISO/CEI 17025, ainsi qu'aux conditions établies par le CCN et par le programme d'essais d'aptitude de l'ACLAE, est de fait reconnu comme étant un

LABORATOIRE ENVIRONNEMENTAL ACCRÉDITÉ

pour les essais ou types d'essais déterminés inscrits dans la portée d'accréditation approuvée par le Conseil canadien des normes.

Accredited Laboratory No.: / Numéro de laboratoire accrédité : 164

Accreditation date: / Date d'accréditation : 1995-03-06

Issued on: / Délivré le : 2003-01-24

Expiry date: / Date d'expiration : 2007-03-06

Chairman (SCC) / Président (CCN)

Assessment performed according to CAN-P-4 (ISO/IEC 17025), *Requirements for the Competence of Environmental Analytical Laboratories*, CAN/CSA-Z753 and the conditions of the *PALCAN Handbook* D92.6. Laboratories that conform with the requirements of ISO/IEC 17025 operate a Quality Management System for testing and calibration activities that meets the requirements of ISO 9001: 1994 when designing/developing new methods, and/or developing test programs that combine standard and non-standard test and calibration methods; or meets ISO 9002 when only standard methods are used. The scope of accreditation is available from the accredited laboratory or SCC. To verify the validity of the certificate, please see the listing of Accredited Laboratories on www.scc.ca.

Évaluation effectuée conformément au CAN-P-4 (ISO/CEI 17025), aux *Exigences visant les compétences des laboratoires d'analyse de l'environnement* (CAN/CSA-Z753) et aux conditions du *Guide PALCAN* D92.6. Pour concevoir et développer des méthodes nouvelles et établir des programmes d'essais fondés sur des méthodes d'essai et d'étalonnage normalisées et non normalisées, les laboratoires respectent la norme ISO/CEI 17025 ont, dans leurs essais et leur étalonnage, recours à un système de management de la qualité conforme aux exigences d'ISO 9001:1994, et à celles d'ISO 9002 dans le seul cas des méthodes normalisées. Pour connaître la portée d'accréditation, s'adresser soit au laboratoire accrédité, soit au CCN. Pour vérifier la validité du présent certificat, consultez la liste des *Laboratoires accrédités* à l'adresse www.scc.ca.

Canada

Standards Council of Canada
Conseil canadien des normes

200-270, rue Albert St.
Ottawa, ON (Canada)
K1P 6N7

Canada

Tel.: +1 613 238 3222
Fax.: +1 613 569 7808
E-mail/Courriel : info@scc.ca
Internet: http://www.scc.ca

SCOPE OF ACCREDITATION

ACCUTEST LABORATORIES LTD.
146 Colonnade Road, Unit 8
Nepean, Ontario K2E 7Y1

Accredited Laboratory No. 164
(Conforms with requirements of ISO/IEC 17025)

CONTACT: Mr. Peter Haulena TEL.: (613) 727-5692
FAX.: (613) 727-5222
EMAIL: phaulena@accutestlabs.com

CLIENTS SERVED: All interested parties.

FIELD(S) OF TESTING: Biological and Chemical/Physical.

PROGRAM SPECIALTY AREA: Environmental

ISSUED ON: 2003-01-28 VALID TO: 2007-03-06

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental:

Oil

(PCB - Oil)

AMPCBOE5; based on EPA 8081	GC/ECD - SOLVENT DILUTION/DIRECT INJECTION Total PCB

Soil/Sediment

(BTEX - Soil)

AMVOMSE8; based on EPA 8260	GC/MS - PURGE & TRAP Benzene

Standards Council of Canada Accredited Laboratory No. 164

	Ethyl Benzene
	m/p-xylene
	o-xylene
	Toluene
(Hydrides - Soil)	
AMHYSLE2; based on SM 3114	HYDRIDE AA - DIGESTION
	Antimony
	Arsenic
	Selenium
(Mercury - Soil)	
AMHGDAE2; based on SM 3112	COLD VAPOUR AA - DIGESTION
	Mercury
(Metals - Soil/ICP-AES)	
AMMICPE8; based on EPA 3050	ICP - AES - DIGESTION
	Aluminum
	Antimony
	Barium
	Beryllium
	Cadmium
	Chromium
	Cobalt
	Copper
	Iron
	Lead
	Manganese
	Molybdenum
	Nickel
	Zinc
(N-NH3 (High Range) - Soil)	
AMNH3HX8; based on SM 4500	DISTILLATION/TITRATION
	Ammonia
(PAH - Soil)	
AMPAMSE8; based on EPA 8270	GC/MS - EXTRACTION
	Acenaphthylene

Standards Council of Canada Accredited Laboratory No. 164

	Acenapthene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenzo (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3 - cd) pyrene Napthalene Phenanthrene Pyrene
(TKN (High Range) - Soil)	
AMTKNHX8; based on SM 4500	DIGESTION - DISTILLATION/TITRATION Total Kjeldahl Nitrogen
(TPH - Soil)	
AMTPHME2; based on MOE TPH-E3398A	GC/FID Diesel Range Hydrocarbons c10-c24
(TPH - Soil)	
AMTPHME2; based on MOE TPH-E3398A	GC/MS - PURGE AND TRAP Gasoline Range Hydrocarbons c5-c9
(TPH - Soil)	
AMTPHME2; based on MOE TPH-E3398A	GRAVIMETRIC Oil and Grease > c24
Water (Inorganic)	
(Alkalinity (pH 4.5) - Water)	
AMAPCAE1; based on SM 2320	TITRIMETRIC Alkalinity (pH 4.5)

OFFICIAL/NON-RESTRICTED
Somers

Standards Council of Canada Accredited Laboratory No. 164

(BOD (5 Day) - Water)	
AMBODEE1; based on SM 5210	D.O. METER BOD (5 day)
(COD - Water)	
AMCODSE1; based on SM 5220	COLOR - DIGESTION COD
(Chloride - Water)	
AMCLCTE1; based on SM 4500	POTENTIOMETRIC TITRATION Chloride
(Chlorine - Water)	
AMCDPDE1; based on SM 4500	DPD - COLOR Chloramine Chlorine, free Chlorine, total
(Colour - Water)	
AMCOLSE1.5; based on SM 2120	COLORIMETRIC Colour
(Conductivity (25°C) - Water)	
AMAPCAE1; based on SM 2510	CONDUCTIVITY METER Conductivity (25°C) TDS (Calculated)
(Cyanide - Water)	
AMCNTDE1; based on EPA 335.4	DISTILLATION - AUTO COLOUR Cyanide (SAD)
(DOC/TOC - Water)	
AMDOCCE1.1; based on SM 5310 B	IR - COMBUSTION DOC TOC

Standards Council of Canada Accredited Laboratory No. 164

(Fluoride - Water)

AMFISEE1; based on SM 4500-F	SELECTIVE ION ELECTRODE Fluoride

(Hydride Metals - Water)

AMHYAAE1; based on SM 3114 C	HYDRIDE AA - DIGESTION Total Antimony Total Arsenic Total Selenium

(Major Ions - Water/IC)

AMANICE1; based on SM 4110	ION CHROMATOGRAPHY Bromide Chloride Fluoride Nitrate Nitrate plus Nitrite Nitrite Sulfate

(Mercury - Water)

AMHGCTE1; based on SM 3112	COLD VAPOUR AA - DIGESTION Mercury

(Metals - Water/AA Flame)

AMAMFAE8; based on SM 3111	AA - FLAME Dissolved Calcium Dissolved Magnesium Hardness Potassium Sodium

(Metals - Water/ICP)

AMMICPE8; based on SM 3120	ICP/AES Dissolved Aluminum Dissolved Barium Dissolved Beryllium Dissolved Boron

Standards Council of Canada Accredited Laboratory No. 164

Dissolved Cadmium
Dissolved Calcium
Dissolved Chromium
Dissolved Cobalt
Dissolved Copper
Dissolved Iron
Dissolved Lead
Dissolved Magnesium
Dissolved Manganese
Dissolved Molybdenum
Dissolved Nickel
Dissolved Silicon
Dissolved Silver
Dissolved Strontium
Dissolved Thallium
Dissolved Titanium
Dissolved Vanadium
Dissolved Zinc
Hardness
Potassium
Sodium

(Metals - Water/ICP/MS)

AMMIMSE1; based on EPA 200.8

ICP/MS
Dissolved Antimony
Dissolved Arsenic
Dissolved Cadmium
Dissolved Chromium
Dissolved Cobalt
Dissolved Copper
Dissolved Lead
Dissolved Selenium
Dissolved Silver
Dissolved Thallium
Dissolved Tin
Dissolved Uranium
Dissolved Vanadium

(N-NH3 (High Range) - Water)

AMNH3HX8; based on SM 4500

DISTILLATION/TITRATION
Ammonia

Standards Council of Canada Accredited Laboratory No. 164

(N-NH3 - Water)

AMNH3LE1; based on SM 4500-NNH3	AUTO - PHENATE Ammonia N-NH4 Unionized N-NH3

(NO3/NO3+NO2 - Water)

AMNO23E1; based on SM 4500-NO3-F	AUTO COLOR Nitrate Nitrate plus Nitrite Nitrite

(Nitrate - Water)

AMN03EE1; based on SM 4500	SELECTIVE ION ELECTRODE Nitrate

(Oil & Grease - Water)

AMOGHXE1; based on MOE METHOD DECPH-E3421	HEXANE EXTRACTION - GRAVIMETRIC Oil and Grease

(PH - Water)

AMAPCAE1; based on SM 4500 - H+	pH METER pH

(Phenols - Water)

AMPHACE2; based on SM 5530	4-AA P- AUTOMATED Phenols

(Phosphate - Water)

AMTPMDE1; based on SM 4500-P	COLOR Orthophosphate Phosphate

Standards Council of Canada Accredited Laboratory No. 164

(Phosphorus - Total - Water)	
AMTPMDE1; based on SM 4500 - P	COLOR - DIGESTION Total Phosphorus
(Silica - Reactive - Water)	
AMSIO2E1; based on SM 4500-SiE	COLOR Reactive Silica
(TKN (High Range) - Water)	
AMTKNHX8; based on SM 4500	DIGESTION - DISTILLATION/TITRATION Total Kjeldahl Nitrogen
(TKN - Water)	
AMTKNLE1; based on SM 4500 - NORG	COLOR - DIGESTION Total Kjeldahl Nitrogen
(Total Suspended Solids - Water)	
AMSOLWE1; based on SM 2545	GRAVIMETRIC TDS Total Suspended Solids
(Turbidity - Water)	
AMTURBE1; based on SM 2130	TURBIDIMETRIC Turbidity
Water (Microbiology)	
(Bacteria - Water)	
AMBCOLM1; based on SM 9221	PRESESENCE - ABSENCE Pollution Indicating Bacteria
(Coliforms - Water (DC))	
AMBCOLM1; based on SM 9222	MEMBRANE FILTRATION Escherichia Coli (E. coli)

Standards Council of Canada Accredited Laboratory No. 164

	Total Coliforms
(Coliforms - Water (mEndo Agar, mFC and EC))	
AMBCOLM1; based on SM 9222	MEMBRANE FILTRATION Background Counts Escherichia Coli (E. coli) Fecal Coliforms Total Coliforms
(Faecal Streptococcus - Water)	
AMBCOLM1; based on SM 9230	MEMBRANE FILTRATION Faecal Streptococcus
(Heterotrophic Plate Count - Water)	
AMBCOLM1; based on SM 9215	MEMBRANE FILTRATION Heterotrophic Plate Count (HPC)
(Pseudomonas Aeruginosa - Water)	
AMBCOLM1; based on SM 9213	MEMBRANE FILTRATION Pseudomonas Aeruginosa
Water (Organic)	
(Carbamates - Water)	
AMCADLE1.1; VARIAN SAMPLE PREPARATION APPLICATION NOTE MO503	HPLC - AQUEOUS INJECTION Aldicarb Diuron
(Diquat/Paraquat - Water)	
AMDQPQE1; based on EPA 549.2	HPLC - AQUEOUS INJECTION Diquat Paraquat
(Glycols - Water)	
AMGLYCE1; based on NIOSH 5523	GC/FID

OFFICIAL/NON-RESTRICTED
Somers

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	Diclofop-methyl
	Dimethoate
	Malathion
	Metolachlor
	Metribuzin
	Parathion
	Phorate
	Prometryne
	Simazine
	Temephos
	Terbufos
	Triallate
	Trifluralin

(Pesticides/PCB - Water)

AMOCPEE8; based on EPA 8081	GC/ECD - LIQUID/LIQUID EXTRACTION
	A -BHC
	a-chlordane
	Aldrin
	beta-BHC
	delta-BHC
	Dieldrin
	Endosulfan I
	Endosulfan II
	Endrin
	g-chlordane
	Heptachlor
	Heptachlor Epoxide
	Lindane
	Mirex
	o,p' - DDT
	o-chlordane
	p,p' - DDT
	p,p' Methoxychlor
	p,p'-DDD
	p,p'-DDE
	Total Chlordane
	Total PCB

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(Phenolics - Water)

AMBNASE1; based on EPA 8270	GC/MS - EXTRACTION 2,3,4,6-tetrachlorophenol 2,4,6-trichlorophenol 2,4-dichlorophenol

(Phenoxyacid Herbicides - Water)

AMPOXE1; based on EPA 8151	SOLID PHASE EXTRACTION, METHYLATION AND GC/MS 2,4,5-trichlorophenoxyacetic acid 2,4-dichlorophenoxyacetic acid Bromoxynil Dicamba Dinoseb Pentachlorophenol Picloram

(TPH - Water)

AMTPHME1; based on EPA 3510	GC/FID Diesel Range Hydrocarbons c10-c24

(TPH - Water)

AMTPHME1; based on EPA 3510	GC/MS - PURGE AND TRAP Gasoline Range Hydrocarbons c5-c9

(Tannin and Lignin - Water)

AMTNLNE1; based on SM 5550	COLORIMETRIC Tannin and Lignin

(VOC's - Water)

AMVOMSE8; based on EPA 8260	GC/MS - PURGE & TRAP 1,1,1,2-tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-dichloroethylene 1,2-dichlorobenzene

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1,2-dichloroethane
1,2-Dichloroethylene
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,4-dichlorobenzene
Benzene
Bromodichloromethane
Bromoform
Bromomethane
c/t-1,2-dichloroethylene
c/t-1,2-dichloropropylene
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
Dichloromethane
Ethylbenzene
m-dichlorobenzene
m/p-xylene
o-dichlorobenzene
o-xylene
p-dichlorobenzene
Styrene
Tetrachloroethylene
Toluene
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

Standards Council of Canada Accredited Laboratory No. 164

P. Paladino, P. Eng., Director Conformity Assessment

Date: 2003-01-28

CAEAL 2602, SCC 1003-15/234
Partner: CAEAL

Contact: Mr. Peter Haulena

Signature

Title

Date

APPENDIX M

WATER PLANT REPORT FORM

(SEE ATTACHED)

Ministry of the Environment
Ontario

WATER SUPPLY PLANT PERFORMANCE

MUNICIPALITY _____ YEAR _____

MONTH	PUMPAGES				CHEMICAL QUALITY														PHYSICAL TESTS				PLANT TESTS	
	TOTAL FLOW MIG	AVERAGE DAY MIGD	MAXIMUM DAY MIGD	MAXIMUM RATE MIGD	HARDNESS $CaCO_3$		ALKALINITY $CaCO_3$		IRON Fe		CHLORIDE Cl		pH pH UNITS		FLUORIDE F		NITRATE N		TURBIDITY FORMAZIN		COLOUR HAZEN		CHLORINE RESIDUAL	FLUORINE DOSAGE
					R	T	R	T	R	T	R	T	R	T	R	T	R	T	R	T	R	T		
JAN																								
FEB																								
MAR																								
APR																								
MAY																								
JUNE																								
JULY																								
AUG																								
SEPT																								
OCT																								
NOV																								
DEC																								
TOTAL																								
AVG																								
No OF SAMPLE																								

NOTES: R - T REFERS TO RAW - TREATED SAMPLES

ALL RESULTS IN mg/l UNLESS OTHERWISE STATED.