# **ARCHIVED**

# MUNICIPAL WATER QUALITY REPORTS

**CRYSLER WATER** 



Chesterville Hub
5 Industrial Drive, P.O. Box 460
Chesterville, Ontario K0C 1H0

Tel: (613) 448-3098 Fax: (613) 448-1616 www.ocwa.com

# Fax

DE MOH
33-7930 BUU 268-6061
Dave Markel/
AUS 29/02
(including this page)
Adverse Water Crysler.
will notice on the
sheet. Free Cb at the
question was. 1.3 mg/c.
ing has been initiated.
LS # 220008649



Ministry of the Environment Ministère de l'Environmeme

# Notice of Drinking Water Analysis and Remedial Actions for Waterworks as Required under Drinking Water Protection Regulation

In accordance with the Drinking Water Protection Regulation, Laboratories and Water Works Owners must immediately provide and motification to the MOE Spills Action Centre (SAC) at 1-800-268-6860 or 1-416-325-3000 and the local Medical Officer of Death (MOII) of indicators of adverse drinking water quality and exceedances of standards as multimed in the Regulation and remedial actions taken. Further, within 21 hours of the and notification, the party shall provide written multifection on this completed form by Fax to the Spills Action Centre in 1-800-268-6061 or 1-416-325-3011 and the local Medical Officer of Health. Indicate to multip these parties in occurdance with the degulation constitutes on office, the fact of the Environment (MOE) public web site (www.em.gov.on.co.u or by connecting one MOE office.

PART 1 – NOFIFICATION BY LABORATORY	W. em., gov. on.co.) or by connecting any MOE office:
Indicators of Adverse Phys/Chem Exceeds M. Water Quality Exceeds IM	
ORAL NOTIFICATION to SPILLS ACTION CENTRE by LABOR	TATORY
CADUCEOR TIME 11:39	BY MICHAUL ZIRBAN
Laboratory Name:	Laboratory Emergency Contact Number MICHARY 21888
MARCH PASSES AND	Pusition GRNRRAL MANUAGRIN
Email uddress	Phone " - 52 10 - 0193 Fax " 1013 - 59 p - 0193
Waterworks Numer	Waterwarks Emergency Cantact
Works 230008649	Name BRIR HENDENSON
LACATION VILLAGE OF COMSLERY	Position OPRIVATOR.
Franil Address	14 - 1616 148 - 3098 Fox # 248-1616
NOTIFICATION OF WATER WORKS OWNER	NOTIFICATION OF LOCAL MEDICAL OFFICER OF HEALTH
Person Contacted & 1 VV	Persul Contacted 1882NS NARCHAND
President ADMIN ASISST.	Position ADM IN ASST
06:11 aux 28/80/120ma	11124 Time 11124
Laboratory Written Notification Prepaced by: (Lab Results must be attached using Part 3 of form)  Name (please print (Lab Results must be attached using Part 3 of form)	S188855
Signitute M Della	94/08/05
PART 2 - NOTIFICATION BY WATER WORKS OWNER	
Indicators of Adverse Phys/Chem Exceeds MAG Water Quality Exceeds IMA	
This notification is far operational problems identified at the waterworks; the	
SPILLS ACTION CENTRE ORAL NOTIFICATION BY OWNER	WATERWORKS EMERGENCY CONTACT
Dage AUS 28/02 Trace 1130	NATHER Dave Markell
Waterworks Name Crysler	Prishing Process Tech.
Works # 220008649	Phone # 613-448309B Fax # 613-448-1616
Works Person Providing Oral Notification Dave Markel	
MEDICAL OFFICER OF HEALTH ORAL NOTIFICATION BY OWNER	REMEDIAL ACTIONS TAKEN BY OWNER:
Person Contracted	Resampling Initiated Yes No Increase Chlorine Dose Yes No
trene Marchard	Flushing Mains Yes No
Pasition Recept.	Other Actions Taken Yes No
Phone # 800-262-7120 Fax#613-933-7930	Describe:
Works Person Providing Oral Novilleation Dave Morkell	Other information attached X
Water Works Written Notification Prepared by: Name (please print )	
Signature Mrukur	1 Date Av. 25/02
Cave Muku	currence Report #:



Ministry of the Environmen

Ministère de l'Environnement

PART 3:

# ADVERSE ANALYTICAL RESULTS - For Indicators Listed in SCHEDULE 6 - Drinking Water Protection Regulation

#### Microbiological Testing

Laboratory Sample ID No.	Sample Field ID No.	Date/Time Collected (M/D/Y) (: p.m.)	Sample Type / Location	Membrane Filtration Count/100ml		P-A/100ml Presumptive/ Confirmed (if applicable)	HPC/ 1mi	Date of Analysis (M/D/Y)	
				Total Coliforms	Back- ground	E.coli/ Fecal C.			
2-HEP8.	# 2	sulos/oz	1002-00 Mill #1	ABSANT	-	MOSSINT		2690	50/80KG

# ADVERSE ANALYTICAL RESULTS - For Parameters Listed in SCHEDULE 4 and 5 or in a C of A or Order Drinking Water Protection Regulation

#### Physical/Chemical/Radiological Testing

Laboratory Sample ID No.	Sample Field ID No.	Date/Time Collected (M/D/Y) <sub>a.m.</sub>	Sample Type/ Location	Parameter	Result	Unit	Date of Analysis (M/D/Y)

Laboratory Results Authorized by 71RBRV	30/08/03	
For Ministry Use Only:	Occurrence Report #:	

1402-047 (07/00)

Page \_\_\_ of \_\_\_

Division of Caduceon Enterprises inc.

**Certificate of Analysis** 

Client:

**Ontario Clean Water Agency** 

5 Industrial Dr.

448-1616

Chesterville, ON

1000-846-0081 1613 933-7930

K0C 1H0 Attention:

**Dave Markell** 

Report: Project: 220008934

Crysler WTP

Date Sampled: Date Received: August 26, 2002

Date Printed:

August 27, 2002 August 29, 2002

Matrix:

**Drinking Water** 

Parameter	Unit	MOL	Sample Identifica	tion		
			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. Paul Provost Construction
Total Chlorine	mg/L	0.05		1.40	0.90	0.70
Free Chlorine	mg/L	0.05		1.30	0.70	0.60
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		>600	4	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Caduceon Environmental Laboratories 2378 Holly Lane, Ottawa, Ontario, K1V 7P1, Canada Tel: (613)526-0123, Fax: (613)526-1244

el Ziebell, General Manager

# **Caduceon Laboratories**

#### Bacterialogical Sample Submission Form

Municipality	Crysler	Works # 220008649	Report To	Ontario Clea	an Water A	gency		Telephone: (613) 448-3098				
Source	Wells		Address	5 Industrial I	Drive			Fax: (613) 448-1616				
Sample Type	Bacti	P.O. Box 460				Postal Code	K0C 1H0					
Date Sample	036/08/02	Sampler BILL MICHELS		Chesterville	, Ontario							
Sample ID		Sample Description	Free CL2	Total CL2	E. Coli	Total Coliform	Background	HPC	Reportable Sample			
CRW-01	Well # 1 Raw				x	x	x					
CRW-02	Well # 1 Treated		1.3	1.4	X	x		x	x			
CRW-03	Water To	SWER	•1	. 9	X	X		x	x			
CRW-04	Paul Pro	OUST CONSTRUCTION	.6	.7	X	<b>X</b>	<u></u>		×			
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									/- /			
					·-· · · · · · · · · · · · · · · · · · ·							

c.c. Township of North Stormont, Fax: (613) 984-2908

HP OfficeJet K Series K80 Personal Printer/Fax/Copier/Scanner Log for OCWA 613 448-1616 Aug 29 2002 3:42pm

Last Transaction

<u>Date Time Type Identification</u> <u>Duration Pages Result</u>

Aug 29 3:40pm Fax Sent 18002686061 1:10 5 OK

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January - March 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Crysler Drinking Water Quality**

#### Ontario Drinking Water Protection Regulations

The Ontario Clean Water Agency, as the contract operator of the Crysler Water Treatment Facility on behalf of the Township of North Stormont, is pleased to present its First Quarter Report in 2002 on drinking water quality. This report has been prepared in response to legislative changes brought about by "Operation Clean Water", an initiative of Ontario's Ministry of the Environment to ensure high quality drinking water for the residents of Ontario. The new regulations put into law what was formerly the Ontario Drinking Water Objectives (ODWO), and sets requirements for public waterworks with regard to sampling and testing, levels of treatment, licensing of staff, and notification of authorities and the public about water quality.

Further information on the Ontario Drinking Water Regulations can be found on the Ministry of the Environment web site at www.ene.gov.on.ca

#### Where to contact us for information



Web site at www.ocwa.com

Client Services Representative: John Kingsbury Operations Manager: Blair Henderson

Phone: (613) 774-3663 Phone: (613) 448-3098

E-mail Address: <u>jkingsbury@ocwa.com</u>
E-mail Address: <u>bhenderson@ocwa.com</u>

You may also contact the Township of North Stormont directly by contacting Rheal Charbonneau,

Clerk-Treasurer, Tel. (613) 984-2821 or e-mail address:

norstor@cnwl.igs.net

Free copies of this report are available at the Township office or their website @ www.cnwl.igs.net/~northstormont

#### INSIDE THIS REPORT

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January - March 2002, Crysler Water Plant - Serving the Village of Crysler

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#### Introduction

We are proud to report that for the period January to March 2002, your water conformed to the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00. The Ontario Clean Water Agency (OCWA) is dedicated to maximizing public health and safety through efficient and reliable operation of your water facility and distribution system.

#### **Plant Description and Treatment Processes**

Facility Name:	Cr	vsler WTF	% Distribu	ition System

Total Design Capacity 1,685 cubic meters/day

Raw Water Source Groundwater

Disinfection Method Sodium Hypochlorite

Municipal Location Municipal Office, 2 Victoria Street, Berwick, Ontario

Service Area Village of Crysler

Service Population 600

#### Operational Description:

Raw Water Source: Two drilled wells, one duty and one standby, located on County Road 13 east of the Village of Crysler.

Low Lift Pumps: Two submersible pumps direct the water to a common header which feeds directly into the feeder line, approximately 5 kilometers in length, to the distribution grid and elevated storage tank with a storage capacity of 1,238 cubic meters.

Chemical Injection: Sodium Hypochlorite for disinfection and Hydrofluosilicic Acid for fluoridation are injected into the common header after the well pump discharge. The residuals are continuously monitored.

Distribution System: There are approximately 600 persons supplied with water from the Crylser Water Treatment System.

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#### **Quality Control & Compliance With Provincial Regulations**

This plant provides multiple barriers against bacteriological contamination. Bacteriological testing is carried out on raw water, treated water and distribution samples on a regular frequency. On-line analysers for chlorine residuals and turbidity ensure daily monitoring of water leaving the plant. Chlorine levels in the distribution system are also checked on a regular basis. More specialized testing occurs monthly and quarterly and includes Volatile Organics, Inorganics, Pesticides and PCB's.

OCWA uses internal compliance auditing techniques by teams from within the organization. OCWA operates the Crysler Water Treatment Facility in accordance with provincial regulations. Here is how we do it:

- Use of Accredited Labs. Analytical tests to monitor your water quality are conducted by a
  laboratory audited by the Canadian Association for Environmental Analytical Laboratories
  (CAEAL) and accredited by the Standards Council of Canada (SCC). Accreditation ensures that
  the laboratory has acceptable laboratory protocols and test methods in place. It also requires the
  laboratory to provide evidence and assurances of the proficiency of the analysts performing the test
  methods.
- Operation by Licensed Operators. Your water treatment plant is operated and maintained by the
  Ontario Clean Water Agency's competent and licensed staff. The mandatory licensing program for
  operators of drinking water facilities is regulated under the Ontario Water Resources Act (OWRA)
  Regulation 435/93. Licensing means that an individual meets the education and experience
  requirements and has successfully passed the certificate exam.
- Sampling and Analytical requirements. OCWA follows a sampling and analysis schedule required by *OWRA* Regulation 459/00, the Ontario Drinking Water Standards. More information on sampling and analysis including results are available in this report and from your municipal office.
- Adherence to Ministry Guidelines and Procedures. To ensure the protection of the health and
  operational excellence, the OCWA adheres to the guidelines and procedures developed by the
  Ministry of the Environment and the Ministry of Health.

#### Did We Exceed the Standards?

We did not exceed any health related Ontario Drinking Water Standards for this reporting period.

January - March 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Definitions & Terms**

 $m^3$  - Cubic Meter,  $1m^3 = 1000$  litres

TCU - True Colour Units

CaCO<sub>3</sub> - Calcium Carbonate

mg - milligram

mg/L - milligrams per litre

ug/L - micrograms per litre

ng/L - nanograms per litre

NTU - Nephelometric Turbidity Units

MAC - Maximum Acceptable Concentration

IMAC - Interim Maximum Acceptable Concentration

**Coliform Bacteria** - a group of commonly occurring rod shaped bacteria. Their presence in a water sample is indicative of inadequate filtration and/or disinfection.

**Fecal Coliform Bacteria** - refers to a subgroup of coliform bacteria present in the digestive system of warm blooded animals and humans.

**Heterotrophic Plate Count** - a method of measuring bacterial content in water samples. Also known as Standard Plate Count.

Organic Parameter - a group of chemical compounds containing carbon.

Inorganic Parameter - a group of chemical compounds not containing carbon.

Raw Water - Surface or ground water available as a source of drinking water that has not received any treatment.

#### **Required Testing**

The Ontario Drinking Water Regulations and Certificates of Approval (C of A) set sampling requirements for the plant. All other sampling conforms to the Drinking Water Protection Regulation schedule for sampling and analysis. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases can pick up substances resulting from the presence of animals or from human activity. Your water is extensively tested for the presence of dozens of compounds. The results of all analytical tests are available at your municipal office. The following table lists all compounds analyzed.

January - March 2002, Crysler Water Plant - Serving the Village of Crysler

**Crysler Water Quality Test Results** 

Microbiological Parameters	MAC or IMAC	# of Samples	# of Detectable Results	Sampling Dates (m/d/y)	Range	Exceedence?	Typical Source of Containment
Total Coliform (counts/100ml)	0	39	0	01/01/02 03/31/02	n/a	no	Indicate possible presence of coliform
Escherichia Coliform (counts/100 ml)	0	39	0	01/01/02 03/31/02	n/a	no	Definite indicator of fecal contamination
Heterotrophic Plate Count (count/100 ml)	500	26	3	01/01/02 03/31/02	2-4	no	Indicator of deteriorating water quality if greater than 500
Parameters related to Microbiological Quality	or IMAC	# of Samples	# of Detectable Results	Sampling Dates (m/d/y)	Range	Exceedence?	Typical Source of Containment
Turbidity (NTU)	1	Continuous	Continuous	01/01/02 03/31/02	0.01-0.20	no	Turbidity is a measure
Free Chlorine - Plant Effluent (mg/l)	-	Continuous	Continuous	01/01/02 03/31/02	0.60-1.58	no	of particles in water Chlorine added for Disinfection
Free Chlorine- Distribution (mg/l min 0.05 & max. 4.0)	-	Grab samples weekly	Weekly	01/01/02 03/31/02	0.60-1.80	no	Objective is 0.20 mg/l in the Distribution System (min. 0.05 mg/l required)
Inorganic Parameters (mg/l)	MAC	# of Samples	# of Detectable Results	Sampling Dates (m/d/y)	Range	Exceedence?	Typical Source of Contaminant
Lead - Distribution	0.01	1	1	01/21/02	<0.001	no	Leached from lead solder or brass plumbing fixtures
Nitrate	10	1	1	01/21/02	0.2	no	Natural component of water
Nitrite	1	1	1	01/21/02	<0.1	no	Water
Arsenic	IMAC= 0.025	1	1	01/21/02	< 0.001	no	
Barium	1	1	1	01/21/02	0.08	no	
Boron	IMAC= 5.0	1	1	01/21/02	<0.05	no	
Cadmium	0.005	11	1	01/21/02	< 0.0001	no	
Chromium (Total)	0.05	1	1	01/21/02	0.002	no	
Copper	1		1	01/21/02	0.037	no	
Iron	0.3		1	01/21/02	< 0.01	no	
Lead	0.01	1	1	01/21/02	< 0.001	no	
Manganese	0.05	1	1	01/21/02	0.01	no	
Mercury	0.001	1	1	01/21/02	< 0.0001	no	
Selenium	0.01	1	1	01/21/02	< 0.001	no	
Uranium	0.1	_1_	1	01/21/02	< 0.001	no	
Sodium	200	1	1	01/21/02	4	no	
Fluoride	2.4	Continuous		01/21/02		110 1	

Volatile Organics (ug/l)	MAC or	# of Samples	# of Detectable Results	Sampling Dates (m/d/y)	Range	Exceedence?	Typical Source of Contaminant
Trihalomethanes - Plant	100	1	l	01/21/02	15	no	
Trihalomethanes - Dist.	100	1	1	01/21/02	5.6	no	
Benzene	5	1	1	01/21/02	<0.5	no	
Carbon Tetrachloride	5	1	1	01/21/02	<0.9	no	

January - March 2002, Crysler Water Plant - Serving the Village of Crysler

Diablement							
Dichloromethane	50	1	1	01/21/02	<4	no	T
1,2 - Dichlorobenzene	200	1	1	01/21/02	<0.4		
1, 4 - Dichlorobenzene	5	1	1	01/21/02	<0.4	no	
1,2 - Dichloroethane	IMAC=	1	1	01/21/02	<0.7	no no	
1,1 - Dichloroethylene	14	1	1	01/21/02	<0.5		
Ethylbenzene	24	1	1	01/21/02	<0.5	no	
Monochlorobenzene	80	1	<del>                                     </del>			no	
Tetrachloroethylene	<del>                                     </del>		<u> </u>	01/21/02	<0.2	no	
	30	I	11	01/21/02	< 0.3	no	
Toluene	24	1	1	01/21/02	< 0.5	no	
Trichloroethlyene	50	1	1	01/21/02	<0.3		
Vinyl chloride	2	1	1	01/21/02		no	
Xylene	300	2	2		<0.5	no	
Bromodichloromethane				01/21/02	<2.0	no	
	n/a	1	1	01/21/02	3.4	no	
Bromoform	n/a	1_	1	01/21/02	< 0.4	no	
Chloroform	n/a	1	1	01/21/02	10		
Dibromochloromethane	n/a	1	1	01/21/02	1.6	no no	

Pesticides & PCB (ug/L)	MAC or IMAC	# of Samples	# of Detectable Results	Sampling Dates	Range	Exceedence?	Typical Source of Contaminant
Alachlor	IMAC=5	1	Results 1	(m/d/y)			
Aldicarb	9	1	1	01/21/02	<0.5	no	
Aldrin+Dieldrin	0.7	1	1	01/21/02	<5.0	no	
Atrazine	IMAC=5	1	1	01/21/02	<0.07	no	
Azinphos-methyl	20	1	1	01/21/02	<1.0	no	
Bendiocarb	40	1	1	01/21/02	<2.0	no	
Bromoxynil	IMAC=5	1	<u></u>	01/21/02	<2.0	no	
Carbaryl	90	1	1	01/21/02	<0.5	no	
Carbofuran	90	1	1	01/21/02 01/21/02	<5.0	no	
Chlordane	7	1	1		<5.0	no	
Chorpyrifus	90	1	1	01/21/02	<0.7	no	
Cyanazine	IMAC=10	1	1	01/21/02	<1.0	no	
Diaznon	20	1	1	01/21/02	<1.0	no	
Dicamba	120	1		01/21/02	<1.0	no	
2,4 Dichlorophenol	900	1	1	01/21/02	<1.0	no	
DDT + Metapolites	30			01/21/02	<0.5	no	
2,4 - Dichlorophenexy	IMAC=10	1	1	01/21/02	<3.0	no	
acid (2,4 -D)	0	1	1	01/21/02	<1.0	no	
Diclofop-methyl	9	1	1	01/21/02	10.0		
Dimethoate	IMAC=20	1	1	01/21/02	<0.9	no	
Dinoseb	10	1	1	01/21/02 01/21/02	<2.5	no	
Diquat	70	1	1		<1.0	no	
Diuron	150	1	1	01/21/02	<7.0	no	
Glyphosate	IMAC=28	<del>- i - l</del>	1	01/21/02	<10.0	no	
71	0	'	1	01/21/02	<10.0	no	
Heprachlor + Heptachlor epoxide	3	1	1	01/21/02	<0.3	no	
Lindane	4	1	1	01/21/02	<0.4	no	
Malathion	190	1	1	01/21/02	<5.0	no	
Methoxychlor	900	1	1	01/21/02	<90.0	no	<del> </del>
Metolachlor	IMAC=50	1	1	01/21/02	<0.5	no	
<u>Metribuzin</u>	80	1	1	01/21/02	<5.0	no	· · · · · · · · · · · · · · · · · · ·
Paraquat	IMAC=10	1	1	01/21/02	<1.0	no	
Parathion	50	1	1	01/21/02	<1.0	no	
Pentachlorophenol	60	1	11	01/21/02	<0.5	no	
Phorate	IMAC=2	1	1	01/21/02	<0.5	no	
Picloram	IMAC=19 0	1	1	01/21/02	<5.0	no	
Polychlorinated Biphenyls	IMAC=3	1	1	01/21/02	<0.3	no	

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Prometryne	IMAC=1	1	1	01/21/02	<0.25	no	
Simazine	IMAC=10	1	1	01/21/02	<1.0	no	
Temephos	IMAC=28	I	1	01/21/02	<10	no	
Terbufos	IMAC=1	1	1	01/21/02	<0.7	no	
2,3,4,6 Tetrachlorophenol	100	1	1	01/21/02	<0.5	no	
Triallate	230	1	1	01/21/02	<1.0	no	
2,4,6-Trichlorophenol	5	1	1	01/21/02	<0.5	no	
2,4,5 - trichlorophenoxy acedic acid	IMAC=28 0	1	1	01/21/02	<1.0	no	
Trifluralin	45	1	1	01/21/02	<1.0	no	

	AO or OG		# of Detectable Results	Sampling Dates (m/d/y)	Range	Exceedenco?	Typical Source of Contaminant
Calcium		1	11	01/21/02	57	no	
Magnesium		1	1	01/21/02	8	no	
Potassium		1	1	01/21/02	1	no	

#### **Questions & Answers**

- Q. What is an Accredited Laboratory?
- A. Accredited labs must have undergone an on-site assessment and performance review of their methods by the Canadian Association of Environmental and Analytical Laboratories. The Standards Council of Canada grants accreditation to the lab based on the recommendation of the CAEAL. The accreditation requirements are repeated every two years.
- Q. What had to be done to meet the new regulations?
- A. The Crysler Water Treatment Plant was following the Ontario Drinking Water Objectives (ODWO) before they became law, so little change was required to meet the new regulations. Our chlorine residual in the water leaving the plant was raised to slightly to achieve the (0.20 mg/L free chlorine) required level in the distribution system, and some changes were required in the way results are reported. This report to the public is also the result of the new regulations.
- Q. What parameters did you test for?
- A. Microbiological parameters, volatile organics, inorganics and pesticides and PCB's have been tested. The results are included in this report.
- Q. Sometimes my water looks rusty or coloured. Why is that, and what should I do about it?
- A. This is quite often caused when the tanks in older water heaters start to decay. If the colour is seen only in your hot water, this may be the problem. If the colour is also noticed in your cold water it could be coming from the water main. Various maintenance procedures in the distribution system such as fire hydrant and valve maintenance, or main break repairs require flushing of the water mains. Flushing can cause small particles of sediment to break off

January - March 2002, Crysler Water Plant - Serving the Village of Crysler

adding colour to the water. Please note that there is no health risk associated with this problem. This is usually only temporary, and opening your taps for a while to flush out your service line (the pipe from the water main to your house) should take care of the problem. Let the water run until the colour disappears.

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

ndustrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

**Certificate of Analysis** 

Report:

230000135

Project:

Crysler WTP

Date Sampled:

January 6, 2003

Date Received: Date Printed:

January 7, 2003 January 09, 2003

Matrix:

Parameter	Unit	MDL	Sample Identification	on		
			Well #1 Raw	Well #1 Treated	Dist. Catholic School	Dist. Home Hardware
Total Chlorine	mg/L	0.05		1.27	1.11	1.03
Free Chlorine	mg/L	0.05		1.17	1.02	0.92
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		8	absent	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

ndustrial Dr.

Chesterville, ON

K0C 1H0

Attention: Dave Markell

**Certificate of Analysis** 

Report:

230000448

Project:

Crysler WTP

Date Sampled:

January 13, 2003

Date Received:

January 14, 2003

Date Printed:

January 16, 2003

Matrix:

Parameter	Unit	MDL	Sample Identificatio	n		W
			Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Crysler Satellite
Total Chlorine	mg/L	0.05		1.26	1.14	1.00
Free Chlorine	mg/L	0.05		1.18	1.04	0.90
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	26	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

**Certificate of Analysis** 

Client:

tario Clean Water Agency

hdustrial Dr. Chesterville, ON

K0C 1H0

Attention: Dave Markell

Report:

230000766

Project:

Crysler WTP

Date Sampled:

January 20, 2003

Date Received:

January 20, 2003 January 21, 2003

Date Printed:

January 23, 2003

Matrix:

, according to	- Turkon						
	Parameter	Background	E. coli	Free CI2	НРС	тс	Total Cl2
	Unit	/100mL	/100mL	mg/L	/mL	/100mL	mg/L
	MDL	1	1	0.05	2	1	0.05
Sample ID							
Well #1 Raw		12	absent			absent	
Well #1 Treated			absent	1.11	absent	absent	1.18
Dist. S.P.S			absent	0.98	2	absent	1.11
Dist. Post Office			absent	0.96		absent	1.06

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

ATT: Mr. Blair Henderson

**Report Number:** 

2200717

Date:

2002-01-29

Date Submitted:

2002-01-22

Project:

Crysler Wells - Quarterly

P.O. Number:

Matrix: Supply Water

				Matrix:		Supply Water	
		LAB ID:	167005	1			
	Samp	le Date:	2002-01-21				
	Sar	nple ID:	CRW-02				
		•	Treated				
				1			
PARAMETER	UNITS	MDL	TREATEDWATER				
As B Ba	mg/L	0.001	<0.001 L				
B	mg/L	0.05	<0.05 ✓				
Ba	mg/L	0.01	0.08 V		ĺ		1
Ca	mg/L	1	57 🗸				ļ
Cd	mg/L	0.0001	<0.0001			}	
Cr	mg/L	0.001	0.002		}		
Cu	mg/L	0.001	0.037			ľ	
F	mg/L	0.10	0.67		1		
Fe	mg/L	0.01	<0.01		1	1	
	mg/L	0.001	<0.001			1	
	mg/L	1	8 1/				
Mn	mg/L	0.01	0.01				
Hg	mg/L	0.0001	<0.0001 🗸			ļ	
N-NO2	mg/L	0.10	<0.10		1		
N-NO3	mg/L	0.10	0.20 ン/		J		
K	mg/L	1 1	1 V				
Se	mg/L	0.001	<0.001 🗸		ļ		
Na	mg/L	2	4 🗸			1	
ប់	mg/L	0.001	<0.001 🗸				
1							
				'			
1	1						1

MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

Report Number:

2200717

Date:

2002-01-25

ATT: Mr. Blair Henderson

2002-01-22

Project:

Crysler Wells - Quarterly

Chemicals

P.O. Number:

Matrix: Supply Water

CAB ID: 167005   2002-01-21   2002-01-21   CRW-02   Treated	
PARAMETER   UNITS   MDL	
Treated	
PARAMETER         UNITS         MDL           BTEX / 624 / PURGEABLE HYDROCARBONS         ug/L         0.5         <0.5	
BTEX / 624 / PURGEABLE HYDROCARBONS           Benzene         ug/L         0.5         <0.5	
BTEX / 624 / PURGEABLE HYDROCARBONS           Benzene         ug/L         0.5         <0.5           Toluene         ug/L         0.5         <0.5           Ethylbenzene         ug/L         0.5         <0.5           m/p-xylene         ug/L         1.0         <1.0           o-xylene         ug/L         0.5         <0.5           Bromodichloromethane         ug/L         0.3         3.4           Bromoform         ug/L         0.4         <0.4           bon Tetrachloride         ug/L         0.9         <0.9	
Benzene	
Toluene         ug/L         0.5         <0.5	
Ethylbenzene	
m/p-xylene       ug/L       1.0       <1.0	
o-xylene         ug/L         0.5         <0.5	
Bromodichloromethane ug/L 0.3 3.4 U Short Tetrachloride ug/L 0.9 <0.9	1
Bromoform ug/L 0.4 <0.4 on the contract of the	
bon Tetrachloride ug/L 0.9 <0.9 ✓	
hochlorobenzene ug/L 0.2 <0.2 V	
Chloroform ug/L 0.5 10.0	
Dibromochloromethane ug/L 0.3 1.6 U	Į.
1,2-dichlorobenzene ug/L 0.4 <0.4	
1,4-dichlorobenzene ug/L 0.4 <0.4	
1,2-dichloroethane ug/L 0.7 <0.7 \	
1,1-dichloroethylene ug/L 0.5 <0.5 ✓	
Dichloromethane ug/L 4.0 <4.0	
Tetrachloroethylene ug/L 0.3 <0.3 ✓	
Trichloroethylene ug/L 0.3 <0.3	
Vinyl Chloride ug/L 0.5 <0.5	1
TOTALS	
Trihalomethanes (total) ug/L 2.0 15.0 🗸	
Xylene, total ug/L 2.0 <2.0	
BTEX / 624 Surrogate Recoveries	ļ
Toluene-d8 % 109	
1,2-dichloroethane-d4 % 115	
4-bromofluorobenzene % 115	İ

MDL = Method Detection Limit

Comment:

INC = Incomplete

APPROVAL:

#### **REPORT OF ANALYSIS**

**Client: Crysler Well Supply** 

ATT: Mr. Blair Henderson

Report Number:

2200717

Date:

2002-03-12

**Date Submitted:** 

2002-01-22

Project:

Crysler Wells - Quarterly

				Sample Matri	x:	Supply Water	
		LAB ID:	167005				
		ple Date:	2002-01-21				
	Sa	ample ID:	CRW-02		1		
			Treated				
PARAMETER	UNITS	MDL					
PESTICIDES & PCB's							
Alachlor	mg/L	0.0005	<0.0005	}			İ
Aldicarb	mg/L	0.0050	<0.0050	}		]	
Aldrin + Dieldrin	mg/L	0.00007	< 0.00007	1		Į.	l
Atrazine	mg/L	0.001	<0.001				
Azinphos-methyl	mg/L	0.002	< 0.002				İ
Bendiocarb	mg/L	0.0020	< 0.0020	1			
Bromoxynil	mg/L	0.0005	<0.0005			}	}
Carbaryl	mg/L	0.0050	<0.0050	1			
rbofuran	mg/L	0.0050	<0.0050	}		i	
ordane (Total)	mg/L	0.0007	<0.0007				1
Chloropyrifos	mg/L	0.0010	<0.0010			1	
Cyanazine	mg/L	0.0010	<0.0010	1			l
Diazinon	mg/L	0.0010	<0.0010			i	
Dicamba	mg/L	0.0010	<0.0010	Į į		ļ	
Diquat	mg/L	0.0070	<0.0070			i	
2,4-Dichlorophenol	mg/L	0.0005	<0.0005				
DDT	mg/L	0.0030	<0.0030				
2,4-D	mg/L	0.0010	<0.0010	}		}	•
Diclofop-methyl	mg/L	0.0009	<0.0009				
Dimethoate	mg/L	0.0025	<0.0025	]			]
Dinoseb	mg/L	0.0010	<0.0010	]		(	ļ
Diuron	mg/L	0.010	<0.010	]			
Glyphosate	mg/L	0.010	<0.010			l	1
Heptachlor + Hept. Epoxide	mg/L	0.0003	< 0.0003				1
Lindane (Total)	mg/L	0.0004	<0.0004				
Malathion	mg/L	0.0050	<0.0050				
Methoxychlor	mg/L	0.0900	<0.0900				

ND = Not Detected (< MDL)

MDL = Method Detection Limit

Comment:

Metolachlor

APPROVAL:

< 0.0005

0.0005

mg/L

#### **REPORT OF ANALYSIS**

**Client: Crysler Well Supply** 

Report Number:

2200717

Date:

2002-03-12

**Date Submitted:** 

2002-01-22

ATT: Mr. Blair Henderson

Project:

Crysler Wells - Quarterly

				Sample Matri	ix:	Supply Water	•
		LAB ID:	167005				1
	Sam	ple Date:	2002-01-21				
	S	ample ID:	CRW-02				
		•	Treated				
PARAMETER	UNITS	MDL					<del>                                     </del>
Metribuzin	mg/L	0.005	<0.005				<del>                                     </del>
Paraquat	mg/L	0.0010	<0.0010				
Parathion	mg/L	0.0010	< 0.0010	}			
Pentachlorophenol	mg/L	0.0005	< 0.0005				
Phorate	mg/L	0.0005	< 0.0005				
Picloram	mg/L	0.0050	< 0.0050		İ		
PCB's (total)	mg/L	0.0003	< 0.0003	ļ	,		
Prometryne	mg/L	0.00025	<0.00025				
Simazine	mg/L	0.0010	< 0.0010				
nephos	mg/L	0.010	<0.010				
rerbufos	mg/L	0.0007	<0.0007				]
2,3,4,6-Tetrachlorophenol	mg/L	0.0005	<0.0005				
Triallate	mg/L	0.0010	<0.0010				
2,4,6-Trichlorophenol	mg/L	0.0005	<0.0005	i		ļ	[
Trifluralin	mg/L	0.0010	<0.0010				
2,4,5-T	mg/L	0.0010	<0.0010				
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ND = Not Detected (< MDL)

MDL = Method Detection Limit

Comment:

APPROVAL:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

ATT: Mr. Blair Henderson

Report Number:

2201010

Date:

2002-02-06

Date Submitted:

2002-01-29

Project:

Crysler Wells Quarterly

P.O. Number:

Matrix: Supply Water

				Maci IX.		Supply water	
		LAB ID:	167760				
i	Samp	le Date:	2002-01-28				1
i e	Sar	nple ID:	CRW-01 Raw		7		
1			}	}		{	
				]		1	}
PARAMETER	UNITS	MDL	RAW WATER			1	1
Ca	mg/L	1	66		T		T
}CI	mg/L	1	19	1		<b>\</b>	
Conductivity	uS/cm	5	435	}			1
Colour	TCU	2	<2		}		
DOC	mg/L	0.5	<0.5	}			1
Fe	mg/L	0.01	<0.01	ļ			1
Hardness as CaCO3	mg/L	1	210	}		}	1
Mg	mg/L	1	11	}	}	ĺ	}
Mn	mg/L	0.01	<0.01		1	}	į
N-NH3 N 2	mg/L	0.02	<0.02		1	]	1
N 2	mg/L	0.10	<0.10		}	1	
N-NO3	mg/L	0.10	0.22			1	}
рН		}	7.76		{	1	}
Na	mg/L	2	5		1	}	
Total Kjeldahl Nitrogen	mg/L	0.05	0.10		}		
		1	51.10		1	}	1
					}	1	
	1	}				}	}
	1				1	Ì	}
1						}	
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	}					1	1
	<b>(</b>				1	1	1

MDL = Method Detection Limit

INC = Incomplete

Comment:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

Report Number:

2200720

Date:

Date Submitted:

2002-01-25 2002-01-22

ATT: Mr. Blair Henderson

Project:

Crysler System

P.O. Number:

Matrix: Supply Water

				matrix:		Supply Water	
		LAB ID:					
	Sam	ple Date:	2002-01-21				
i l			CRW-System				
			SPS#1			ļ	1
PARAMETER	UNITS	MDL					
BTEX / 624 / PURGEABLE HYD	ROCARBO	ONS					
Bromodichloromethane	ug/L	0.3	1.5				
Bromoform	ug/L	0.4	<0.4				
Chloroform	ug/L	0.5	3.5				
Dibromochloromethane	ug/L	0.3	0.6				
TOTALS				ŀ			
Trihalomethanes (total)	ug/L	2.0	5.6				
BTEX / 624 Surrogate Recoveri	es						
Teluene-d8	%	ļ	104				
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	[						
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MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

ATT: Mr. Blair Henderson

**Report Number:** 

2200720

Date:

2002-01-29

**Date Submitted:** 

2002-01-22

Project:

Crysler System

P.O. Number:

			_	Matrix:		Supply Water		
		LAB ID:	167008		1			
	Samp	le Date:	2002-01-21					
	San	nple ID:	CRW-System					
	·							
			SPS#1	Ì				
PARAMETER	UNITS	MDL	TREATEDWATER					
Pb	mg/L	0.001	<0.001 ✓				<del></del>	
	)g/_	0.00	}	}				
	ļ	}						
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MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

#### **Environmental Laboratory**

Client:

tario Clean Water Agency

Andustrial Dr. Chesterville, ON K0C 1H0

Attention:

Dave Markell

#### **Certificate of Analysis**

Report:

220000058

Project:

Crysler WTP

Date Sampled:

January 2, 2002

Date Received: Date Printed:

January 3, 2002 January 07, 2002

Matrix:

Parameter Un	t MDL		Sample Identification					
			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. SPS		
Total Chlorine	mg/L	0.05		1.30	1.40	0.80		
Free Chlorine	mg/L	0.05		1.20	1.40	0.60		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2	absent	absent	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Unit

MDL

#### **Environmental Laboratory**

Client:

tario Clean Water Agency

ondustrial Dr. Chesterville, ON

K0C 1H0

**Parameter** 

Attention: Dave Markell

#### **Certificate of Analysis**

Report:

220000171

Project:

Crysler WTP

Date Sampled:

January 7, 2002

Date Received: Date Printed: January 8, 2002 January 10, 2002

Matrix:

Drinking Water

			Well #1 Raw	Well #1 Treated	Dist. Statellite	Dist. Home Hardware		
Total Chlorine	mg/L	0.05		1.40	1.60	1.60		
Free Chlorine	mg/L	0.05		1.40	1.60	1.50		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2	8	absent	2			
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Sample Identification

# Caduceon Enterprises Inc. Environmental Laboratory

**Certificate of Analysis** 

Client:

tario Clean Water Agency

Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

Report:

220000387

Project:

Crysler WTP

Date Sampled:

DI Y SICI VV I P

Date Received:

January 14, 2002 January 15, 2002

Date Printed:

January 17, 2002

Matrix:

	Parameter Ur	MDL MDL		Sample Identification	tion		
				Well #1 Raw	Well #1 Treated	Dist. Canada Post	Dist. SPS
	Total Chlorine	mg/L	0.05		1.50	1.70	1.10
_	Free Chlorine	mg/L	0.05		1.30	1.70	1.10
	E. coli	/100mL	1	absent	absent	absent	absent
_	Heterotrophic Plate Count	: /mL	2	20	absent	absent	
	Total Coliforms	/100mL	1	absent	absent	absent	absent

# Caduceon Enterprises Inc. Environmental Laboratory

**Certificate of Analysis** 

Client:

tario Clean Water Agency

ondustrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

Report:

220000612

Project:

Crysler WTP

Date Sampled:

January 21, 2002

Date Received: Date Printed:

January 22, 2002 January 25, 2002

Matrix:

Parameter Unit	MDL	MDL Sample Identification					
			Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Nortre Dame	
Total Chlorine	mg/L	0.05		2.00	2.00	1.80	
Free Chlorine	mg/L	0.05		2.00	1.80	1.70	
E. coli	/100mL	1	absent	absent	absent	absent	
Heterotrophic Plate Count	/mL	2	4	2	absent		
Total Coliforms	/100mL	1	absent	absent	absent	absent	

### **Environmental Laboratory**

Client:

tario Clean Water Agency

Industrial Dr. Chesterville, ON

K0C 1H0
Attention:

**Parameter** 

Dave Markell

Unit

MDL

### **Certificate of Analysis**

Report:

220000785

Project:

.Crysler WTP

Date Sampled:

January 28, 2002

Date Received: Date Printed:

January 29, 2002 January 31, 2002

Matrix:

Drinking Water

			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. Community Centre
Total Chlorine	mg/L	0.05		1.70	1.50	1.80
Free Chlorine	mg/L	0.05		1.70	1.50	1.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	absent	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

Unit

MDL

#### **Environmental Laboratory**

Client:

tario Clean Water Agency

Chesterville, ON

K0C 1H0
Attention:

**Parameter** 

Dave Markell

**Certificate of Analysis** 

Report:

220000964

Project:

Crysler WTP

Date Sampled:

February 4, 2002

Date Received:

February 5, 2002

Date Printed:

February 07, 2002

Matrix:

Drinking Water

			<u> </u>			
			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. SPS
Total Chlorine	mg/L	0.05		2.00	2.00	1.80
Free Chlorine	mg/L	0.05		2.00	1.80	1.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	absent	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

Tel: (613)526-0123, Fax: (613)526-1244

Michael Ziebell, General Manager

#### **Environmental Laboratory**

Client:

tario Clean Water Agency

o Industrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

#### **Certificate of Analysis**

Report:

220001203

Project:

Crysler WTP

Date Sampled:

February 11, 2002

Date Received:

February 12, 2002

**Date Printed:** 

February 14, 2002

Matrix:

Parameter Uni	t MDL	<del></del>	Sample Identifica	tion		
			Well #1 Raw	Well #1 Treated	Dist. Canada Post	Dist. Satellite
Total Chlorine	mg/L	0.05		1.00	1.60	1.50
Free Chlorine	mg/L	0.05		1.00	1.50	1.50
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	absent	4	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

ndustrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

# **Certificate of Analysis**

Report:

220001419

Project:

Crysler WTP

Date Sampled:

February 18, 2002

Date Received:

February 19, 2002

Date Printed:

February 21, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification				
			Well #1 Raw	Well #1 Treated	Dist. Home Hardware	Dist. SPS	
Total Chlorine	mg/L	0.05		1.40	1.50	1.50	
Free Chlorine	mg/L	0.05		1.10	1.40	1.50	
E. coli	/100mL	1	absent	absent	absent	absent	
Heterotrophic Plate Count	/mL	2	absent	absent	absent		
Total Coliforms	/100mL	1	absent	absent	absent	absent	

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

ndustrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: **Dave Markell**  **Certificate of Analysis** 

Report:

220001624

Crysler WTP

Project:

Date Sampled: Date Received: February 25, 2002

Date Printed:

February 26, 2002 February 28, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification					
			Well #1 Raw	Weli #1 Treated	Dist. 8 Bridge St.	Dist. Sunny's Gas Bar		
Total Chlorine	mg/L	0.05		1.50	1.10	1.30		
Free Chlorine	mg/L	0.05		1.50	1.10	1.30		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2	8	absent	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

o industrial Dr. Chesterville, ON

K0C 1H0

Attention: Dave

**Dave Markell** 

**Certificate of Analysis** 

Report:

220001902

Project:

Project.

Date Sampled:

Crysler WTP March 4, 2002 March 5, 2002

Date Received:
Date Printed:

March 5, 2002 March 07, 2002

Matrix:

Parameter (	Init MDL		Sample Identification			
1						
			Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Water Tower
Total Chlorine	mg/L	0.05		1.30	1.40	1.50
Free Chlorine	mg/L	0.05		1.30	1.30	1.50
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Cour	t/mL	2	6	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises inc.

Client:

ntario Clean Water Agency

industrial Dr. Chesterville, ON

**K0C 1H0** 

**Parameter** 

Attention: **Dave Markell**  **Certificate of Analysis** 

Report:

220002206

Project:

Crysler WTP

Date Sampled:

Date Received:

March 11, 2002 March 12, 2002

Date Printed:

March 14, 2002

Matrix:

**Drinking Water** 

						<del></del>
			Well #1 Raw	Well #1 Treated	Dist. Home Hardware	Dist. Satellite
Total Chlorine	mg/L	0.05		1.10	1.60	1.60
Free Chlorine	mg/L	0.05		1.10	1.50	1.60
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	6	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

Industrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

# **Certificate of Analysis**

Report:

220002449

Project:

Crysler WTP

Date Sampled:

March 18, 2002

Date Received: Date Printed: March 19, 2002 March 21, 2002

Matrix:

Drinking Water

Parameter	Unit MDL		Sample Identifica	<b>tion</b>		
			Well #1 Raw	Well #1 Treated	Dist. Hardware Store	Dist. SPS #1
Total Chlorine	mg/L	0.05		1.20	1.00	1.00
Free Chlorine	mg/L	0.05		1.20	1.00	1.00
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Cour	nt /mL	2	2	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises Inc.

**Certificate of Analysis** 

Client:

ntario Clean Water Agency

ndustrial Dr. Chesterville, ON

K0C 1H0 Attention:

**Parameter** 

Dave Markell

Report:

220002714

Project:

Crysler WTP

Date Sampled:

March 25, 2002

Date Received:
Date Printed:

March 26, 2002 April 01, 2002

Matrix:

Drinking Water

_	<del></del>						
				Well #1 Raw	Well #1 Treated	Dist. Canada Post	Dist. Water Tower
	Total Chlorine	mg/L	0.05		1.20	1.50	1.80
ì	Free Chlorine	mg/L	0.05		1.20	1.50	1.80
	E. coli	/100mL	1	absent	absent	absent	absent
l	Heterotrophic Plate Count	/mL	2	absent	absent	absent	
	Total Coliforms	/100mL	1	absent	absent	absent	absent

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Crysler Drinking Water Quality**

#### Ontario Drinking Water Protection Regulations

The Ontario Clean Water Agency, as the contract operator of the Crysler Water Treatment Facility on behalf of the Township of North Stormont, is pleased to present its Second Quarter Report in 2002 on drinking water quality. This report has been prepared in response to legislative changes brought about by "Operation Clean Water", an initiative of Ontario's Ministry of the Environment to ensure high quality drinking water for the residents of Ontario. The new regulations put into law what was formerly the Ontario Drinking Water Objectives (ODWO), and sets requirements for public waterworks with regard to sampling and testing, levels of treatment, licensing of staff, and notification of authorities and the public about water quality.

Further information on the Ontario Drinking Water Regulations can be found on the Ministry of the Environment web site at <a href="https://www.ene.gov.on.ca">www.ene.gov.on.ca</a>

#### Where to contact us for information



Web site at www.ocwa.com

Client Services Representative: John Kingsbury Operations Manager: Blair Henderson

Phone: (613) 774-3663 Phone: (613) 448-3098

E-mail Address: jkingsbury@ocwa.com

E-mail Address: bhenderson@ocwa.com

You may also contact the Township of North Stormont directly by contacting Rheal Charbonneau,

Clerk-Treasurer, Tel. (613) 984-2821 or e-mail address:

admin@northstormont.on.ca

Free copies of this report are available at the Township office or their website @ www.townshipofnorthstormont.on.ca

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April - June 2002, Crysler Water Plant - Serving the Village of Crysler

#### Introduction

We are proud to report that for the period April to June 2002, your water conformed to the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00. The Ontario Clean Water Agency (OCWA) is dedicated to maximizing public health and safety through efficient and reliable operation of your water facility and distribution system.

#### **Plant Description and Treatment Processes**

Facility Name: Crysler WTP & Distribution System

Total Design Capacity 1,685 cubic meters/day

Raw Water Source Groundwater

Disinfection Method Sodium Hypochlorite

Municipal Location Municipal Office, 2 Victoria Street, Berwick, Ontario

Service Area Village of Crysler

Service Population 600

#### Operational Description:

Raw Water Source: Two drilled wells, one duty and one standby, located on County Road 13 east of the Village of Crysler.

<u>Low Lift Pumps</u>: Two submersible pumps direct the water to a common header which feeds directly into the feeder line, approximately 5 kilometers in length, to the distribution grid and elevated storage tank with a storage capacity of 1,238 cubic meters.

<u>Chemical Injection:</u> Sodium Hypochlorite for disinfection and Hydrofluosilicic Acid for fluoridation are injected into the common header after the well pump discharge. The residuals are continuously monitored.

Distribution System: There are approximately 600 persons supplied with water from the Crylser Water Freatment System.

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Quality Control & Compliance With Provincial Regulations**

This plant provides multiple barriers against bacteriological contamination. Bacteriological testing is carried out on raw water, treated water and distribution samples on a regular frequency. On-line analysers for chlorine residuals and turbidity ensure daily monitoring of water leaving the plant. Chlorine levels in the distribution system are also checked on a regular basis. More specialized testing occurs monthly and quarterly and includes Volatile Organics, Inorganics, Pesticides and PCB's.

OCWA uses internal compliance auditing techniques by teams from within the organization. OCWA operates the Crysler Water Treatment Facility in accordance with provincial regulations. Here is how we do it:

- Use of Accredited Labs. Analytical tests to monitor your water quality are conducted by a
  laboratory audited by the Canadian Association for Environmental Analytical Laboratories
  (CAEAL) and accredited by the Standards Council of Canada (SCC). Accreditation ensures that
  the laboratory has acceptable laboratory protocols and test methods in place. It also requires the
  laboratory to provide evidence and assurances of the proficiency of the analysts performing the test
  methods.
- Operation by Licensed Operators. Your water treatment plant is operated and maintained by the
  Ontario Clean Water Agency's competent and licensed staff. The mandatory licensing program for
  operators of drinking water facilities is regulated under the Ontario Water Resources Act (OWRA)
  Regulation 435/93. Licensing means that an individual meets the education and experience
  requirements and has successfully passed the certificate exam.
- Sampling and Analytical requirements. OCWA follows a sampling and analysis schedule required by *OWRA* Regulation 459/00, the Ontario Drinking Water Standards. More information on sampling and analysis including results are available in this report and from your municipal office.
- Adherence to Ministry Guidelines and Procedures. To ensure the protection of the health and
  operational excellence, the OCWA adheres to the guidelines and procedures developed by the
  Ministry of the Environment and the Ministry of Health.

#### Did We Exceed the Standards?

We did not exceed any health related Ontario Drinking Water Standards for this reporting period.

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Definitions & Terms**

 $m^3$  - Cubic Meter,  $1m^3 = 1000$  litres

TCU - True Colour Units

CaCO<sub>3</sub> - Calcium Carbonate

mg - milligram

mg/L - milligrams per litre

ug/L - micrograms per litre

ng/L - nanograms per litre

NTU - Nephelometric Turbidity Units

MAC - Maximum Acceptable Concentration

IMAC - Interim Maximum Acceptable Concentration

**Coliform Bacteria** - a group of commonly occurring rod shaped bacteria. Their presence in a water sample is indicative of inadequate filtration and/or disinfection.

**Fecal Coliform Bacteria** - refers to a subgroup of coliform bacteria present in the digestive system of warm blooded animals and humans.

**Heterotrophic Plate Count** - a method of measuring bacterial content in water samples. Also known as Standard Plate Count.

Organic Parameter - a group of chemical compounds containing carbon.

Inorganic Parameter - a group of chemical compounds not containing carbon.

Raw Water - Surface or ground water available as a source of drinking water that has not received any treatment.

#### **Required Testing**

The Ontario Drinking Water Regulations and Certificates of Approval (C of A) set sampling requirements for the plant. All other sampling conforms to the Drinking Water Protection Regulation schedule for sampling and analysis. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases can pick up substances resulting from the presence of animals or from human activity. Your water is extensively tested for the presence of dozens of compounds. The results of all analytical tests are available at your municipal office. The following table lists all compounds analyzed.

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

# **Crysler Water Quality Test Results**

Microbiological	MAC	# of	# of	Sampling	Range	Exceedence?	Typical Source of
Parameters	or	Samples	Detectable	Dates			Containment
	IMAC		Results	(m/d/y)			
Total Coliform	0	39	0	04/01/02	n/a	no	Indicate possible
(counts/100ml)				06/30/02	<del></del>		presence of coliform
Escherichia Coliform	0	39	0	04/01/02	n/a	no	Definite indicator of
(counts/100 ml)				06/20/02		}	fecal contamination
Material Plate Count	500	26	6	06/30/02 04/01/02	2-4		To 41-14-16
Heterotrophic Plate Count (count/100 ml)	300	26	ь	06/30/02	2-4	no	Indicator of deteriorating water
(count 100 mi)				00/30/02		1	quality if greater than
							500
Parameters related to	MAC	# of	# of	Sampling	Range	Exceedence?	Typical Source of
Microbiological	or ]	Samples	Detectable	Dates			Containment
Quality	IMAC		Results	(m/d/y)			
Turbidity (NTU)	1	Continuous	Continuous	04/01/02	0.04-0.55	no	Turbidity is a measure
				06/30/02			of particles in water
Free Chlorine -	- 1	Continuous	Continuous	04/01/02	0.77-1.89	no	Chlorine added for
Plant Effluent (mg/l)				06/30/02		<b>-</b>	<u>Disinfection</u>
Free Chlorine-	-	Grab	Weekly	04/01/02	0.7-1.4	no	Objective is 0.20 mg/l
Distribution (mg/l min		samples	İ	06/30/02			in the Distribution
0.05 & max. 4.0)	1	weekly	1				System (min. 0.05
		4				Exceedence?	mg/l required)
Inorganic Parameters	MAC	# of	# of Detectable	Sampling	Range	Excedence;	Typical Source of Contaminant
(mg/l) **	or IMAC	Samples	Results	Dates (m/d/y)			Contaminant
Lead - Distribution	0.01	1	i l	01/21/02	< 0.001	no	Leached from lead
Dodd Distribution	""		·	01/21/12			solder or brass
							plumbing fixtures
Nitrate	10	1	1	04/11/02	0.65	no	Natural component of
							water
Nitrite	1	i	11	04/11/02	<0.1	no	
Arsenic	IMAC= 0.025	1	1	01/21/02	< 0.001	no	
Barium	1	1	1	01/21/02	0.08	no	
Boron	IMAC=	1	1	01/21/02	< 0.05	no	
Cadmium	0.005	1	1	01/21/02	<0.0001	no	
Chromium (Total)	0.05	1	1	01/21/02	0.002	no	
Copper	1	1	1	01/21/02	0.037	no	
Iron	0.3	1	1	01/21/02	< 0.01	no	
Lead	0.01	1	1	01/21/02	< 0.001	no	,
Manganese	0.05	1	1	01/21/02	0.01	no	
Mercury	0.001	1	1	01/21/02	< 0.0001	no	
Selenium	0.01	1	1	01/21/02	<0.001	no	
Uranium	0.01	1	<del> ;  </del>	01/21/02	< 0.001	no	
Sodium	200	i	1	01/21/02	4	no	
Fluoride	2.4	Continuous	Continuous	Continuous	0.5-0.8	no	
Volatile Organics (ug/l)	MACor	# of	# of	Sampling	Range	Exceedence?	Typical Source of
7950		Samples	Detectable	Dates			Contaminant
	IMAC		Results	(m/d/y)			
Trihalomethanes - Plant	100	1	1	04/11/02	8.4	no	
Trihalomethanes - Dist.	100	1	11	04/11/02	8.4	no	
Benzene	5	1 1	1	04/11/02	<0.5	no	
Carbon Tetrachloride	5	1	1	04/11/02	<0.9	no	
Dichloromethane	50	11	11	04/11/02	<4	no	

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

V——————————							
1,2 - Dichlorobenzene	200	1	1	04/11/02	<0.4	no	
1, 4 - Dichlorobenzene	5	1	1	04/11/02	<0.4	no	<del> </del>
1,2 - Dichloroethane	IMAC=	1	1	04/11/02	<0.7	no	
1,1 - Dichloroethylene	14	1	<del></del>	04/11/02	-0.5		<del> </del>
Ethylbenzene	24	<del>-                                    </del>	1	04/11/02	<0.5	no	<del> </del>
Monochlorobenzene	80	1	1	04/11/02	<0.5	no	<u> </u>
Volatile Organics (ug/l)	MAC or	#of	# of		<0.2	no Exceedence?	
Column Confirmes (right)	MACO	Samples	# 01 Detectable	Sampling Dates	Range	EACOBUENCE!	Typical Source of
	IMAC	Samples	Results	(m/d/y)			Contaminant
Tetrachloroethylene	30	1	1	04/11/02	<0.3		
Toluene	24	1	1	04/11/02	<0.5	no no	
Trichloroethlyene	50	1	1	04/11/02	<0.3		
Vinyl chloride	2	i	1	04/11/02	<0.5	no	
Xylene	300	2	2	04/11/02	<2.0	no no	<del> </del>
Bromodichloromethane	n/a	1	<del>-</del>	04/11/02	2.2		
Bromoform	n/a	1	<del></del>	04/11/02	<0.4	no no	
Chloroform	n/a	1	1	04/11/02	5.5	no	<del></del>
Dibromochloromethane	n/a	1	1	04/11/02	0.7	no	<del></del>
Pesticides & PCB (ug/L)	MAC or	# of	# of	Sampling	Range	Exceedi	Typical Source of
(- <del></del> )	IMAC	Sample			Kange		Contaminant
			Results	(m/d/y)			Contaminant
Alachior	IMAC=5	1	1	04/11/02	< 0.5	no	
Aldicarb	9	<del>                                     </del>	1 1	04/11/02			
Aldrin+Dieldrin	0.7	1	1	04/11/02			
Atrazine	IMAC=5	1	1	04/11/02			
Azinphos-methyl	20	1	1 1	04/11/02			
Bendiocarb	40	1	1	04/11/02			
Bromoxynil	IMAC=5	1	1	04/11/02			
Carbaryl	90	1	i	04/11/02			
Carbofuran	90	1	1	04/11/02	<5.0		
Chlordane	7	1	1	04/11/02			
Chorpyrifus	90	1	1	04/11/02	<1.0		
Cyanazine	IMAC=10	1	1	04/11/02			
Diaznon	20	1	1	04/11/02			
Dicamba	120	1	1	04/11/02	<1.0		
2,4 Dichlorophenol	900	1	1	04/11/02			
DDT + Metapolites	30	1	1	04/11/02	<3.0		
2,4 - Dichlorophenexy	IMAC=10	1	1	04/11/02	<1.0		
acid (2,4 -D)	0		L				
Diclofop-methyl	9	1	1	04/11/02	<0.9	no	
Dimethoate	IMAC=20	_ 1	1	04/11/02	<2.5	no	
Dinoseb	10	1	1	04/11/02	<1.0	no	
Diquat	70	1	1	04/11/02	<7.0		
Diuron	150	1	1	04/11/02	<10.0		
Glyphosate	IMAC=28	1	1	04/11/02	<10.0		
	0	ļ	<u> </u>				
Heprachlor + Heptachlor	3	1	1	04/11/02	<0.3	no	
epoxide	<del></del>	<b></b>					
Lindane	4	1	1	04/11/02	<0.4		
Malathion	190	1	1	04/11/02	<5.0		
Methoxychlor	900	1	11_	04/11/02	<90.0		
Metolachlor	IMAC=50	11_	1_1_	04/11/02	<0.5		
Metribuzin	80	1		04/11/02	<5.0		
Paraquat	IMAC=10	1	11_	04/11/02	<1.0	no	
Parathion	50	1_1_	1_1_	04/11/02	<1.0	no	
Pentachlorophenol	60	11_	11	04/11/02	<0.5		
Phorate	IMAC=2	11_	11	04/11/02	<0.5		
Picloram	IMAC=19	1	1	04/11/02	<5.0	no	
l	0	<u> </u>					

April - June 2002, Crysler Water Plant - Serving the Village of Crysler

Polychlorinated Biphenyls	IMAC=3	ı	1	04/11/02	<0.3	no	
Prometryne	IMAC=1	11	1	04/11/02	< 0.25	no	
Simazine	IMAC=10	1	1	04/11/02	<1.0	no	
Temephos	IMAC=28 0	1	1	04/11/02	<10	no	
Terbufos	IMAC=1	1	1	04/11/02	<0.7	no	
2,3,4,6 Tetrachlorophenol	100	1	1	04/11/02	<0.5	_ no	
Triallate	230	1	1	04/11/02	<1.0	no	
2,4,6-Trichlorophenol	5	1	1	04/11/02	<0.5	no	
2,4,5 - trichlorophenoxy acedic acid	IMAC=28	1	1	04/11/02	<1.0	no	
Trifluralin	45	1	1	04/11/02	<1.0	no	

Additional Parameters Non-Health Related (mg/L)	AO or OG		# of Detectable Results	•	Range	Exceedence?	Typical Source of Contaminant
Calcium		1	1	01/21/02	57	no	
Magnesium		1	1	01/21/02	- 8	no	
Potassium		1	1	01/21/02	1	no_	

#### **Questions & Answers**

- Q. What is an Accredited Laboratory?
- A. Accredited labs must have undergone an on-site assessment and performance review of their methods by the Canadian Association of Environmental and Analytical Laboratories. The Standards Council of Canada grants accreditation to the lab based on the recommendation of the CAEAL. The accreditation requirements are repeated every two years.
- Q. What had to be done to meet the new regulations?
- A. The Crysler Water Treatment Plant was following the Ontario Drinking Water Objectives (ODWO) before they became law, so little change was required to meet the new regulations. Our chlorine residual in the water leaving the plant was raised to slightly to achieve the (0.20 mg/L free chlorine) required level in the distribution system, and some changes were required in the way results are reported. This report to the public is also the result of the new regulations.
- Q. What parameters did you test for?
- A. Microbiological parameters, volatile organics, inorganics and pesticides and PCB's have been tested. The results are included in this report.
- Q. Sometimes my water looks rusty or coloured. Why is that, and what should I do about it?
- A. This is quite often caused when the tanks in older water heaters start to decay. If the colour is seen only in your hot water, this may be the problem. If the colour is also noticed in your cold water it could be coming from the water main. Various maintenance procedures in the distribution system such as fire hydrant and valve maintenance, or main break repairs require flushing of the water mains. Flushing can cause small particles of sediment to break off adding colour to the water. Please note that there is no health risk associated with this problem. This is usually only temporary, and opening your taps for a while to flush out your service line (the pipe from the water main to your house) should take care of the problem. Let the water run until the colour disappears.

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

industrial Dr. Chesterville, ON

**K0C 1H0** 

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220002967

Project:

**Crysler WTP** 

Date Sampled:

April 2, 2002

Date Received:

April 3, 2002

**Date Printed:** 

April 05, 2002

Matrix:

**Drinking Water** 

•						
			Well #1 Raw	Weil #1 Treated	Dist. Water Tower	Dist. SPS
Total Chlorine	mg/L	0.05		1.00	1.50	1.00
Free Chlorine	mg/L	0.05		1.00	1.40	1.00
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	absent	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Certificate of Analysis

**Client:** 

ntario Clean Water Agency

industrial Dr.

Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

Report:

220003204

Project:

Crysler WTP

Date Sampled:

April 8, 2002

Date Received:

Matrix:

April 9, 2002

Date Printed:

April 11, 2002 Drinking Water

Parameter	Unit	MDL	Sample Identification

,			Well #1 Raw	Well #1 Treated	Dist. Crysler Satellite	Dist. Post Office
Total Chlorine	mg/L	0.05		1.60	1.10	1.20
Free Chlorine	mg/L	0.05		1.50	1.00	1.20
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2	4	2	2	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

**Client:** 

ntario Clean Water Agency

ndustrial Dr. Chesterville, ON

K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220003482

Project:

Crysler WTP

Date Sampled:

April 15, 2002

Date Received:

April 16, 2002

Date Printed:

April 18, 2002

Matrix:

**Drinking Water** 

Parameter	Unit MDL		Sample Identifica	ation		
			Well #1 Raw	Well #1 Treated	Dist. Community Centre	Dist. SPS
Total Chlorine	mg/L	0.05		1.60	1.30	1.30
Free Chlorine	mg/L	0.05		1.50	1.20	1.20
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Cou	nt /mL	2	absent	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

tario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

Client:

**Dave Markell** 

## **Certificate of Analysis**

Report:

220003773 **Crysler WTP** 

Project:

Date Sampled:

Date Received:

Date Printed:

April 22, 2002 April 23, 2002 April 25, 2002

Matrix:

**Drinking Water** 

Paramete	f E. coli	Free CI2	НРС	TC	Total CI2	
Uni	it /100mL	mg/L	/mL	/100mL	mg/L	
MDI Sample ID	_ 1	0.05	2	1	0.05	
Well #1 Raw	absent		2	absent		
Well #1 Treated	absent	2.00	absent	absent	2.20	
Dist. Home Hardware	absent	1.10	absent	absent	1.30	
Dist. Crysler Satellite	absent	1.10		absent	1.30	

MDL

Unit

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

## **Certificate of Analysis**

Report:

220004030

Project:

Crysler WTP

Date Sampled:

April 29, 2002

Date Received:

April 30, 2002

Date Printed:

May 02, 2002

Matrix:

Drinking Water

I						
			Well #1 Raw	Well #1 Treated	Dist. Mini Mart	Dist. Home Satellite
Total Chlorine	mg/L	0.05		1.70	1.10	1.10
Free Chlorine	mg/L	0.05		1.50	1.00	1.00
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	4	
Total Coliforms	/100mL	1	absent	absent	absent	absent

# **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

ATT: Mr. Blair Henderson

**Report Number:** 

2204291

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Date:

2002-04-17

Date Submitted:

2002-04-12

Project:

Crysler - Quarterly Chem

P.O. Number:

Matrix: Supply Water

	_							<u> </u>	
		_	LAB ID:						٦
			ple Date:						٦
		S	ample ID:						٦
				Treated		1	1		
	PARAMETER	1111170	T			<u> </u>			
		UNITS	MDL	ļ	<u> </u>				
	BTEX / 624 / PURGEABLE HYD Benzene	1			<b>]</b>	1			٦
	Toluene	ug/L	0.5	<0.5					1
	Ethylbenzene	ug/L	0.5	<0.5	1				ı
_	m/p-xylene	ug/L	0.5	<b>  &lt;</b> 0.5 /			1		I
_	o-xylene	ug/L	1.0	1.0			1		ı
H	Bromodichloromethane	ug/L	0.5	<0.5					١
•	Bromoform	ug/L	0.3	2.2				1	1
_	bon Tetrachloride	ug/L	0.4	<0.4		1	}		١
ľ	ochlorobenzene	ug/L	0.9	<0.9	ĺ				l
	Chloroform	ug/L	0.2	<0.2	ŀ	]	ŀ		1
	Dibromochloromethane	ug/L	0.5	J.J		ļ			I
	1,2-dichlorobenzene	ug/L	0.3	0.7				1	ı
١,	1 *	ug/L	0.4	<0.4					l
	1,4-dichlorobenzene 1,2-dichloroethane	ug/L	0.4	<0.4					l
		ug/L	0.7	<0.7		]			l
	1,1-dichloroethylene Dichloromethane	ug/L	0.5	<0.5					l
		ug/L	4.0	<4.0			]		١
•	Tetrachloroethylene	ug/L	0.3	<0.3		İ	)	1	١
	Trichloroethylene Vinyl Chloride	ug/L	0.3	<0.3 V					١
	TOTALS	ug/L	0.5	<0.5			Ì		۱
- 1		,		/				1	l
	Trihalomethanes (total)	ug/L	2.0	8.4 🗸					l
	Xylene; total ug/L 2.0			<2.0	j			1	l
₋│	BTEX / 624 Surrogate Recoveri Toluene-d8							1	
		%	)	99					
	1,2-dichloroethane-d4	%		84					1
-	4-bromofluorobenzene	%		102				]	l
ı			1	i			l	l	ı

MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL;

608 Norris Court, Kingston, ON, K7P 2R9

#### REPORT OF ANALYSIS

**Client: Crysler Well Supply** 

**Report Number:** 

**Date Submitted:** 

2204291

Date:

2002-05-02 2002-04-12

ATT: Mr. Blair Henderson

Project:

Crysler - Quarterly

Chem

Sample Matrix

Supply Water

				Sample Matri	X:	Supply Water	
}		LAB ID:					
1	Sam	ple Date:	2002-04-11				
}	Sa	ample ID:	CRW-02				
Ì			Treated			[	l
						,	
PARAMETER	UNITS	MDL			-		
PESTICIDES & PCB's							
Alachlor	mg/L	0.0005	<0.000,5			į.	
Aldicarb	mg/L	0.0050	<0.0050				
Aldrin + Dieldrin	mg/L	0.00007	<0.00007	}		1	
Atrazine	mg/L	0.001	<0.001				
Azinphos-methyl	mg/L	0.002	<0.002			]	
Bendiocarb	mg/L	0.0020	<0.0020				
Bromoxynil	mg/L	0.0005	<0.0005	/		ì	
Carbaryl	mg/L	0.0050	<0.0050	/ /		4	
rbofuran	mg/L	0.0050	<0.0050			(	
ordane (Total)	mg/L	0.0007	<0.0007	chike		]	
Chloropyrifos	mg/L	0.0010	<0.0010	W. Jell		]	
Cyanazine	mg/L	0.0010	<0.0010	chira l		ł	
Diazinon	mg/L	0.0010	<0.0010	,		l .	
Dicamba	mg/L	0.0010	<0.0010				
Diquat	mg/L	0.0070	<0.0070			İ	
2,4-Dichlorophenol	mg/L	0.0005	<0.0005				
DDT	mg/L	0.0030	<0.0030				}
2,4-D	mg/L	0.0010	<0.0010				
Diclofop-methyl	mg/L	0.0009	<0.0009				
Dimethoate	mg/L	0.0025	<0.0025	i			
Dinoseb	mg/L	0.0010	<0.0010	1			
Diuron	mg/L	0.010	<0.010	[			
Glyphosate	mg/L	0.010	<0.010	]	İ		
Heptachlor + Hept. Epoxide	mg/L	0.0003	<0.0003	1			
Lindane (Total)	mg/L	0.0004	<0.0004	ł			
Malathion	mg/L	0.0050	<0.0050	Į.			1
Methoxychlor	mg/L	0.0900	<0.0900	1			ĺ
Metolachlor	mg/L	0.0005	<0.0005				

ND = Not Detected (< MDL)

MDL = Method Detection Limit

Comment:

APPROVAL:

#### **REPORT OF ANALYSIS**

**Client: Crysler Well Supply** 

Report Number:

2204291

Date: **Date Submitted:** 

2002-05-02 2002-04-12

ATT: Mr. Blair Henderson

**Project:** 

Crysler - Quarterly

Chem

Sample Matrix

				Sample Matrix	<b>C</b> :	Supply Water	
		LAB ID:	176576				
	Sam	ple Date:	2002-04-11				
	Sa	ample ID:	CRW-02				
}		_	Treated				
				] }		1	
PARAMETER	UNITS	MDL					
Metribuzin	mg/L	0.005	< 0.005		<del></del>		
Paraquat	mg/L	0.0010	<0.0010				ľ
Parathion	mg/L	0.0010	<0.0010			j	
Pentachlorophenol	mg/L	0.0005	<0.0005			ĺ	
Phorate	mg/L	0.0005	<0.0005	]			
Picloram	mg/L	0.0050	<0.0050	/		l	
PCB's (total)	mg/L	0.0003	< 0.0003	/			
Prometryne	mg/L	0.00025	<0.00025			ļ	1
Simazine	mg/L	0.0010	< 0.0010	l Van . Il			
nephos	mg/L	0.010	<0.010				
bufos	mg/L	0.0007	< 0.0007	of the seal			
2,3,4,6-Tetrachlorophenol	mg/L	0.0005	<0.0005			ĺ	
Triallate	mg/L	0.0010	<0.0010	]			}
2,4,6-Trichlorophenol	mg/L	0.0005	< 0.0005	j j		]	
Trifluralin	mg/L	0.0010	<0.0010	[			
2,4,5-T	mg/L	0.0010	<0.0010				ĺ
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ND = Not Detected (< MDL)

MDL = Method Detection Limit

Comment:

APPROVAL:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

**Report Number:** 

**Date Submitted:** 

2204291

Date:

2002-04-19 2002-04-12

ATT: Mr. Blair Henderson

Project:

Crysler - Quarterly Chem

P.O. Number:

Supply Wate

				Matrix:		Supply Water		
		LAB ID:	176576					
	Sampl	le Date:	2002-04-11					
	San	nple ID:	CRW-02					
		•	Treated				1	
PARAMETER	UNITS	MDL	TREATEDWATER					
N-NO2	mg/L	0.10	<0.10		<del></del>			
N-NO3	mg/L	0.10	0.65					
	,g/ =		] i				l	
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MDL = Method Detection Limit

INC = Incomplete

Comment:

#### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

Report Number:

2204302

Date:

2002-04-17

Date Submitted:

2002-04-12

ATT: Mr. Blair Henderson

Project:

Crysler - Quarterly Chem

P.O. Number:

Matrix: Supply Water

				watrix:		Supply water	
		LAB ID:	176591				
	Sam	ple Date:	2002-04-11				
		mple ID:					
Į.		-	Treated				
PARAMETER	UNITS	MDL					
BTEX / 624 / PURGEABLE HYDROCARBONS							
Bromodichloromethane	ug/L	0.3	2.2				]
Bromoform	ug/L	0.4	<0.4				
Chloroform	ug/L	0.5	5.5	 			
Dibromochloromethane	ug/L	0.3	0.7		<u> </u>		
TOTALS			/	İ			
Trihalomethanes (total)	ug/L	2.0	8.4				ŀ
BTEX / 624 Surrogate Recover							
iene-d8	%		98			1	
	}						
}	1	}	1			}	
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MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

## **Certificate of Analysis**

Report:

220004300

Project:

**Crysler WTP** 

Date Sampled:

May 6, 2002

Date Received:

May 7, 2002

**Date Printed:** 

May 09, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. Sewage Pumping Station SPS	Dist. Med Center
Total Chlorine	mg/L	0.05		1.20	1.10	0.90
Free Chlorine	mg/L	0.05		1.10	1.00	0.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

ndustrial Dr.

Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220004585

Project:

**Crysler WTP** 

Date Sampled:

May 13, 2002

Date Received:

May 13, 2002

Date Printed:

May 15, 2002

Matrix:

**Drinking Water** 

Parameter	Unit	MDL	Sample Identification					
			Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. Satelllite		
Total Chlorine	mg/L	0.05		2.10	1.40	1.50		
Free Chlorine	mg/L	0.05		2.00	1.00	1.10		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2		absent	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

industrial Dr.

Chesterville, ON

K0C 1H0

Attention: **Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220004819

Project:

**Crysler WTP** 

Date Sampled:

May 16, 2002

Date Received: Date Printed:

May 17, 2002 May 21, 2002

Matrix:

**Drinking Water** 

Raw Standby

Unit

E. coli

/100mL

1

1

MDL

absent

Sample Identification

Total Coliforms

/100mL

absent

Division of Caduceon Enterprises Inc.

## **Certificate of Analysis**

Client:

ntario Clean Water Agency

o industrial Dr.

Chesterville, ON

K0C 1H0
Attention:

Dave Markell

Report:

220004903

Project:

Crysler WTP

Date Sampled:

May 21, 2002

Date Received: Date Printed: May 22, 2002 May 24, 2002

Matrix:

Drinking Water

Parameter	Unit	MDL	Sample Identification	n		
			Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Home Hardware
Total Chlorine	mg/L	0.05		1.80	1.20	1.20
Free Chlorine	mg/L	0.05		1.80	1.10	1.10
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220005179

Project:

**Crysler WTP** 

Date Sampled:

May 27, 2002

Date Received: Date Printed: May 28, 2002 May 30, 2002

Matrix:

**Drinking Water** 

Parameter	Unit	MDL	Sample Identification					
			Well #1 Raw	Well #1 Treated	Dist. Crysler Satellite	Dist. Richer Plumbing		
Total Chlorine	mg/L	0.05		1.50	1.30	1.00		
Free Chlorine	mg/L	0.05		1.40	1.20	1.00		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2		absent	2			
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Division of Caduceon Enterprises Inc.

**Certificate of Analysis** 

Client:

tario Clean Water Agency

o Industrial Dr. Chesterville, ON

**K0C 1H0** 

Attention:

**Dave Markell** 

Report:

220005319

Project:

**Crysler WTP** 

Date Sampled:

May 29, 2002

Date Received: **Date Printed:** 

May 30, 2002 May 31, 2002

Matrix:

**Drinking Water** 

**Parameter** Unit MDL Sample Identification

> **Raw Water** -Standby

Well

E. coli

/100mL

1

1

absent

Total Coliforms

/100mL

absent

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220005453

Project:

Crysler WTP

Date Sampled:

June 3, 2002

Date Received: Date Printed:

June 4, 2002 June 06, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. Home Hardware	Dist. Tower
otal Chlorine	mg/L	0.05		1.90	1.20	1.20
ree Chlorine	mg/L	0.05		1.70	1.00	1.00
. coli	/100mL	1	absent	absent	absent	absent
eterotrophic Plate Count	/mL	2		2	absent	
ackground bacteria	/100mL	1	24			
otal Coliforms	/100mL	1	absent	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

Parameter

**Dave Markell** 

#### **Certificate of Analysis**

Report:

220005913

Project:

Crysler WTP

Date Sampled:

June 11, 2002

Date Received:

June 12, 2002

Date Printed:

June 14, 2002

Matrix:

Drinking Water

			Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. School
Total Chlorine	mg/L	0.05		1.70	1.20	1.20
Free Chlorine	mg/L	0.05		1.60	1.10	1.00
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

MDL

Unit

Division of Caduceon Enterprises Inc.

**Client:** 

ario Clean Water Agency

industrial Dr. Chesterville, ON **K0C 1H0** 

Attention:

**Parameter** 

**Dave Markell** 

## **Certificate of Analysis**

Report:

220006129

Project:

**Crysler WTP** 

Date Sampled:

June 17, 2002

Date Received: Date Printed:

June 18, 2002 June 20, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. Sewage Pumping Station	Dist. Satellite System	
Total Chlorine	mg/L	0.05		1.10	0.80	1.20	
Free Chlorine	mg/L	0.05		1.10	0.70	1.00	
E. coli	/100mL	1	absent	absent	absent	absent	
Heterotrophic Plate Count	/mL	2		absent	absent		
Background bacteria	/100mL	1	2				
Total Coliforms	/100mL	1	absent	absent	absent	absent	

Division of Caduceon Enterprises Inc.

**Certificate of Analysis** 

Client:

htario Clean Water Agency

ວ Industrial Dr. Chesterville, ON

**K0C 1H0** Attention:

**Dave Markell** 

Report:

220006428

Project:

Crysler WTP

Date Sampled:

June 24, 2002

Date Received: Date Printed:

June 25, 2002

June 27, 2002

Matrix:

Drinking Water

Parameter	Unit	MDL	Sample Identifica	tion		
			Well #1 Raw	Well #1 Treated	Dist. Home Hardware	Dist. Sewage Pumping Station
Total Chlorine	mg/L	0.05		1.30	1.10	1.20
Free Chlorine	mg/L	0.05		1.10	1.00	1.10
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		2	absent	
Background bacteria	/100mL	1	60			
Total Coliforms	/100mL	1	absent	absent	absent	absent

July-September 2002, Crysler Water Plant - Serving the Village of Crysler

# Crysler Drinking Water Quality

# Ontario Drinking Water Protection Regulations

The Ontario Clean Water Agency, as the contract operator of the Crysler Water Treatment Facility on behalf of the Township of North Stormont, is pleased to present the 2002 Third Quarter Report on drinking water quality. This report has been prepared in response to legislative changes brought about by "Operation Clean Water", an initiative of Ontario's Ministry of the Environment to ensure high quality drinking water for the residents of Ontario. The new regulations put into law what was formerly the Ontario Drinking Water Objectives (ODWO), and sets requirements for public waterworks with regard to sampling and testing, levels of treatment, licensing of staff, and notification of authorities and the public about water quality.

Further information on the Ontario Drinking Water Regulations can be found on the Ministry of the Environment web site at www.ene.gov.on.ca

# Where to contact us for information



Web site at www.ocwa.com

Client Services Representative: John Kingsbury

Phone: (613) 774-3663

E-mail Address: <u>ikingsbury@ocwa.com</u>

Operations Manager: Blair Henderson

Phone: (613) 448-3098

E-mail Address: bhenderson@ocwa.com

You may also contact the Township of North Stormont directly by contacting Rheal Charbonneau, Clerk-Treasurer, Tel. (613) 984-2821 or e-mail address:

admin@northstormont.on.ca

Free copies of this report are available at the Township office or their website @ www.townshipofnorthstormont.on.ca

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July - September 2001, Crysler Water Plant - Serving the Village of Crysler

#### **Crysler Drinking Water Quality**

#### Ontario Drinking Water Protection Regulations

The Ontario Clean Water Agency, as the contract operator of the Crysler Water Treatment Facility on behalf of the Township of North Stormont, is pleased to present its Third Quarter Report in 2001 on drinking water quality. This report has been prepared in response to legislative changes brought about by "Operation Clean Water", an initiative of Ontario's Ministry of the Environment to ensure high quality drinking water for the residents of Ontario. The new regulations put into law what was formerly the Ontario Drinking Water Objectives (ODWO), and sets requirements for public waterworks with regard to sampling and testing, levels of treatment, licensing of staff, and notification of authorities and the public about water quality.

Further information on the Ontario Drinking Water Regulations can be found on the Ministry of the Environment web site at <a href="https://www.ene.gov.on.ca">www.ene.gov.on.ca</a>

#### Where to contact us for information



#### Ontario Clean Water Agency Agence Ontarienne Des Eaux

Web site at www.ocwa.com

Client Services Representative: John Kingsbury

Phone: (613) 821-3371

E-mail Address: jkingsbury@ocwa.com

Operations Manager: Blair Henderson

Phone: (613) 448-3098

E-mail Address: bhenderson@ocwa.com

You may also contact the Township of North Stormont directly by contacting Rheal

Charbonneau, Clerk-Treasurer, Tel. (613) 984-2821 or

e-mail address: norstor@cnwl.igs.net

Free copies of this report are available at the Township office or their website @ www.cnwl.igs.net/~northstormont



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July-September 2002, Crysler Water Plant - Serving the Village of Crysler

#### Introduction

We are proud to report that for the period July to September 2002, your water conformed to the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00. The Ontario Clean Water Agency (OCWA) is dedicated to maximizing public health and safety through efficient and reliable operation of your water facility and distribution system.

#### **Plant Description and Treatment Processes**

Facility Name: Crysler WTP & Distribution System

Total Design Capacity 1,685 cubic meters/day

Raw Water Source Groundwater

Disinfection Method Sodium Hypochlorite

Municipal Location Municipal Office, 2 Victoria Street, Berwick, Ontario

Service Area Village of Crysler

Service Population 600

#### **Operational Description:**

Raw Water Source: Two drilled wells, one duty and one standby, located on County Road 13 east of the Village of Crysler.

Low Lift Pumps: Two submersible pumps direct the water to a common header which feeds directly into the feeder line, approximately 5 kilometers in length, to the distribution grid and elevated storage tank with a storage capacity of 1,238 cubic meters.

<u>Chemical Injection:</u> Sodium Hypochlorite for disinfection and Hydrofluosilicic Acid for fluoridation are injected into the common header after the well pump discharge. The residuals are continuously monitored.

<u>Distribution System:</u> There are approximately 600 persons supplied with water from the Crylser Water Treatment System.

July-September 2002, Crysler Water Plant - Serving the Village of Crysler

#### Quality Control & Compliance With Provincial Regulations

This plant provides multiple barriers against bacteriological contamination. Bacteriological testing is carried out on raw water, treated water and distribution samples on a regular frequency. On-line analysers for chlorine residuals and turbidity ensure daily monitoring of water leaving the plant. Chlorine levels in the distribution system are also checked on a regular basis. More specialized testing occurs monthly and quarterly and includes Volatile Organics, Inorganics, Pesticides and PCB's.

OCWA uses internal compliance auditing techniques by teams from within the organization. OCWA operates the Crysler Water Treatment Facility in accordance with provincial regulations. Here is how we do it:

- Use of Accredited Labs. Analytical tests to monitor your water quality are conducted by a laboratory audited by the Canadian Association for Environmental Analytical Laboratories (CAEAL) and accredited by the Standards Council of Canada (SCC). Accreditation ensures that the laboratory has acceptable laboratory protocols and test methods in place. It also requires the laboratory to provide evidence and assurances of the proficiency of the analysts performing the test methods.
- Operation by Licensed Operators. Your water treatment plant is operated and maintained by the Ontario Clean Water Agency's competent and licensed staff. The mandatory licensing program for operators of drinking water facilities is regulated under the *Ontario Water Resources Act (OWRA)* Regulation 435/93. Licensing means that an individual meets the education and experience requirements and has successfully passed the certificate exam.
- Sampling and Analytical requirements. OCWA follows a sampling and analysis schedule required by *OWRA* Regulation 459/00, the Ontario Drinking Water Standards. More information on sampling and analysis including results are available in this report and from your municipal office.
- Adherence to Ministry Guidelines and Procedures. To ensure the protection of the health and operational excellence, the OCWA adheres to the guidelines and procedures developed by the Ministry of the Environment and the Ministry of Health.

#### Did We Exceed the Standards?

During the third quarter 2002, in the month of August, a treated water sample from Well # 1 was found to exceed the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00. On August 26, 2002, Well # 1 treated water exceeded MAC for Heterotrophic Plate Count with a result of 600/ml. As a result we actively undertook the following remedial actions:

Immediately notified the Ministry of Environment and the Ministry of Health as per the Ontario Drinking Water Standards. Ensured a minimum chlorine residual in the distribution system of greater then 0.2 mg/L. Subsequent re-sampling indicated no adverse results.

July - September 2002, Crysler Water Plant - Serving the Village of Crysler

#### **Definitions & Terms**

 $m^3$  - Cubic Meter,  $1m^3 = 1000$  litres

TCU - True Colour Units

CaCO<sub>3</sub> - Calcium Carbonate

mg - milligram

mg/L - milligrams per litre

ug/L - micrograms per litre

ng/L - nanograms per litre

NTU - Nephelometric Turbidity Units

MAC - Maximum Acceptable Concentration

IMAC - Interim Maximum Acceptable Concentration

**Coliform Bacteria** - a group of commonly occurring rod shaped bacteria. Their presence in a water sample is indicative of inadequate filtration and/or disinfection.

**Fecal Coliform Bacteria** - refers to a subgroup of coliform bacteria present in the digestive system of warm blooded animals and humans.

**Heterotrophic Plate Count** - a method of measuring bacterial content in water samples. Also known as Standard Plate Count.

Organic Parameter - a group of chemical compounds containing carbon.

Inorganic Parameter - a group of chemical compounds not containing carbon.

Raw Water - Surface or ground water available as a source of drinking water that has not received any treatment.

## **Required Testing**

The Ontario Drinking Water Regulations and Certificates of Approval (C of A) set sampling requirements for the plant. All other sampling conforms to the Drinking Water Protection Regulation schedule for sampling and analysis. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases can pick up substances resulting from the presence of animals or from human activity. Your water is extensively tested for the presence of dozens of compounds. The results of all analytical tests are available at your municipal office. The following table lists all compounds analyzed.

July-September 2002, Crysler Water Plant - Serving the Village of Crysler

**Crysler Water Quality Test Results** 

Microbiological Parameters	MAC	# of	# of	Sampling	Range	Exceedence?	Typical Source of
	OT .	Samples	Detectable	Dates	5 5 4		Containment
T . I C I'S	IMAC	40	Results	(m/d/y)	,	1	
Total Coliform (counts/100ml)	0	48	0	09/30/02 07/01/02	n/a	no	Indicate possible
Escherichia Coliform	0	48	0	09/30/02	n/a	no	presence of coliform  Definite indicator of
(counts/100 ml)		40	Ů	07/01/02	ıı a	110	fecal contamination
Heterotrophic Plate Count	500	32	14	09/30/02	2->600	yes	Indicator of
(count/100 ml)				07/01/02			deteriorating water
							quality if greater than
							500
Parameters related to	MAC	# of	# of	Sampling	Range	Exceedence?	Typical Source of
Microbiological Ouality	or IMAC	Samples	Detectable Results	Dates (m/d/y)		1 7/15	Containment
Turbidity (NTU)	1	Continuous	Continuous	09/30/02	0.03-0.34	no	Turbidity is a measure
Turbidity (TVTC)	1 1			07/01/02	0.05-0.54	110	of particles in water
Free Chlorine -	- 1	Continuous	Continuous	09/30/02	0.80-1.69	no	Chlorine added for
Plant Effluent (mg/l)				07/01/02			Disinfection
Free Chlorine-	-	Grab	Weekly	09/30/02	0.57-1.39	no	Objective is 0.20 mg/l
Distribution (mg/l min 0.05		samples		07/01/02			the Distribution Syste
& max. 4.0)		weekly					(min. 0.05 mg/l
Volatile Organics (ug/l)	MAC or	# of	# of	Sampling	Range	Exceedence?	required)
Volatile Organics (ug/1)	MACOI	Samples	Detectable	Dates	Kange	Exceedence	Typical Source of Contaminant
	IMAC	Samples	Results	(m/d/y)			Comammant
Trihalomethanes - Plant	100	1	I	08/08//02	7.5	no	20-12-20 00-17-1
Trihalomethanes - Dist.	100	1	i	08/08/02	7.5	no	
Benzene	5	1	I	08/08/02	<0.5	no	
Carbon Tetrachloride	5	1	1	08/08/02	<0.9	no	
Dichloromethane	50	1	1	08/08/02	<4	no	
1,2 - Dichlorobenzene	200	1	1	08/08/02	<0.4	no	
1, 4 - Dichlorobenzene	5	1	1	08/08/02	<0.4	no	
1,2 - Dichloroethane	IMAC=	1	1	08/08/02	<0.7	no	
1,1 - Dichloroethylene	14	1	1	08/08/02	<0.5	no	
Ethylbenzene	24	1	1	08/08/02	<0.5	no	
Monochlorobenzene	80	1	1	08/08/02	<0.2	no	
Tetrachloroethylene	30	1	1	08/08/02	<0.3	no	
Toluene	24	1	1	08/08/02	<0.5	no	
Trichloroethlyene	50	1	1	08/08/02	<0.3	no	
Vinyl chloride	2	1	1	08/08/02	< 0.5	no	
Xylene	300	2	2	08/08/02	<2.0	no	
Bromodichloromethane	n/a	1	1	08/08/02	1.6	no	•
Bromoform	n/a	1	1	08/08/02	<0.4	no	
Chloroform	n/a	1	1	08/08/02	4	no	
Dibromochloromethane	n/a	1	1 1	08/08/02	0.5	no	
Pesticides & PCB (ug/L)	MAC or IMAC	# of Sample	# of Detectable	Sampling Dates	Range	Exceeder	Typical Source of
	INIAC	Sample	Results	(m/d/y)			Contaminant
Alachlor	IMAC=5	1	1	08/08/02	<0.5	no	
Aldicarb	9	1	1	08/08/02	<5.0		
Aldrin+Dieldrin	0.7	1	1	08/08/02	< 0.01		
Atrazine	IMAC=5	1	1	08/08/02	<0.5		
Azinphos-methyl	20	1	1	08/08/02	<2.0		
Bendiocarb	40	l	1	08/08/02	<2.0		
Bromoxynil	IMAC=5	1	ı	08/08/02	< 0.5	no	
Carbaryl	90	1	1	08/08/02	<5.0		
Carbofuran	90	1	1	08/08/02	<5.0		
Chlordane	7	1	1	08/08/02	< 0.01		
Chloropyrifus	90	1	1	08/08/02	<1.0		
Cyanazine	IMAC=10		1	08/08/02	<1.0		
Diaznon	20	1 1	<u> </u>	08/08/02	<1.0		
Dicamba 2,4 Dichlorophenol	120 900	1 1	1	08/08/02	<1.0		
				08/08/02	< 0.5	no	

July-September 2002, Crysler Water Plant - Serving the Village of Crysler

	IMAC	Samples	Detectable Results	Dates (m/d/y)			Contaminant
	20	,		08/08/02	<0.024	no	
DDT + Metabolites	30	1	1	08/08/02	<1.0	no	
2,4 - Dichlorophenexy acid	IMAC=100	1	1	08/08/02	1.0	110	
(2,4 -D)	9	1	1	08/08/02	<0.9	no	
Diclofop-methyl Dimethoate	IMAC=20	1	1	08/08/02	<2.5	no	<u> </u>
Dimetnoate	10 10	1	1	08/08/02	<1.0	no	
	70	1	1	08/08/02	<7.0	no	
Diquat Diuron	150	1	1	08/08/02	<10.0	no	
	IMAC=280	1	1 1	08/08/02	<10.0	no	
Glyphosate  Heprachlor + Heptachlor	3	1	1	08/08/02	< 0.006	no	
epoxide	,	1	1	00/00/02	40.000	10	
Lindane	4	1	1	08/08/02	< 0.006	no	
Malathion	190	1	1	08/08/02	<5.0	no	
Methoxychlor	900	1	1	08/08/02	<0.024	no	
Metolachlor	IMAC=50	1	1 1	08/08/02	<0.5	no	
Metribuzin	80	1	1	08/08/02	<5.0	no	
	IMAC=10	1	1	08/08/02	<1.0	no	
Paraquat Parathion	50	1	1	08/08/02	<1.0	no	
Pentachlorophenol	60	1	1	08/08/02	<0.5	no	
	IMAC=2	1	1	08/08/02	<0.5	no	
Phorate	IMAC=2	1	1	08/08/02	<5.0	no	· · · · · · · · · · · · · · · · · · ·
Picloram	IMAC=3	1	1	08/08/02	<0.05	no	
Polychlorinated Biphenyls	IMAC=1	1	1	08/08/02	<0.05	no	* .
Prometryne		1	1	08/08/02	<1.0	no	
Simazine	IMAC=10	<del></del>	1 1	08/08/02	<10	no	
Temephos	IMAC=280	1	1	08/08/02	<0.7	no	
Terbufos	IMAC=1	<b>,</b>	1	08/08/02	<0.7	+	-
2,3,4,6 Tetrachlorophenol	100	1	<del> </del>	08/08/02	<1.0	no	
Triallate	230	1	1 1	08/08/02	<0.5	no	
2,4,6-Trichlorophenol	)	I	1	08/08/02	<0.5	no	
2,4,5 - trichlorophenoxy	IMAC=280	1	1	08/08/02	<1.0	no	
acedic acid							
Trifluralin	45	1	1	08/08/02	<1.0	no	
Additional Parameters	AO or OG	# of	# of	Sampling	Range	Exceedence?	Typical Source of
Non-Health Related		Samples	Detectable	Dates			Contaminant
(mg/L)			Results	(m/d/y)			
Calcium		1	1	01/21/02	57	no	
Magnesium		1	1	01/21/02	8	no	
Potassium		1	1	01/21/02	1	no	

July - September 2002. Crysler Water Plant - Serving the Village of Crysler

### **Questions & Answers**

- Q. What is an Accredited Laboratory?
- A. Accredited labs must have undergone an on-site assessment and performance review of their methods by the Canadian Association of Environmental and Analytical Laboratories. The Standards Council of Canada grants accreditation to the lab based on the recommendation of the CAEAL. The accreditation requirements are repeated every two years.
- Q. What had to be done to meet the new regulations?
- A. The Crysler Water Treatment Plant was following the Ontario Drinking Water Objectives (ODWO) before they became law, so little change was required to meet the new regulations. Our chlorine residual in the water leaving the plant was raised to slightly to achieve the (0.20 mg/L free chlorine) required level in the distribution system, and some changes were required in the way results are reported. This report to the public is also the result of the new regulations.
- Q. What parameters did you test for?
- A. Microbiological parameters, volatile organics, inorganics and pesticides and PCB's have been tested. The results are included in this report.
- Q. Sometimes my water looks rusty or coloured. Why is that, and what should I do about it?
- A. This is quite often caused when the tanks in older water heaters start to decay. If the colour is seen only in your hot water, this may be the problem. If the colour is also noticed in your cold water it could be coming from the water main. Various maintenance procedures in the distribution system such as fire hydrant and valve maintenance, or main break repairs require flushing of the water mains. Flushing can cause small particles of sediment to break off adding colour to the water. Please note that there is no health risk associated with this problem. This is usually only temporary, and opening your taps for a while to flush out your service line (the pipe from the water main to your house) should take care of the problem. Let the water run until the colour disappears.

## CRYSLER WATER

## REQUIRED SAMPLES

# JULY, AUGUST, SEPTEMBER 2002

**Chemical Parameters** 

Table B & D NO2&NO3

System THM

Flouride

annual

Treated Treated ~

7

Results Initials Received Date

Initials

Samples Collected Date

Treated
Treated


## **Bacti Parameters**

System 2 Sites	Treated	Raw Well#1
E.Coli	E.Coli	E.Coli
Total Coli.	Total Coli.	Total Coli.
HPC 25%	HPC	Background

JULY 29	JULY 22	JULY 15	JULY 8	JULY 1
 Bacti's	Bacti's	Bacti's	Bacti's	Bacti's
7	7	ζ	7	(

AUG. 26	AUG. 19	AUG. 12	AUG. 5
Bacti's	Bacti's	Bacti's	Bacti's

SEPT. 30	SEPT. 23	SEPT. 16	SEPT. 9	SEPT. 2
Bacti's	Bacti's	Bacti's	Bacti's	Bacti's
	1		(	7

Lead Distribution System (Annual)
Table C Treated Water (Jan. 2003)
Sodium Treated Water (Jan. 2007) Flouride Treated Water (Annual)

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Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220006764

Project:

**Crysler WTP** 

Date Sampled:

July 2, 2002

Date Received:

July 3, 2002

**Date Printed:** 

July 05, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identifica	tion		
				Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Crysler Satellite
	Total Chlorine	mg/L	0.05		1.80	1.60	1.10
	Free Chlorine	mg/L	0.05		1.60	1.40	1.00
	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		2	absent	
	Background bacteria	/100mL	1	3			
	Total Coliforms	/100mL	1	absent	absent	absent	absent
ı							

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220007057

Project:

**Crysler WTP** 

Date Sampled:

July 8, 2002

Date Received:
Date Printed:

July 9, 2002 July 11, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. Community Center	Dist. Water Tower		
Total Chlorine	mg/L	0.05		1.03	0.90	1.00		
Free Chlorine	mg/L	0.05		0.95	0.80	0.80		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2		absent	4			
Background bacteria	/100mL	1	absent					
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Sample Identification

MDL

Unit

Division of Caduceon Enterprises Inc.

Client:

Itario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220007324

Project:

**Crysler WTP** 

Date Sampled:

July 15, 2002

Date Received:
Date Printed:

July 16, 2002 July 18, 2002

Matrix:

Drinking Water

	Tuturiotoi								
				Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. Home Hardware		
1	Total Chlorine	mg/L	0.05		1.00	1.20	0.90		
	Free Chlorine	mg/L	0.05		1.00	1.10	0.80		
	E. coli	/100mL	1	absent	absent	absent	absent		
	Heterotrophic Plate Count	/mL	2		absent	absent			
ı	Background bacteria	/100mL	1	absent					
	Total Coliforms	/100mL	1	absent	absent	absent	absent		

Sample Identification

MDL

Unit

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

itario Clean Water Agency

5 Industrial Dr. Chesterville, ON K0C 1H0

Attention:

Parameter

**Dave Markell** 

### **Certificate of Analysis**

Report:

220007576

Project:

**Crysler WTP** 

Date Sampled:

July 22, 2002

Date Received: Date Printed: July 23, 2002 July 25, 2002

Matrix:

Drinking Water

			Well #1 Raw	Well #1 Treated	Dist. Community Center	Dist. Mini Mart
Total Chlorine	mg/L	0.05		1.70	1.00	1.10
Free Chlorine	mg/L	0.05		1.60	0.80	0.90
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	44	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

Unit

MDL

Division of Caduceon Enterprises Inc.

اعدانent:

tario Clean Water Agency

5 Industrial Dr. Chesterville, ON **K0C 1H0** 

Attention:

**Parameter** 

**Dave Markell** 

### **Certificate of Analysis**

Report:

220007817

Project:

**Crysler WTP** 

Date Sampled:

July 29, 2002

**Date Received:** Date Printed:

July 30, 2002 August 06, 2002

Matrix:

**Drinking Water** 

		-	•			
			Well #1 Raw	Well #1 Treated	Dist. Tower	Dist. Crysler Home Hardware
Total Chlorine	mg/L	0.05		1.80	1.00	1.00
Free Chlorine	mg/L	0.05		1.40	0.80	0.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Background bacteria	/100mL	1	1			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

ATT: Mr. Blair Henderson

Report Number:

2210859

Date:

2002-08-19

**Date Submitted:** 

2002-08-09

Project:

Crysler Wells

P.O. Number:

Matrix: Supply Water

		Matrix:		Supply Water			
		LAB ID:	198047				
1	Sampl	le Date:	2002-08-08				
	Sample ID:				1		
1		•	CRW-02				
				j			
PARAMETER	UNITS	MDL	TREATEDWATER		<del> </del>		<del> </del>
N-NO2	mg/L	0.10	<0.10				<del> </del>
N-NO3	mg/L	0.10	0.17	l		ł	}
	IIIg/L	0.10	0.17				
		1	<b>,</b>	1	1	1	
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MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

**Report Number:** 

2210859

Date:

2002-08-16

**Date Submitted:** 

2002-08-09

ATT: Mr. Blair Henderson

Project:

Crysler Wells

P.O. Number:

Matrix: Supply Water

LAB ID:		198047					
	Sam	ple Date:	2002-08-08				
	Sa	mple ID:	CRW-02				
						1	į ,
<u> </u>	_						
PARAMETER	UNITS	MDL					
BTEX / 624 / PURGEABLE HYD		ONS					
Benzene	ug/L	0.5	<0.5 🗸				
Toluene	ug/L	0.5	<0.5		]	ļ	
Ethylbenzene	ug/L	0.5	<0.5				
m/p-xylene	ug/L	1.0	<1.0		]		
o-xylene	ug/L	0.5	<0.5				
Bromodichloromethane	ug/L	0.3	1.6		1		]
Bromoform	ug/L	0.4	<0.4				
bon Tetrachloride	ug/L	0.9	<0.9				
ochlorobenzene	ug/L	0.2	<0.2				
Chloroform	ug/L	0.5	4.0				
Dibromochloromethane	ug/L	0.3	0.5				
1,2-dichlorobenzene	ug/L	0.4	<0.4			}	
1,4-dichlorobenzene	ug/L	0.4	<0.4			1	
1,2-dichloroethane	ug/L	0.7	<0.7			<b>\</b>	1
1,1-dichloroethylene	ug/L	0.5	<0.5	,			
Dichloromethane	ug/L	4.0	<4.0			ľ	
Tetrachloroethylene	ug/L	0.3	<0.3				
Trichloroethylene	ug/L	0.3	< 0.3		 		1
Vinyl Chloride	ug/L	0.5	<0.5				
TOTALS							İ
Trihalomethanes (total)	ug/L	2.0	6.1				
Xylene; total	ug/L	2.0	<2.0	l l	1		}
BTEX / 624 Surrogate Recoveri	es						
Toluene-d8	%		97				}
1,2-dichloroethane-d4	%		101				
4-bromofluorobenzene	%		101				ļ .

MDL = Method Detection Limit

Comment:

INC = Incomplete



### **REPORT OF ANALYSIS**

**Client: CRYSLER WELL SUPPLY** 

Report Number:

2210854

Date:

2002-08-19

**Date Submitted:** 

2002-08-09

ATT: Mr. Blair Henderson

Project:

P.O. Number:

Matrix: Supply Water

				Matrix:		Supply water	
	LAB ID:	198042					
	Sam	ple Date:	2002-08-08				
			<b>CRW System</b>	-			
		-					
PARAMETER	UNITS	MDL					
BTEX / 624 / PURGEABLE HYDROCARBONS							
Bromodichloromethane	ug/L	0.3	1.8				
Bromoform	ug/L	0.4	<0.4				
Chloroform	ug/L	0.5	5.1				
Dibromochloromethane	ug/L	0.3	0.6		•		
TOTALS							
Trihalomethanes (total)	ug/L	2.0	7.5				i
BTEX / 624 Surrogate Recoveri	ies						
wene-d8	%		97				
							!

MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

608 Norris Court, Kingston, ON, K7P 2R9

### **REPORT OF ANALYSIS**

Client:CRYSLER WELL SUPPLY

**Report Number:** 

2210859

Date:

**Date Submitted:** 

2002-08-29 2002-08-09

ATT: Mr. Blair Henderson

**Project:** 

Crysler Wells

				Sample Matri	x:	Supply Water	
	LAB ID:						
	Sam	ple Date:	8/8/02				
	Sa	ımple ID:	CRW-02				
		,					
PARAMETER	UNITS	MDL					
PESTICIDES & PCB's							
Alachlor	ug/L	0.5	<0.5℃				
Aldicarb	ug/L	5	<5 ~				
Aldrin	ug/L	0.006	<0.006				
Aldrin + Dieldrin	ug/L	0.012	<0.012 🗸				
Atrazine	ug/L	0.5	<0.5 🗸				
Desethyl-atrazine	ug/L	0.5	<0.5				
Atrazine+Desethyl-atrazine	ug/L	1	<1				
Azinphos-methyl	ug/L	2	<2/				
Pasdiocarb	ug/L	2	<2				
noxynil	ug/L	0.5	<0.5				
Carbaryl	ug/L	5	<5 <u>/</u>				
Carbofuran	ug/L	5	<5 ✓	,			
Chlordane (Total)	ug/L	0.012	<0.012 🗸				
a-Chlorodane	ug/L	0.006	<0.006				
g-Chlorodane	ug/L	0.006	<0.006			ļ	
Oxychlorodane	ug/L	0.006	<0.006				
Chloropyrifos	ug/L	1	<1 🗸				:
Cyanazine	ug/L	1	<1 /				:
Diazinon	ug/L	1 1	<1 🗸				
Dicamba	ug/L	1	<1 /				:
Dieldrin	ug/L	0.006	<0.006				
Diquat	ug/L	7	<7				
2,4-Dichlorophenol	ug/L	0.5	<0.5				
DDT + Metabolites	ug/L	0.024	<0.024 ✓				:
o,p'-DDT	ug/L	0.006	<0.006				
p,p'-DDT	ug/L	0.006	<0.006				
2,4-D	ug/L	1 1	<1 🗸				
p,p'-DDE	ug/L	0.006	< 0.006				
	J					}	

NOTE: mg/L=1000xug/L

MDL = Method Detection Limit

Comment:

APPROVAL:

146 Colonnade Road, Unit 8, Nepean, Ontario K2E 7Y1 Tel:(613)727-5692 Fax:(613)727-5222

### **REPORT OF ANALYSIS**

**Client: CRYSLER WELL SUPPLY** 

Report Number:

2210859

Date:
Date Submitted:

2002-08-29 2002-08-09

ATT: Mr. Blair Henderson

Project:

Crysler Wells

				Sample Matri	ix:	Supply Water	
		LAB ID:	198047			<u> </u>	
	Sample Date:						
	Sa	ample ID:	CRW-02				
PARAMETER	UNITS	MDL		<u> </u>			
p,p'-DDD	ug/L	0.006	<0.006			<del></del>	<del> </del> -
Diclofop-methyl	ug/L	0.9	<0.9 /	[		1	
Dimethoate	ug/L	2.5	<2.5		1		
Dinoseb	ug/L	1	<1/				
Diuron	ug/L	10	<10		ł		l
Glyphosate	ug/L	10	<10			1	
Heptachlor	ug/L	0.006	< 0.006				İ
Heptachlor epoxide	ug/L	0.006	<0.006 ✓	1	j	J	
Heptachlor + Hept. Epoxide	ug/L	0.012	< 0.012				
ane	ug/L	0.006	<0.006 🗸		}	1	ļ
wathion	ug/L	5	<5 🗸				
Methoxychlor	ug/L	0.024	<0.024 ~		}	ì	l
Metolachlor	ug/L	0.5	<0.5		J		
Metribuzin	ug/L	5	<5 🗸				[
Paraquat	ug/L	1 1	<1 🗸				
Parathion	ug/L	1 1	<1 //				
Pentachlorophenol	ug/L	0.5	<0.5			ł	
Phorate	ug/L	0.5	<0.5				
Picloram	ug/L	5	<5 ✓ ,				
PCB's (total)	ug/L	0.05	<0.05				
Prometryne	ug/L	0.25	<0.25	:			
Simazine	ug/L	1 1	<1 /				}
Temephos	ug/L	10	<10 🗸				
Terbufos	ug/L	0.7	<0.7				
2,3,4,6-Tetrachlorophenol	ug/L	0.5	<0.5				
Triallate	ug/L	1	<1 //				
2,4,6-Trichlorophenol	ug/L	0.5	<0.5				
Trifluralin	ug/L	1	<1 🗸				
2,4,5-T	ug/L	1	<1 🗸				

NOTE: mg/L=1000xug/L

MDL = Method Detection Limit

Comment:

APPROVAL:

146 Colonnade Road, Unit 8, Nepean, Ontario K2E 7Y1 Tel: (613)727-5692 Fax: (613)727-5222

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

5 Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

### **Certificate of Analysis**

Report:

220008069

Project:

**Crysler WTP** 

Date Sampled:

August 6, 2002

Date Received:
Date Printed:

August 7, 2002 August 09, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. SPS
Total Chlorine	mg/L	0.05		1.00	1.00	0.80
Free Chlorine	mg/L	0.05		1.00	0.80	0.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Background bacteria	/100mL	1	6			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

MDL

Unit

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

o Industrial Dr. Chesterville, ON K0C 1H0

Attention:

Parameter

**Dave Markell** 

**Certificate of Analysis** 

Report:

220008351

Project:

**Crysler WTP** 

Date Sampled:

August 12, 2002

Date Received:

August 13, 2002

**Date Printed:** 

August 15, 2002

Matrix:

Drinking Water

			Well #1 Raw	Well #1Treated	Dist. Home Hardware	Dist. Post Office
Total Chlorine	mg/L	0.05		1.40	0.80	0.90
Free Chlorine	mg/L	0.05		1.30	0.80	0.80
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	40	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

Division of Caduceon Enterprises Inc.

Client:

ario Clean Water Agency

5 Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

### **Certificate of Analysis**

Report:

220008618

Project:

**Crysler WTP** 

Date Sampled:

August 19, 2002

Date Received:

August 20, 2002

Date Printed:

August 22, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identificat	tion		
				Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. S.P.S.
	Total Chlorine	mg/L	0.05		1.40	1.10	1.00
Ī	Free Chlorine	mg/L	0.05		1.20	1.00	0.90
	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		absent	absent	
	Background bacteria	/100mL	1	absent			
	Total Coliforms	/100mL	1	absent	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

Ontario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention: Parameter **Dave Markell** 

### **Certificate of Analysis**

Report:

220008934

Project:

**Crysler WTP** 

Date Sampled:

August 26, 2002

Date Received:

August 27, 2002

**Date Printed:** 

August 29, 2002

Matrix:

**Drinking Water** 

•							
				Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. Paul Provost Construction
	Total Chlorine	mg/L	0.05		1.40	0.90	0.70
l	Free Chlorine	mg/L	0.05		1.30	0.70	0.60
j	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		>600	4	
ł	Background bacteria	/100mL	1	absent			
	Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification



Division of Caduceon Enterprises Inc.

Client:

Entario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

### **Certificate of Analysis**

Report:

220009120

Project:

**Crysler WTP** 

Date Sampled: Date Received:

August 29, 2002 August 30, 2002

Date Printed:

September 03, 2002

Matrix:

	Parameter	Unit	MDL.	Sample Identification				
				Well #1 Raw -Special	Well #1 Treated -Special	Dist. Elevated Tank - Special		
	Total Chlorine	mg/L	0.05		0.98	0.93		
Ì	Free Chlorine	mg/L	0.05		0.83	0.85		
	E. coli	/100mL	1	absent	absent	absent		
Ì	Heterotrophic Plate Count	/mL	2	10	8	absent		
	Total Coliforms	/100mL	1	absent	absent	absent		
_								

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

industrial Dr. Chesterville, ON

K0C 1H0 Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220009147

Project:

Crysler WTP August 30, 2002

Date Sampled: **Date Received:** 

August 30, 2002

Date Printed:

September 03, 2002

Matrix:

Parameter	Unit	MDL	Sample Identifica	tion		
			Well #1 Raw Special	Well #1 Treated Special	Elevated Tank Special	
Total Chlorine	mg/L	0.05		1.42	0.84	
Free Chlorine	mg/L	0.05		1.39	0.71	
E. coli	/100mL	1	absent	absent		
Heterotrophic Plate Count	/mL	2	absent	absent	absent	
Total Coliforms	/100mL	1	absent	absent	absent	

Division of Caduceon Enterprises inc.

**Client:** 

Antario Clean Water Agency

idustrial Dr. Chesterville, ON

**K0C 1H0** 

Attention: Dave Markell

**Certificate of Analysis** 

Report:

220009147

Project:

Crysler WTP

Date Sampled:

August 30, 2002

Date Received: Date Printed: August 30, 2002 October 25, 2002

Matrix:

**Drinking Water** 

Parameter	Unit	MDL	Sample Identification				
			Well #1 Raw Special	Well #1 Treated Special	Elevated Tank Special		
Total Chlorine	mg/L	0.05		1.42	0.84		
Free Chlorine	mg/L	0.05		1.39	0.71		
E. coli	/100mL	1	absent	absent	absent		
Heterotrophic Plate Count	/ml	2	absent	absent	absent		
Total Coliforms	/100mL	1	absent	absent	absent		

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Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

ndustrial Dr. Chesterville, ON

K0C 1H0 Attention:

**Dave Markell** 

### **Certificate of Analysis**

Report:

220009264

Project:

Crysler WTP

Date Sampled:

September 3, 2002

Date Received: Date Printed:

September 4, 2002 September 06, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identificatio	n		
]				Well #1 Raw	Well #1 Treated WTP	Home Hardware	Catholic School
T	otal Chlorine	mg/L	0.05		1.15	0.86	0.99
F	ree Chlorine	mg/L	0.05		1.05	0.68	0.84
E	. coli	/100mL	1	absent	absent	absent	absent
H	eterotrophic Plate Count	/mL	2		absent	180	
P	ackground bacteria	/100mL	1	absent			
T	otal Coliforms	/100mL	1	absent	absent	absent	absent
•							

Division of Caduceon Enterprises inc.

Client:

Ontario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220009539

Project:

Crysler WTP

Date Sampled:

September 9, 2002

Date Received: Date Printed:

September 10, 2002 September 12, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identificati	on		
				Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. Community Health Center
	Total Chlorine	mg/L	0.05		1.33	0.85	0.68
	Free Chlorine	mg/L	0.05		1.20	0.77	0.63
ı	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		4	2	
}	Background bacteria	/100mL	1	absent			
	Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

**Certificate of Analysis** 

Report:

220009883

Project:

Crysler WTP

Date Sampled:

September 16, 2002

Date Received: Date Printed:

September 17, 2002

September 19, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identification	on		
				Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Crysler Convenience
	Total Chlorine	mg/L	0.05		1.06	0.97	0.96
I	Free Chlorine	mg/L	0.05		0.93	0.77	0.87
	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		2	2	
	Background bacteria	/100mL	1	3			
	Total Coliforms	/100mL	1	absent	absent	absent	absent
_							

Division of Caduceon Enterprises Inc.

Client:

**Ontario Clean Water Agency** 

lustrial Dr. Chesterville, ON

K0C 1H0 Attention:

Dave Markell

**Certificate of Analysis** 

Report:

220010232

Project:

Crysler WTP

Date Sampled:

September 23, 2002

Date Received:

September 24, 2002

Date Printed:

September 26, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification					
			Well #1 Raw	Well #1 Treated	Dist. Crysler Tower	Dist. Paul Provost		
Total Chlorine	mg/L	0.05		1.18	0.79	0.71		
Free Chlorine	mg/L	0.05		1.00	0.67	0.57		
E. coli	/100mL	1	absent	absent	absent	absent		
Heterotrophic Plate Count	/mL	2		2	absent			
Background bacteria	/100mL	1	1					
Total Coliforms	/100mL	1	absent	absent	absent	absent		

Unit

MDL

Division of Caduceon Enterprises inc.

Client:

stario Clean Water Agency

dustrial Dr. Chesterville, ON **K0C 1H0** 

Attention:

**Parameter** 

**Dave Markell** 

### **Certificate of Analysis**

Report:

220010462

Project:

**Crysler WTP** 

Date Sampled:

September 30, 2002

**Date Received: Date Printed:** 

October 1, 2002 October 25, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well <b>#1</b> Treated	Dist. Post Office	Dist. SPS
Total Chlorine	mg/L	0.05		1.14	0.71	0.77
Free Chlorine	mg/L	0.05		1.11	0.61	0.66
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	50	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification



Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

**Ontario Clean Water Agency** 

ndustrial Dr. Chesterville, ON **K0C 1H0** 

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220010462

Project:

**Crysler WTP** 

Date Sampled:

September 30, 2002

Date Received: Date Printed:

October 1, 2002 October 03, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Weli #1	Dist. Post	Dist. SPS
			77011 71 1121	Treated	Office	Diet. 373
Total Chlorine	mg/L	0.05		1.14	0.71	0.77
Free Chlorine	mg/L	0.05		1.11	3.61	0.66
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	50	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample Identification

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Crysler Drinking Water Quality**

### Ontario Drinking Water Protection Regulations

The Ontario Clean Water Agency, as the contract operator of the Crysler Water Treatment Facility on behalf of the Township of North Stormont, is pleased to present the 2002 Fourth Quarter Report on drinking water quality. This report has been prepared in response to legislative changes brought about by "Operation Clean Water", an initiative of Ontario's Ministry of the Environment to ensure high quality drinking water for the residents of Ontario. The new regulations put into law what was formerly the Ontario Drinking Water Objectives (ODWO), and sets requirements for public waterworks with regard to sampling and testing, levels of treatment, licensing of staff, and notification of authorities and the public about water quality.

Further information on the Ontario Drinking Water Regulations can be found on the Ministry of the Environment web site at www.ene.gov.on.ca

### Where to contact us for information



Web site at www.ocwa.com

Client Services Representative:

John Kingsbury

Phone: (613) 774-3663

E-mail Address: jkingsbury@ocwa.com

Operations Manager:

Blair Henderson

Phone: (613) 448-3098

E-mail Address: bhenderson@ocwa.com

You may also contact the Township of North Stormont directly.

Rheal Charbonneau, Clerk - Treasurer

Phone: (613) 984-2821

E-mail Address: admin@townshipofnorthstormont.on.ca

Free copies of this report are available at the Township Office at 2 Victoria St. Berwick, or their website @ www.townshipofnorthstormont.on.ca



### INSIDE THIS REPORT

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### Introduction

We are proud to report that for the period October to December 2002, your water conformed to the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00. The Ontario Clean Water Agency (OCWA) is dedicated to maximizing public health and safety through efficient and reliable operation of your water facility and distribution system.

### Plant Description and Treatment Processes

Facility Name: Crysler WTP & Distribution System

Total Design Capacity 1,685 cubic meters/day

Raw Water Source Groundwater

Disinfection Method Sodium Hypochlorite

Municipal Location Municipal office, 2 Victoria Street, Berwick

Service Area Village of Crysler

Service Population 600

### **Operational Description:**

Raw Water Source: Two drilled wells, one duty and one standby, located on County Road 13 east of the Village of Crysler.

Low Lift Pumps: Two submersible pumps direct the water to a common header which feeds directly into the feeder line, approximately 5 kilometers in length, to the distribution grid and elevated storage tank with a storage capacity of 1,238 cubic meters.

Chemical Injection: Sodium Hypochlorite for disinfection and Hydrofluosilicic Acid for fluoridation are injected into the common header after the well pump discharge. The residuals are continuously monitored.

<u>Distribution System</u>: There are approximately 600 persons supplied with water from the Crylser Water Treatment System.

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Quality Control & Compliance With Provincial Regulations**

This plant provides multiple barriers against bacteriological contamination. Bacteriological testing is carried out on raw water, treated water and distribution samples on a regular frequency. On-line analysers for chlorine residuals and turbidity ensure daily monitoring of water leaving the plant. Chlorine levels in the distribution system are also checked on a regular basis. More specialized testing occurs monthly and quarterly and includes Volatile Organics, Inorganics, Pesticides and PCB's.

OCWA uses internal compliance auditing techniques by teams from within the organization. OCWA operates the Crysler Water Treatment Facility in accordance with provincial regulations. Here is how we do it:

- Use of Accredited Labs. Analytical tests to monitor your water quality are conducted by a
  laboratory audited by the Canadian Association for Environmental Analytical Laboratories
  (CAEAL) and accredited by the Standards Council of Canada (SCC). Accreditation ensures
  that the laboratory has acceptable laboratory protocols and test methods in place. It also
  requires the laboratory to provide evidence and assurances of the proficiency of the analysts
  performing the test methods.
- Use of Accredited Labs. Analytical tests to monitor your water quality are conducted by a
  laboratory audited by the Canadian Association for Environmental Analytical Laboratories
  (CAEAL) and accredited by the Standards Council of Canada (SCC). Accreditation ensures
  that the laboratory has acceptable laboratory protocols and test methods in place. It also
  requires the laboratory to provide evidence and assurances of the proficiency of the analysts
  performing the test methods.
- Operation by Licensed Operators. Your water treatment plant is operated and maintained by the Ontario Clean Water Agency's competent and licensed staff. The mandatory licensing program for operators of drinking water facilities is regulated under the *Ontario Water Resources Act (OWRA)* Regulation 435/93. Licensing means that an individual meets the education and experience requirements and has successfully passed the certificate exam.
- Sampling and Analytical requirements. OCWA follows a sampling and analysis schedule required by *OWRA* Regulation 459/00, the Ontario Drinking Water Standards. More information on sampling and analysis including results are available in this report and from your municipal office.
- Adherence to Ministry Guidelines and Procedures. To ensure the protection of the health and
  operational excellence, the OCWA adheres to the guidelines and procedures developed by the
  Ministry of the Environment and the Ministry of Health.

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Annual Compliance Report**

The Annual Compliance Report covers the period from January 1, 2002 to December 31, 2002. Copies of the report will be made available for inspection by any member of the public during normal business hours without charge at the Township Office. The Annual Compliance Rport for 2002 will be completed and made available not later than March 31, 2003.

The Compliance Report will include, at a minimum, the following:

- A statement as to compliance with all of the terms and conditions of the certificate and a detailed description of all of the measures taken to ensure compliance with the certificate, including and supporting data or other information;
- In the event of any non-compliance during the reporting period, details of the non-compliance as well as 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 the Certificate of Approval, including monthly average and maximum daily flows;
- A summary of records related to flow rate excedences, 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 the Certificate of Approval;
- A summary listing treatment chemicals used, including average dosage rates with special reference to any abnormal usages

### Did We Exceed the Standards?

During the fourth quarter of 2002, no water samples exceeded the Ontario Drinking Water Standards as set out in Ontario Regulation 459/00.

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Definitions & Terms**

 $m^3$  - Cubic Meter,  $1 m^3 = 1000$  litres

TCU - True Colour Units

CaCO<sub>3</sub> - Calcium Carbonate

mg - milligram

mg/L - milligrams per litre.

ug/L - micrograms per litre.

ng/L - nanograms per litre.

NTU - Nephelometric Turbidity Units.

**MAC** - Maximum Acceptable Concentration

**IMAC** - Interim Maximum Acceptable Concentration

**Coliform Bacteria -** a group of commonly occurring rod shaped bacteria. Their presence in a water sample is indicative of inadequate filtration and/or disinfection.

**Fecal Coliform Bacteria** - refers to a subgroup of coliform bacteria present in the digestive system of warm blooded animals and humans

**Background Count** - a method of measuring bacterial content in water samples **Heterotrophic Plate Count** - a method of measuring bacterial content in water samples. Also known as Standard Plate Count.

Organic Parameter - a group of chemical compounds containing carbon

Inorganic Parameter - a group of chemical compounds not containing carbon

Raw Water - Surface or ground water available as a source of drinking water that has not received any treatment.

### **Required Testing**

The Ontario Drinking Water Regulations and Certificates of Approval (C of A) set sampling requirements for the plant. All other sampling conforms to the Drinking Water Protection Regulation schedule for sampling and analysis. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases can pick up substances resulting from the presence of animals or from human activity. Your water is extensively tested for the presence of dozens of compounds. The results of all analytical tests are available at your municipal office. The following table lists all compounds analyzed.

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Crysler Water Quality Test Results**

Microbiological Parameters		Samples	Detectable	Dates		Exceedings (	Typical Source of Containment
Total Coliform,Raw (CFU/100mL)	n/a	13	6	10/07 - 12/30 weekly	1-51	n/a	Indicate possible presence of fecal matter
E. Coli, Raw (CFU/100 mL)	n/a	13	0	10/07 - 12/30 weekly	n/a	n/a	Definite indicator of fecal contamination
Background Count, Raw (CFU/100 mL)	n/a	13	10	10/07 - 12/30 weekly	1-52	n/a	Indicator of adverse water quality
Total Coliform, Treated (CFU/100mL)	0	13	0	10/07 - 12/30 weekly	n/a	no	Indicate possible presence of fecal matter
E. coli, Treated (CFU/100 mL)	0	13	0	10/07 - 12/30 weekly	n/a	no	Definite indicator of fecal contamination
Hetrotrophic Plate Count, Treated (CFU/1 mL)	500	13	1	10/07 - 12/30 weekly	4	no	Indicator of adverse water quality
Total Coliform, Dist. (CFU/100mL)	0	26	0	10/07 - 12/30 weekly	n/a	no	Indicate possible presence of fecal matter
E. Coli, Dist. (CFU/100 mL)	0	26	0	10/07 - 12/30 weekly	n/a	no	Definite indicator of fecal contamination
Hetrotrophic Plate Count, Dist. (CFU/1 mL)	500	13	5	10/07 - 12/30 weekly	2-14	no	Indicator of adverse water quality

Parameters calated to Microbiological Quality	MAC DE IMAC	a of Samples s	Detectable Results	Samplings Date(%) (pvd)		Exceedence	Typical Source of
Turbidity (NTU)	1	Continuous	Continuous	10/01/02- 12/31/02	0.03-0.28	no	Turbidity is a measure of particles in water
Free Chlorine – Plant Effluent (mg/l)	-	Continuous	Continuous	10/01/02- 12/31/02	0.60-1.47	no	Chlorine added for Disinfection
Free Chlorine- Distribution (mg/l min 0.05 & max. 4.0)	-	Grab samples weekly	Weekly	10/07/02- 12/30/02	0.51-0.91	no	Objective is 0.20 mg/l in the Distribution System (min. 0.05 mg/l required)

<u>Comments</u>: MAC/IMAC values do not apply to Raw Water results. MOE recommend a level of at least 0.2 mg/l free chlorine residual in system to maintain microbiological quality in system. Adverse water quality occurs when the free chlorine residual is less than 0.05mg/l.

Inorganic Parameters (mg/l)		# of Samples	Detectable	Samping Dates (n/d/y)		Exceedence	Typical Source of Contaminant
Lead - Distribution	0.01	1	l	01/21/02	<0.001	no	Leached from lead solder or brass plumbing fixtures
Nitrate	10	1	1	10/21/02	<0.10	no	Natural component of water
Nitrite	1	1	1	10/21/02	<0.10	no	
Arsenic	IMAC= 0.025	1	1	01/21/02	<0.001	no	
Barium	1	1	1	01/21/02	0.08	no	
Boron	IMAC= 5.0	1	1	01/21/02	<0.05	no	
Cadmium	0.005	1	1	01/21/02	<0.0001	no	
Chromium (Total)	0.05	1	ı	01/21/02	0.002	no	
Copper	1	1	l	01/21/02	0.037	no	
Iron	0.3	1	l	01/21/02	<0.01	no	
Lead	0.01	1	1	01/21/02	<0.001	no	
Manganese	0.05	1	1	01/21/02	0.01	no	
Mercury	0.001	1	1	01/21/02	<0.0001	no	
Selenium	0.01	1	1	01/21/02	<0.001	no	

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

Inorganic Parameters (mg/l)	MAC or IMAC	# of Samples:	Defectable Resolts	Sampling Dates (mody)	Range	Exceedence	Typical Sourcestof Contaminant
Uranium	0.1	1	1	01/21/02	<0.001	no	
Sodium	200	1	1	01/21/02	4	no	
Fluoride	2.4	Continuous	Continuous	Continuous	0.5-0.8	no	

Volatile Organics (ug/l)	MAC 613 IMAC 2	Folia Sumples	#pt Derectable Results	Sampling Dates (nyd/y)	Range	Exceedence	Typical Source of Contantinant
Trihalomethanes - Plant	100	1	1	10/21/02	6.5	no	
Trihalomethanes - Dist.	100	1	1	10/21/02	4.4	no	
Benzene	5	1	1	10/21/02	<0.5	no	
Carbon Tetrachloride	5	1	ı	10/21/02	<0.9	no	
Dichloromethane	50	1	1	10/21/02	<4.0	no	
1,2 - Dichlorobenzene	200	1	1	10/21/02	<0.4	no	
1, 4 - Dichlorobenzene	5	1	1	10/21/02	<0.4	no	
1,2 - Dichloroethane	IMAC=	i	1	10/21/02	<0.7	no	
1,1 - Dichloroethylene	14	1	1	10/21/02	<0.5	no	
Ethylbenzene	24	ı	1	10/21/02	<0.5	no	
Monochlorobenzene	80	1	1	10/21/02	<0.2	no	
Tetrachloroethylene	30	1	1	10/21/02	<0.3	no	
Toluene	24	1	1	10/21/02	<0.5	no	
Trichloroethlyene	50	1	1	10/21/02	<0.3	no	
Vinyl chloride	2	1	1	10/21/02	<0.5	no	
Xylene	300	2	2	10/21/02	<2.0	no	
Bromodichloromethane	n/a	1	1	10/21/02	2	no	
Bromoform	n/a	1	1	10/21/02	<0.4	no	
Chloroform	n/a	1	1	10/21/02	4.5	no	
Dibromochloromethane	n/a	ı	1	10/21/02	<0.3	no	

Pesticides & PCB	MACor	# of	Fol	Sampling Dates	Kange	Exceedance	Typical Source of
Pesticites & PCB (	IMAC	Samples	Remissi	(m/d/y)		4	Contaminant
Alachlor	IMAC=5	1	1	10/21/02	<0.5	по	
Aldicarb	9	1	1	10/21/02	<5.0	no	
Aldrin+Dieldrin	0.7	1	1	10/21/02	<0.012	no	
Atrazine	IMAC=5	1	1	10/21/02	<0.5	no	
Azinphos-methyl	20	1	1	10/21/02	<2.0	no	
Bendiocarb	40	1	1	10/21/02	<2.0	no	
Bromoxynil	IMAC=5	ī	1	10/21/02	<0.5	no	
Carbaryl	90	1	1	10/21/02	<5.0	no	
Carbofuran	90	1	1	10/21/02	<5.0	no	
Chlordane	7	1	1	10/21/02	<0.012	no	
Chloropyrifus	90	1	1	10/21/02	<1.0	no	
Cyanazine	IMAC=10	ı	1	10/21/02	<1.0	no	
Diaznon	20	1	i	10/21/02	<1.0	no	

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

Pesticides & PCB	MATERI	# of	1 W 01	- Sampling		44.	Typical Source of
(ug/L) (cont'd)	MAC 67 IMAC	Samples.	Demotables.	Dates (m/d/y)	Range	Execedence	Contaminant
Dicamba	120	1	1	10/21/02	<1.0	no	
2,4 Dichlorophenol	900	1	1	10/21/02	<0.5	no	
DDT + Metabolites	30	1	1	10/21/02	< 0.024	no	
2,4 - Dichlorophenexy acid (2,4 -D)	IMAC=100	1	1	10/21/02	<1.0	no	
Diclofop-methyl	9	1	1	10/21/02	<0.9	no	
Dimethoate	IMAC=20	1	1	10/21/02	<2.5	no	
Dinoseb	10	1	1	10/21/02	<1.0	no	
Diquat	70	1	1	10/21/02	<7.0	no	
Diuron	150	1	1	10/21/02	<10.0	no	
Glyphosate	IMAC=280	1	1	10/21/02	<10.0	no	
Heprachlor + Heptachlor epoxide	3	ı	1	10/21/02	<0.012	no	
Lindane	4	1	1	10/21/02	< 0.006	no	
Malathion	190	1	1	10/21/02	<5.0	no	
Methoxychlor	900	1	1	10/21/02	< 0.024	no	
Metolachlor	IMAC=50	1	1	10/21/02	<0.5	no	
Metribuzin	80	1	ı	10/21/02	<5.0	no	
Paraquat	IMAC=10	I	1	10/21/02	<1.0	no	
Parathion	50	1	1	10/21/02	<1.0	no	
Pentachlorophenol	60	1	1	10/21/02	<0.5	no	
Phorate	IMAC=2	ı	ı	10/21/02	<0.5	no	
Picloram	IMAC=190	1	1	10/21/02	<5.0	no	
Polychlorinated Biphenyls	IMAC=3	1	1	10/21/02	< 0.05	no	
Prometryne	IMAC=1	1	1	10/21/02	<0.25	no	
Simazine	IMAC=10	1	1	10/21/02	<1.0	no	
Temephos	IMAC=280	1	1	10/21/02	<10	no	
Terbufos	IMAC=1	1	1	10/21/02	<0.7	no	
2,3,4,6 Tetrachlorophenol	100	ī	ı	10/21/02	<0.5	no	
Triallate	230	1	1	10/21/02	<1.0	no	
2,4,6-Trichlorophenol	5	1	1	10/21/02	<0.5	no	
2,4,5 - trichlorophenoxy acedic acid	IMAC=280	1	1	10/21/02	<1.0	no	
Trifluralin	45	1	1	10/21/02	<1.0	no	

Additional Parameters Non-Health Related (mg/h)	g († Samples	A estado Desembles. Results	Sampling  Dates  (ht/d/y)	Rango	Proportenses .	Typical Source of Contaminant
Calcium	 1	1	01/21/02	57	no	
Magnesium	 1	1	01/21/02	8	no	
Potassium	 ı	1	01/21/02	1	no	

October - December 2002, Crysler Water Plant - Serving the Village of Crysler

### **Questions & Answers**

- Q. What is an Accredited Laboratory?
- **A.** Accredited labs must have undergone an on-site assessment and performance review of their methods by the Canadian Association of Environmental and Analytical Laboratories. The Standards Council of Canada grants accreditation to the lab based on the recommendation of the CAEAL. The accreditation requirements are repeated every two years.
- **Q.** What had to be done to meet the new regulations?
- A. The Crysler Water Treatment Plant was following the Ontario Drinking Water Objectives (ODWO) before they became law, so little change was required to meet the new regulations. Our chlorine residual in the water leaving the plant was raised to slightly to achieve the (0.20 mg/L free chlorine) required level in the distribution system, and some changes were required in the way results are reported. This report to the public is also the result of the new regulations.
- **Q.** What parameters did you test for?
- **A.** Microbiological parameters, volatile organic, inorganic and pesticides & PCBs have been tested. The results are included in this report.
- Q. Sometimes my water looks rusty or coloured. Why is that, and what should I do about it?
- A. This is quite often caused when the tanks in older water heaters start to decay. If the colour is seen only in your hot water, this may be the problem. If the colour is also noticed in your cold water it could be coming from the water main. Various maintenance procedures in the distribution system such as fire hydrant and valve maintenance, or main break repairs require flushing of the water mains. Flushing can cause small particles of sediment to break off adding colour to the water. Please note that there is no health risk associated with this problem. This is usually only temporary, and opening your taps for a while to flush out your service line (the pipe from the water main to your house) should take care of the problem. Let the water run until the colour disappears.

# CRYSLER WATER REQUIRED SAMPLES

# OCTOBER, NOVEMBER, DECEMBER 2002

## **Chemical Parameters**

reated	Well #1	NO2&NO3
I calca	VVCI # 1	ו מטופיט מיט
Troopton	<u> </u>	Takla B 8 D

System THM	Table B & D NO2&NO3
	Well#2 Well#2
Treated	Treated Treated

	Collected Initials Received	Samples Results	Date Date
Dion	eived Initials	sults	ate

Treated ✓		Treated	Treated	Treated	reated
<	_			 <	. <
2				z	Dian

### **Bacti Parameters**

Raw Well#1 Treated	E.Coli	Total Coli. Total Coli.	Background HPC
Teated	E.Coli	Total Coli.	HPC
System 2 Sites	E.Coli	Total Coli.	HPC 25%

Nov.24	Nov.17	Nov.10	Nov.3	
Bacti's	Bacti's	Bacti's	Bacti's	

Dec.29	Dec.22	Dec.15	Dec.8	Dec.1
Bacti's	Bacti's	Bacti's	Bacti's	Bacti's

Flouride Treated Water (Annual) Lead Distribution System (Annual) Table C Treated Water (Jan. 2003) Sodium Treated Water (Jan. 2007)

	 -	_		<u> </u>		<u> </u>	_		

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### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

Report Number:

2214704

2002-10-29 2002-10-22

ATT: Mr. Blair Henderson

Date Submitted:

**Quarterly Chemicals** 

P.O. Number:

Matrix:

Project:

Date:

Supply Water

				Matrix:		Supply Water		
	L	AB ID:	212545					
	Sample	e Date:	2002-10-21					
	Sam	nple ID:	CRW-02 Treat	CRW-02 Treat				
		•						
PARAMETER	UNITS	MDL	TREATEDWATER					
N-NO2	mg/L	0.10	√ <0.10					
N-NO3	mg/L	0.10	<b>∀</b> <0.10					
	1							
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						1		
						1		
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MDL = Method Detection Limit

INC = incomplete

Comment:

APPROVAL:

### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

**Report Number:** 

2214704

Date:

2002-10-25

Date Submitted:

2002-10-22

ATT: Mr. Blair Henderson

Project:

**Quarterly Chemicals** 

P.O. Number:

Matrix:

Supply Water

				watrix:		Supply water	
		LAB ID:	212545				
	Sam	ple Date:	2002-10-21				
	Sa	mple ID:	CRW-02				
			Treat		1		]
PARAMETER	UNITS	MDL					
BTEX / 624 / PURGEABLE HYD							
Benzene	ug/L	0.5	<b>&gt;</b> <0.5				
Toluene	ug/L	0.5	<b>√&lt;</b> 0.5				
Ethylbenzene	ug/L	0.5	<b>√&lt;</b> 0.5				
m/p-xylene	ug/L	1.0	<1.0				
o-xylene	ug/L	0.5	<0.5				
Bromodichloromethane	ug/L	0.3	<b>→</b> 2.0				
Bromoform	ug/L	0.4	<b>√</b> <0.4				
Cerbon Tetrachloride	ug/L	0.9	<b>&gt;</b> <0.9				
ochlorobenzene	ug/L	0.2	<b>&gt;</b> <0.2				
Chloroform	ug/L	0.5	<b>√</b> 4.5				1
Dibromochloromethane	ug/L	0.3	<b>~&lt;</b> 0.3				1
1,2-dichlorobenzene	ug/L	0.4	<b>≻</b> 0.4				]
1,4-dichlorobenzene	ug/L	0.4	<b>&gt;</b> <0.4				
1,2-dichloroethane	ug/L	0.7	<b>√</b> <0.7				
1,1-dichloroethylene	ug/L	0.5	<b>∿</b> <0.5				
Dichloromethane	ug/L	4.0	<b>√</b> <4.0				
Tetrachloroethylene	ug/L	0.3	<b>&gt;</b> <0.3	Ì			
Trichloroethylene	ug/L	0.3	><0.3				
Vinyl Chloride	ug/L	0.5	<b>→</b> 0.5		ļ	1	
TOTALS							]
Trihalomethanes (total)	ug/L	2.0	<b>№</b> 6.5			1	
Xylene; total	ug/L	2.0	<b>√</b> <2.0			<b> </b>	
BTEX / 624 Surrogate Recoveri						<b> </b>	1
Toluene-d8	%		97				
1,2-dichloroethane-d4	%	ļ İ	99				
4-bromofluorobenzene	%		100				
	1	1 1	1		1	1	1

MDL = Method Detection Limit

INC = Incomplete

Comment:

APPROVAL:

608 Norris Court, Kingston, ON, K7P 2R9

#### **REPORT OF ANALYSIS**

**Client: CRYSLER WELL SUPPLY** 

Report Number:

2214704

Date:

2002-11-06

**Date Submitted:** 

2002-11-00

ATT: Mr. Blair Henderson

Project:

**Quarterly Chemicals** 

				Sample Matri	x:	Supply Water	
		LAB ID:	212545				
	Sam	ple Date:	2002-10-21				
	Sa	mple ID:	CRW-02				
		-	Treat				]
PARAMETER	UNITS	MDL					
PESTICIDES & PCB's							
Alachlor	ug/L	0.5	<b>√ &lt;</b> 0.5				
Aldicarb	ug/L	5	<b>√</b> <5				<u> </u>
Aldrin	ug/L	0.006	<0.006				
Aldrin + Dieldrin	ug/L	0.012	<b>~&lt;</b> 0.012				
Atrazine	ug/L	0.5	<b>∼</b> <0.5				
Desethyl-atrazine	ug/L	0.5	<0.5				
Atrazine+Desethyl-atrazine	ug/L	1	<1				
Azinphos-methyl	ug/L	2	<b>√</b> <2				
Bendiocarb	ug/L	2	<b>√</b> <2				
moxynil	ug/L	0.5	<b>~</b> <0.5				
Carbaryl	ug/L	5	<b>~</b> <5				
Carbofuran	ug/L	5	<b>→</b> <5				
Chlordane (Total)	ug/L	0.012	<b>~</b> <0.012			,	
a-Chlorodane	ug/L	0.006	<0.006				
g-Chlorodane	ug/L	0.006	<0.006				
Oxychlorodane	ug/L	0.006	<b>→</b> <0.006	]			
Chloropyrifos	ug/L	1	<b>→</b> <1				
Cyanazine	ug/L	1	<b>∀</b> <1				
Diazinon	ug/L	1	<b>√</b> <1	]			
Dicamba	ug/L	1	<b>,&lt;1</b>				
Dieldrin	ug/L	0.006	<0.006				
Diquat	ug/L	7	<b>~</b> <7				
2,4-Dichlorophenol	ug/L	0.5	<b>√&lt;</b> 0.5	1	.II		!
DDT + Metabolites	ug/L	0.024	<b>√</b> <0.024				
o,p'-DDT	ug/L	0.006	<0.006				
p,p'-DDT	ug/L	0.006	<0.006	[			
2,4-D	ug/L	1	<b>&lt;</b> <1				
p,p'-DDE	ug/L	0.006	<0.006	<u> </u>			
1							

NOTE: mg/L (ppm)=1000xug/L (ppb)

MDL = Method Detection Limit

Comment:

APPROVAL:

/VW

#### **REPORT OF ANALYSIS**

**Client: CRYSLER WELL SUPPLY** 

Report Number:

2214704

Date:

2002-11-06

Date Submitted:

2002-10-22

ATT: Mr. Blair Henderson

Project:

**Quarterly Chemicals** 

				Sample Matrix	<b>c:</b>	Supply Water	
		LAB ID:	212545				
	Sam	ple Date:	2002-10-21				
	Sa	mple ID:	CRW-02				
		•	Treat				
PARAMETER	UNITS	MDL					
p,p'-DDD	ug/L	0.006	<0.006				
Diclofop-methyl	ug/L	0.9	<b>∼,</b> <0.9				
Dimethoate	ug/L	2.5	<2.5				
Dinoseb	ug/L	1	<b>~</b> <1				
Diuron	ug/L	10	<b>∼</b> <10	]			
Glyphosate	ug/L	10	<b>&gt;</b> <10	[			
Heptachlor	ug/L	0.006	<0.006				:
Heptachlor epoxide	ug/L	0.006	<0.006				
Heptachlor + Hept. Epoxide	ug/L	0.012	<b>→</b> <0.012				
dane	ug/L	0.006	<b>~&lt;</b> 0.006				
lathion	ug/L	5	<b>`</b> <5				
Methoxychlor	ug/L	0.024	<b>√</b> 0.024				
Metolachior	ug/L	0.5	<b>→</b> <0.5				
Metribuzin	ug/L	5	<b>∼</b> <5				
Paraquat	ug/L	1	~ <1				
Parathion	ug/L	1	<b>~,&lt;</b> 1				
Pentachlorophenol	ug/L	0.5	<b>∼</b> <0.5				
Phorate	ug/L	0.5	<b>→</b> <0.5				
Picloram	ug/L	5	<b>√</b> <5				
PCB's (total)	ug/L	0.05	<b>~&lt;</b> 0.05				
Prometryne	ug/L	0.25	<b>~</b> <0.25				
Simazine	ug/L	1	<b>v</b> <1				
Temephos	ug/L	10	<b>→</b> <10				
Terbufos	ug/L	0.7	<b>~</b> <0.7				
2,3,4,6-Tetrachlorophenol	ug/L	0.5	<b>→</b> <0.5				
Triallate	ug/L	1	<b>→</b> <1				
2,4,6-Trichlorophenol	ug/L	0.5	<b>√</b> <0.5				
Trifluralin	ug/L	1	<b>√</b> <1				
2,4,5-T	ug/L	1	<b>→ &lt;1</b>				
				l			

NOTE: mg/L (ppm)=1000xug/L (ppb)

MDL = Method Detection Limit

Comment:

APPROVAL:

### **REPORT OF ANALYSIS**

Client: CRYSLER WELL SUPPLY

Report Number:

2214705

Date:

2002-10-25

**Date Submitted:** 

2002-10-22

ATT: Mr. Blair Henderson

**Project:** 

**Quarterly Chemicals** 

P.O. Number:

Matrix:

Supply Water

				matrix:	Supply water	
		LAB ID:	212546			
	Samı	ole Date:	2002-10-21			
			CRW-System			
		-				
PARAMETER	UNITS	MDL				
BTEX / 624 / PURGEABLE HYD	ROCARBO	ONS				
Bromodichloromethane	ug/L	0.3	<0.3			
Bromoform	ug/L	0.4	<0.4			
Chloroform	ug/L	0.5	4.4		!	
Dibromochloromethane	ug/L	0.3	<0.3			
TOTALS			1			
Trihalomethanes (total)	ug/L	2.0	4,4			
BTEX / 624 Surrogate Recoveri	ies		,			
Toluene-d8	%		97			
			-	-		

MDL = Method Detection Limit

INC = Incomplete

Comment:

	•	Land Common or Soldense	
APPROVAL:	 <u>~~~</u>		_

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

**Ontario Clean Water Agency** 

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220010889

Project:

**Crysler WTP** 

Date Sampled:

October 7, 2002

Date Received:

October 8, 2002

Date Printed:

October 10, 2002

Matrix:

**Drinking Water** 

				<del></del>		
			Well #1 Raw	Weil #1 Treated	Ecole Notre Dame	Home Hardware
Total Chlorine	mg/L	0.05		1.20	0.87	0.61
Free Chlorine	mg/L	0.05		1.18	0.78	0.51
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Background bacteria	/100mL	1	20 .			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Sample identification

Division of Caduceon Enterprises inc.

Ciient:

ntario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention:

Dave Markell

**Certificate of Analysis** 

Report:

220011205

Project:

**Crysler WTP** 

Date Sampled:

October 15, 2002

Date Received:

October 16, 2002

Date Printed:

October 18, 2002

Matrix:

Parameter	Unit	MDL	Sample Identificat	tion		
			Well #1 Raw	Well #1 Treated	Dist. Elevated Tank	Dist. Crysler Satellite
Total Chlorine	mg/L	0.05		0.80	0.76	0.86
Free Chlorine	mg/L	0.05		0.78	0.65	0.66
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	2	
Background bacteria	/100mL	1	52			
Total Coliforms	/100mL	1	51	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises Inc.

Client:

Ontario Clean Water Agency

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

**Certificate of Analysis** 

Report:

220011479

Project:

**Crysler WTP** 

Date Sampled:

October 21, 2002

Date Received:

October 22, 2002

**Date Printed:** 

October 24, 2002

Matrix:

**Drinking Water** 

			Well #1 Raw	Well #1 Treated	Dist. SPS	Dist. Paul Provost Const.			
Total Chlorine	mg/L	0.05		0.94	0.76	0.62			
Free Chlorine	mg/L	0.05		0.80	0.67	0.51			
E. coli	/100mL	1	absent	absent	absent	absent			
Heterotrophic Plate Count	/mL	2		absent	2				
Background bacteria	/100mL	1	1						
Total Coliforms	/100mL	1	absent	absent	absent	absent			

Sample Identification

Division of Caduceon Enterprises Inc.

Client:

Ontario Clean Water Agency

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

## **Certificate of Analysis**

Report:

220011850

Project:

**Crysler WTP** 

Date Sampled:

October 28, 2002

Date Received:

October 29, 2002

Date Printed:

October 31, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identification	n		
				Well #1 Raw	Well #1 Treated	Dist. Elevated Tank	Dist. Mini-Mart
1	Total Chlorine	mg/L	0.05		0.99	0.79	0.89
	Free Chlorine	mg/L	0.05		0.90	0.70	0.74
l	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mL	2		4	absent	
ì	Background bacteria	/100mL	1	42			
	Total Coliforms	/100mL	1	7	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

Industrial Dr. Chesterville, ON

K0C 1H0
Attention:

**Dave Markell** 

### **Certificate of Analysis**

Report:

220012193

Project:

Crysler WTP

Date Sampled:

November 4, 2002

Date Received: Date Printed: November 5, 2002 November 07, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification	tion		
			Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. SPS
makal dhlamina	mg/L	0.05		1.22	0.93	0.98
Total Chlorine	шу/ ц					
Free Chlorine	mg/L	0.05		1.14	0.89	0.91
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	14	
Background bacteria	/100mL	1	11			
Total Coliforms	/100mL	1	5	absent	absent	absent

Division of Caduceon Enterprises inc.

Client:

ntario Clean Water Agency

5 Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

### **Certificate of Analysis**

Report:

220012680

Project:

Crysler WTP

Date Sampled:

November 12, 2002

Date Received:

November 13, 2002

Date Received:

November 15, 2002

Matrix:

•	Parameter	Unit	MDL	Sample Identification	n		
				Well #1 Raw	Well #1 Treated	Dist. Elevated Tank	Dist. Home Hardware
	Total Chlorine	mg/L	0.05		1.11	0.91	0.90
	Free Chlorine	mg/L	0.05		1.06	0.80	0.79
	E. coli	/100mL	1	absent	absent	absent	absent
	Heterotrophic Plate Count	/mI.	2		absent	14	
	Background bacteria	/100mL	1	12			
	Total Coliforms	/100mL	1	1	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

tario Clean Water Agency

Industrial Dr. Chesterville, ON

K0C 1H0
Attention:

**Dave Markeli** 

# **Certificate of Analysis**

Report:

220012902

Project:

Crysler WTP

Date Sampled:

November 18, 2002

Date Received:
Date Printed:

November 19, 2002 November 21, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification				
			Well # 1 Raw	Well # 1 Treated	Dist. Catholic School	Satellite System	
Total Chlorine	mg/L	0.05		0.97	0.77	0.74	
Free Chlorine	mg/L	0.05		0.87	0.70	0.61	
E. coli	/100mL	1	absent	absent	absent	absent	
Heterotrophic Plate Count	/mL	2		absent	absent		
Background bacteria	/100mL	1	17				
Total Coliforms	/100mL	1	1	absent	absent	absent.	

Division of Caduceon Enterprises Inc.

Client:

Ontario Clean Water Agency

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

# **Certificate of Analysis**

Report:

220013263

Project:

Crysler WTP

Date Sampled:

November 25, 2002

Date Received: Date Printed: November 26, 2002 November 28, 2002

Matrix:

Parameter	Unit	MDL	Sample Identification				
			Well #1 Raw	Well #1 Treated 15642 County Rd	Dist. Home Hardware	Dist. SPS	
Total Chlorine	mg/L	0.05		1.04	0.65	0.71	
Free Chlorine	mg/L	0.05		1.00	0.61	0.63	
E. coli	/100mL	1	absent	absent	absent	absent	
Heterotrophic Plate Count	/mL	2		absent	absent		
Background bacteria	/100mL	1	4				
Total Coliforms	/100mL	1	absent	absent	absent	absent	

Division of Caduceon Enterprises inc.

Client:

tario Clean Water Agency

ndustrial Dr. Chesterville, ON K0C 1H0

Attention:

**Dave Markell** 

## **Certificate of Analysis**

Report:

220013596

Project:

**Crysler WTP** 

Date Sampled:

December 2, 2002

Date Received: Date Printed: December 3, 2002 December 05, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identificat	ion		
				Well #1 Raw	Well #1 Treated	Dist. Elevated Tank	Dist. Crysler Satelite
	Total Chlorine	mg/L	0.05		1.00	0.76	0.76
	Free Chlorine	mg/L	0.05		0.90	0.70	0.66
•	E. coli	/100mL	1	absent	absent	absent	absent
j	Heterotrophic Plate Count	/mL	2		absent	2	
ı	Background bacteria	/100mL	1	4			
	Total Coliforms	/100mL	1	absent	absent	absent	absent

Unit

MDL

Division of Caduceon Enterprises inc.

**Client:** 

**A**ntario Clean Water Agency

Industrial Dr. Chesterville, ON K0C 1H0

Attention:

**Parameter** 

**Dave Markell** 

## **Certificate of Analysis**

Report:

220013979

Project:

**Crysler WTP** 

Date Sampled:

December 9, 2002

Date Received:
Date Printed:

December 10, 2002 December 12, 2002

Matrix:

**Drinking Water** 

			•			
			Well #1 Raw	Well #1 Treated	Dist. Ecole Catholic	Dist. Home Hardware
Total Chlorine	mg/L	0.05		0.90	0.70	0.65
Free Chlorine	mg/L	0.05		0.85	0.64	0.59
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	<b>2</b> .		absent	absent	
Background bacteria	/100mL	1	7			
Total Coliforms	/100mL	1	1	absent	absent	absent
_						

Sample Identification

Division of Caduceon Enterprises Inc.

ntario Clean Water Agency

5 Industrial Dr. Chesterville, ON **K0C 1H0** 

Attention:

**Dave Markell** 

# **Certificate of Analysis**

Report:

220014317

Project:

Crysler WTP

Date Sampled:

December 16, 2002

Date Received:

December 17, 2002

**Date Printed:** 

December 19, 2002

Matrix:

	Parameter	Unit	MDL	Sample Identifica	tion		
				Well #1 Raw	Well #1 Treated	Dist. Post Office	Dist. SPS
	Total Chlorine	mg/L	0.05		1.08	0.90	0.92
	Free Chlorine	mg/L	0.05		1.04	0.81	0.85
	E. coli	/100mL	1	absent	absent	absent	absent
ı	Heterotrophic Plate Count	/mL	2		absent	absent	
	Background bacteria	/100mL	• 1	absent			
I	Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

ntario Clean Water Agency

ndustrial Dr.

Chesterville, ON

**K0C 1H0** 

Attention:

**Dave Markell** 

## **Certificate of Analysis**

Report:

220014630

Project:

**Crysler WTP** 

Date Sampled:

Date Received:

December 23, 2002

December 23, 2002

**Date Printed:** 

December 27, 2002

Matrix:

Parameter	Unit	MDL.	Sample Identificati	Sample Identification		
			Well #1 Raw	Well #1 Treated	Dist. Water Tower	Dist. Home Hardware
Total Chlorine	mg/L	0.05		1.16	0.99	0.70
Free Chlorine	mg/L	0.05		1.12	0.90	0.62
E. coli	/100mL	1	absent	absent	absent	absent
Heterotrophic Plate Count	/mL	2		absent	absent	
Background bacteria	/100mL	1	absent			
Total Coliforms	/100mL	1	absent	absent	absent	absent

Division of Caduceon Enterprises Inc.

Client:

etario Clean Water Agency

ndustrial Dr. Chesterville, ON

K0C 1H0 Attention:

Dave Markell

# **Certificate of Analysis**

Report:

220014785

Project:

Crysler WTP

Date Sampled:

December 30, 2002

Date Received: **Date Printed:** 

December 30, 2002 January 02, 2003

Matrix:

	Parameter	Unit	MDL	Sample Identification	1		
				Well # 1 Raw	Well # 1 Treated	Dist. Crysler Satellite	Dist. Sewage Pumping Station
	Total Chlorine	mg/L	0.05		1.15	0.86	0.89
	Free Chlorine	mg/L	0.05		1.10	0.74	0.83
,	E. coli	/100mL	1	absent	absent	absent	absent
Ì	Heterotrophic Plate Count	/mL	2		absent	absent	
	Background bacteria	/100mL	1	10			
	Total Coliforms	/100mL	1	absent	absent	absent	absent