



SECTION 11 ANNUAL REPORT

Drinking-Water System Number:
Drinking-Water System Name:
Drinking-Water System Owner:
Drinking-Water System Category:
Period being reported:

260091936
Lutterworth Pines DWS
Township of Minden Hills
Small Municipal Residential
January 1, 2013 – December 31, 2013

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>7 Milne Street Minden, Ontario K0M 2K0</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; width: 50px; text-align: center; margin: 5px;">0</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No [X]</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; width: 50px; text-align: center; margin: 5px;">0</div> </p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No [X]</p>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Not Applicable	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [] No [X]



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method

Description of the Drinking-Water System

The Lutterworth Well Supply includes 2 groundwater wells providing duty/standby capability. Three 450L pressure tanks are located on the distribution header and provide a minimum pump cycle time of 4 minutes. Uranium removal is accomplished with the use of one Kinetico media vessel using ion exchange technology along with a 20um cartridge filter upstream of the ion exchange vessel. Disinfection is accomplished using 12% undiluted sodium hypochlorite injected in the common well pump discharge header just upstream of 4 - 452L chlorine contact tanks. A continuous on-line free chlorine residual analyzer is located downstream of the chlorine contact tanks. Magnetic flow meters are located on each well pump discharge line and on the distribution header. There is a emergency standby diesel generator on site.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Uranium filter media/resin replaced
Major repairs and replacement of supply lines from Well One and Two
Air relief valve on Well Two repaired
Install Well Level Monitoring Equipment on Well One and Two
Replacement of Datalogger



Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

DATE	Facility	ORG	Issue	AWQI	RESOLVED
Jan					
2	Lutterworth	5999	Low Treated Cl2	109671	2-Jan
Apr					
5	Lutterworth	5999	Uranium = 21.3	110414	16-Apr
June					
12	Lutterworth	5999	Low Chlorine	111619	17-Jun
Dec					
10	Lutterworth	5999	Loss of Pressure - broken well supply line	115324	16-Dec
20	Lutterworth	5999	BWA - Precautionary for maintenance/upgrades to wells	n/a	24-Dec

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

Location	Number of Samples	Range of E.Coli or Fecal Results (min #) - (max #)	Range of Total Coliform Results (min #) - (max #)	Number of HPC Samples	Range of HPC Results (min #) - (max #)
Raw - RW1	12	0 - 0	0 - 0		-
Raw - RW2	12	0 - 0	0 - 800		-
Distribution - DW	33	0 - 0	0 - 0	33	0 - 4

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity – Raw 1	12	0.21-0.44 NTU
Turbidity – Raw 2	12	0.20-0.43 NTU
Chlorine	8760	0.00-5.00 mg/L
Dist. chlorine	2/week minimum	0.61-3.14 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A

NOTE: For continuous monitors use 8760 as the number of samples.

NOTE: Record the unit of measure if it is not milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Additional	Uranium	Monthly	0.002 - 21.3	ug/L
Additional	Alkalinity	2013/04/11	190	mg/L
Additional	Alkalinity	2013/04/11	150	mg/L
Additional	Alkalinity	2013/04/11	145	mg/L
Additional	Alkalinity	2013/04/11	144	mg/L
Additional	Alkalinity	2013/10/11	155	mg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Exceedance
Please see results attached	2010/04/07 & 2010/05/17		No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	12	0.02-0.43	0
Distribution	3	0.15-1.08	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Exceedance
Please see results attached	2010/04/07		No
THM - 2013 Running Average	2013	10.33	No



List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Uranium	21.3	Ug/L	04-02-13

The Ontario Clean Water Agency aims to strictly adhere to operational and compliance limits, however certain operational circumstances may cause results to be temporarily outside of the limits. Limits that are momentarily surpassed as a result of pump start-ups, power outages/generator tests, pump rotation, calibrations, alarm verification, etc are a normal part of operations and do not indicate a true exceedance. A true exceedance will be noted and documented within the report.

Attachments follow,



Annual Summary - Schedule 23 and Additional Inorganics

Facility: [5999] - Lutterworth Pines Water Treatment Plant
 Works:
 Serviced Population: 80
 Total Design Capacity(m3day): 0
 Tag Group Selected: TW - Treated Water

	01/2013	02/2013	03/2013	04/2013	05/2013	06/2013	07/2013	08/2013	09/2013	10/2013	11/2013	12/2013	Maximum	# of Samples	# of Exceed	Most recent test within last 60 mths		1/2 MAC	MAC
																Date	Result		
Treated Water: Max																			
Antimony (ug/L)																04/07/2010	0.06	3.0	6.0
Arsenic: As (ug/L)																04/07/2010	0.6	12.5	25.0
Barium: Ba (ug/L)																04/07/2010	13.8	500.0	1,000.0
Boron: B (ug/L)																04/07/2010	173.0	2,500.0	5,000.0
Cadmium: Cd (ug/L)																04/07/2010	0.017	2.5	5.0
Chromium: Cr (ug/L)																04/07/2010	0.6	25.0	50.0
Mercury: Hg (ug/L)																04/07/2010	< 0.02	0.5	1.0
Selenium: Se (ug/L)																04/07/2010	< 1.0	5.0	10.0
Uranium: U (ug/L)	1.99	3.42	3.21	21.3	0.005	0.007	0.002	0.013	0.018	0.099	0.098	0.208	21.3	15		12/02/2013	0.208	10.0	20.0
Additional Inorganics																			
Fluoride Residual Mean. (mg/L)																04/07/2010	0.87		1.5
Nitrite (mg/L)	< 0.005			0.024			< 0.003			< 0.003			0.024	4		10/07/2013	< 0.003		1.0
Nitrate (mg/L)	0.104			0.091			0.076			0.092			0.104	4		10/07/2013	0.092		10.0
Sodium: Na (mg/L)																05/17/2010	29.7		20.0



Annual Summary - Schedule 24

Facility: [5999] - Lutterworth Pines Water Treatment Plant
 Works: [260091936] - Lutterworth Pines Water Treatment Plant
 Serviced Population: 80
 Total Design Capacity(m3day): 0
 Tag Group Selected: TW - Treated Water

	01/2012	02/2012	03/2012	04/2012	05/2012	06/2012	07/2012	08/2012	09/2012	10/2012	11/2012	12/2012	Maximum	# of Samples	# of Exceed	Most recent test within last 60 mths		1/2 MAC	MAC	
																Date	Result			
Treated Water: Max																				
Alachlor (ug/L)																	04/07/2010	0.02	2.5	5.0
Aldicarb (ug/L)																	04/07/2010	0.01	4.5	9.0
Aldrin+Dieldrin (ug/L)																	04/07/2010	0.01	0.35	0.7
Atrazine + N-dealkylated metabolites (ug/L)																	04/07/2010	0.01	2.5	5.0
Azinphos-methyl (ug/L)																	04/07/2010	0.02	10.0	20.0
Bendiocarb (ug/L)																	04/07/2010	0.01	20.0	40.0
Benzene (ug/L)																	04/07/2010	0.32	2.5	5.0
Benzo(a)pyrene (ug/L)																	04/07/2010	0.004	0.005	0.01
Bromoxynil (ug/L)																	04/07/2010	0.33	2.5	5.0
Carbaryl (ug/L)																	04/07/2010	0.01	45.0	90.0
Carbofuran (ug/L)																	04/07/2010	0.01	45.0	90.0
Carbon Tetrachloride (ug/L)																	04/07/2010	0.16	2.5	5.0
Chlordane: Total (ug/L)																	04/07/2010	0.01	3.5	7.0
Chlorpyrifos (ug/L)																	04/07/2010	0.02	45.0	90.0
Cyanazine (ug/L)																	04/07/2010	0.03	5.0	10.0
Diazinon (ug/L)																	04/07/2010	0.02	10.0	20.0
Dicamba (ug/L)																	04/07/2010	0.2	60.0	120.0
1,2-Dichlorobenzene (ug/L)																	04/07/2010	0.41	100.0	200.0
1,4-Dichlorobenzene (ug/L)																	04/07/2010	0.36	2.5	5.0
DDT + metabolites (ug/L)																	04/07/2010	0.01	15.0	30.0
1,2-Dichloroethane (ug/L)																	04/07/2010	0.35	2.5	5.0
1,1-Dichloroethylene (ug/L)																	04/07/2010	0.33	7.0	14.0
Dichloromethane (Methylene Chloride) (ug/L)																	04/07/2010	0.35	25.0	50.0
2,4-Dichlorophenol (ug/L)																	04/07/2010	0.15	450.0	900.0
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)																	04/07/2010	0.19	50.0	100.0
Diclofop-methyl (ug/L)																	04/07/2010	0.4	4.5	9.0
Dimethoate (ug/L)																	04/07/2010	0.03	10.0	20.0
Dinoseb (ug/L)																	04/07/2010	0.36	5.0	10.0
Diquat (ug/L)																	04/07/2010	1.0	35.0	70.0
Diuron (ug/L)																	04/07/2010	0.03	75.0	150.0
Glyphosate (ug/L)																	04/07/2010	6.0	140.0	280.0
Heptachlor+hepachlor epoxide (ug/L)																	04/07/2010	0.01	1.5	3.0



Annual Summary - Schedule 24

Facility: [5999] - Lutterworth Pines Water Treatment Plant
 Works: [260091936] - Lutterworth Pines Water Treatment Plant
 Serviced Population: 80
 Total Design Capacity(m3day): 0
 Tag Group Selected: TW - Treated Water

	01/2012	02/2012	03/2012	04/2012	05/2012	06/2012	07/2012	08/2012	09/2012	10/2012	11/2012	12/2012	Maximum	# of Samples	# of Exceed	Most recent test within last 60 mths		1/2 MAC	MAC	
																Date	Result			
Treated Water: Max																				
Lindane (ug/L)																	04/07/2010	0.01	2.0	4.0
Malathion (ug/L)																	04/07/2010	0.02	95.0	190.0
Methoxychlor (ug/L)																	04/07/2010	0.01	450.0	900.0
Metolachlor (ug/L)																	04/07/2010	0.01	25.0	50.0
Metribuzin (ug/L)																	04/07/2010	0.02	40.0	80.0
Monochlorobenzene (Chlorobenzene) (u																	04/07/2010	0.3	40.0	80.0
Paraquat (ug/L)																	04/07/2010	1.0	5.0	10.0
Parathion (ug/L)																	04/07/2010	0.02	25.0	50.0
Pentachlorophenol (ug/L)																	04/07/2010	0.15	30.0	60.0
Phorate (ug/L)																	04/07/2010	0.01	1.0	2.0
Picloram (ug/L)																	04/07/2010	0.25	95.0	190.0
Polychlorinated Biphenyls PCB (ug/L)																	04/07/2010	0.04	1.5	3.0
Prometryne (ug/L)																	04/07/2010	0.03	0.5	1.0
Simazine (ug/L)																	04/07/2010	0.01	5.0	10.0
Temephos (ug/L)																	04/07/2010	0.01	140.0	280.0
Terbufos (ug/L)																	04/07/2010	0.01	0.5	1.0
Tetrachloroethylene (ug/L)																	04/07/2010	0.35	15.0	30.0
2,3,4,6-Tetrachlorophenol (ug/L)																	04/07/2010	0.14	50.0	100.0
Triallate (ug/L)																	04/07/2010	0.01	115.0	230.0
Trichloroethylene (ug/L)																	04/07/2010	0.43	25.0	50.0
2,4,6-Trichlorophenol (ug/L)																	04/07/2010	0.25	2.5	5.0
2,4,5-Trichlorophenoxy acetic acid (2,4,!																	04/07/2010	0.22	140.0	280.0
Trifluralin (ug/L)																	04/07/2010	0.02	22.5	45.0
Vinyl Chloride (ug/L)																	04/07/2010	0.17	1.0	2.0