



March 4, 2025

The Corporation of the Municipality of Huron East  
72 Main St. S  
P.O. Box 610  
Seaforth, ON  
N0K 1W0

**Attention: Brad McRoberts, CAO**  
**RE: Brucefield Well Supply System 2024 Annual Report**

Dear Brad,

Please find attached the 2024 Annual Operations Report for the Brucefield Water System, in accordance with Section 11(1) of O. Reg. 170/03. This report covers the period from January 1 to December 31.

Please ensure that a copy of this report is given, without charge, to every person who requests a copy. In addition, please make certain that effective steps are taken to advise residents that copies of the report are available, and of how a copy can be obtained.

As per Schedule 22 of O. Reg. 170/03, please ensure that at least a copy of the Summary Report is given to the members of municipal council no later than March 31, 2025.

Finally, please ensure that a letter is sent to Jacobs verifying that this report has been received and accepted by Council.

If you have any questions regarding the report, we would be pleased to address them, and you should contact the undersigned accordingly.

Sincerely,

Jacobs (OMI Canada Inc.)

A handwritten signature in black ink, appearing to read "Chris Toulouse".

Christopher Toulouse  
Project Manager  
519-466-8450

cc. B. Mills, Municipality of Huron East  
S. Bromley, Municipality of Huron East  
J. Bloomfield, Jacobs Acting Area Manager

ANNUAL REPORT

Drinking-Water System Number:	220007604
Drinking-Water System Name:	Brucefield Well Supply System
Drinking-Water System Owner:	The Corporation of the Municipality of Huron East
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	Jan 1 <sup>st</sup> – Dec 31 <sup>st</sup> , 2024

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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; margin-top: 10px;"> <p>Municipality of Huron East Town Office 72 Main St. S Box 610 Seaforth, ON N0K 1W0</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;">n/a</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;">n/a</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p>
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**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

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
N/A	N/A

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 [ ]

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

**Describe your Drinking-Water System**

**Water Distribution System Class 2 with Limited Ground Water**

The production well is located at the intersection of Highway 4 and County Road 3. The well is 88.39m deep with a 200mm steel casing. The well is equipped with a submersible pump rated for 318 L/min. The Well House contains four (4) 540L bladder type pressure tanks and provides both primary and secondary disinfection by UV disinfection and use of 12% sodium hypochlorite. The Well House is equipped with a 25-kW diesel generator and automatic transfer switch to provide back up power in the case of utility power loss.

**List all water treatment chemicals used over this reporting period**

**12% Sodium Hypochlorite Solution**

**Were any significant expenses incurred to?**

- ☐ Install required equipment
- ☒ Repair required equipment
- ☒ Replace required equipment

**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**

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

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

	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 #)
<b>Raw Well #1</b>	13	0	0	N/A	N/A
<b>Distribution</b>	53	0	0	52	<10 – 60

**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 #)	Unit of Measure
<b>Turbidity Raw Well #1</b>	14	0.44 – 0.88	NTU
<b>Treated Chlorine Well #1</b>	8760	0.00 – 2.21	mg/l

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

**Summary of Inorganic parameters tested during this reporting period recent sample results**

(<MDL: Below Minimum Detection Limit)				
Note: Sodium + Fluoride sampling required every 60 months. Inorganic sampling required every 36 months.				
Parameter	Sample Date	Result Value Well #1	Unit of Measure	Exceedance
Antimony	Apr 29/24	0.90	ug/L	No
Arsenic	Apr 29/24	0.2	ug/L	No
Barium	Apr 29/24	227	ug/L	No
Boron	Apr 29/24	21	ug/L	No
Cadmium	Apr 29/24	0.011	ug/L	No
Chromium	Apr 29/24	0.24	ug/L	No
Mercury	Apr 29/24	<0.01MDL	ug/L	No
Selenium	Apr 29/24	0.33	ug/L	No
Uranium	Apr 29/24	1.90	ug/L	No
Sodium	Oct /23	10.4	mg/L	No
Fluoride	Oct /23	1.13	mg/L	No
Haloacetic Acids (HAA) (Running Annual Ave)	Q1 – Q4 2024 (Distributio)	5.3	Ug/L	No

Trihalomethanes (THM's) (Running Annual Ave)	Q1 – Q4 (Distribution)	N/A	Ug/L	N/A
Nitrite & Nitrate sampling required Quarterly				
Nitrite	Jan 2024	<0.003 MDL	ug/L	No
Nitrate	Jan 2024	0.714	ug/L	No
Nitrite	Apr 2024	Missed	ug/L	Missed
Nitrate	Apr 2024	Missed	ug/L	Missed
Nitrite	July 2024	<0.003 MDL	ug/L	No
Nitrate	July 2024	0.762	ug/L	No
Nitrite	Oct 2024	<0.003 MDL	ug/L	No
Nitrate	Oct 2024	0.748	ug/L	No

**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)

Sampling Period	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
<b>Dec/23 – Apr/24</b>	1	0.10	ug/L	<b>No</b>
<b>Jun/24 – Oct/24</b>	1	0.55	ug/L	<b>No</b>
<b>Lead Sampling Conducted by Municipality</b>				

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

(<MDL: Below Minimum Detection Limit) Note: Sampling required every 36 months				
Parameter	Sample Date	Result Value Well #1	Unit of Measure	Exceedance
Alachlor	Apr 13/21	<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	Apr 13/21	<MDL	ug/L	No
Atrazine	Apr 13/21	<MDL	ug/L	No

Azinphos-methyl	Apr 13/21	<MDL	ug/L	No
Benzene	Apr 13/21	<MDL	ug/L	No
Benzo(a)pyrene	Apr 13/21	<MDL	ug/L	No
Bromoxynil	Apr 13/21	<MDL	ug/L	No
Carbaryl	Apr 13/21	<MDL	ug/L	No
Carbofuran	Apr 13/21	<MDL	ug/L	No
Carbon Tetrachloride	Apr 13/21	<MDL	ug/L	No
Chlorpyrifos	Apr 13/21	<MDL	ug/L	No
Desethyl atrazine	Apr 13/21	<MDL	ug/L	No
Diazinon	Apr 13/21	<MDL	ug/L	No
Dicamba	Apr 13/21	<MDL	ug/L	No
1,2-Dichlorobenzene	Apr 13/21	<MDL	ug/L	No
1,4-Dichlorobenzene	Apr 13/21	<MDL	ug/L	No
1,2-Dichloroethane	Apr 13/21	<MDL	ug/L	No
1,1-Dichloroethylene (vinylidene)	Apr 13/21	<MDL	ug/L	No
Dichloromethane	Apr 13/21	<MDL	ug/L	No
2-4 Dichlorophenol	Apr 13/21	<MDL	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-	Apr 13/21	<MDL	ug/L	No
Diclofop-methyl	Apr 13/21	<MDL	ug/L	No
Dimethoate	Apr 13/21	<MDL	ug/L	No
Diquat	Apr 13/21	<MDL	ug/L	No
Diuron	Apr 13/21	<MDL	ug/L	No
Glyphosate	Apr 13/21	<MDL	ug/L	No
Malathion	Apr 13/21	<MDL	ug/L	No
MCPA	Apr 13/21	<MDL	ug/L	No
Metolachlor	Apr 13/21	<MDL	ug/L	No
Metribuzin	Apr 13/21	<MDL	ug/L	No
Monochlorobenzene	Apr 13/21	<MDL	ug/L	No
Paraquat	Apr 13/21	<MDL	ug/L	No
Pentachlorophenol	Apr 13/21	<MDL	ug/L	No
Phorate	Apr 13/21	<MDL	ug/L	No
Picloram	Apr 13/21	<MDL	ug/L	No
Polychlorinated Biphenyls(PCB's)	Apr 13/21	<MDL	ug/L	No
Prometryne	Apr 13/21	<MDL	ug/L	No
Simazine	Apr 13/21	<MDL	ug/L	No
Terbufos	Apr 13/21	<MDL	ug/L	No
Tetrachloroethylene	Apr 13/21	<MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	Apr 13/21	<MDL	ug/L	No
Triallate	Apr 13/21	<MDL	ug/L	No
Trichloroethylene	Apr 13/21	<MDL	ug/L	No
2,4,6-Trichlorophenol	Apr 13/21	<MDL	ug/L	No

Trifluralin	Apr 13/21	<MDL	ug/L	No
Vinyl Chloride	Apr 13/21	<MDL	ug/L	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	ODWQS limit