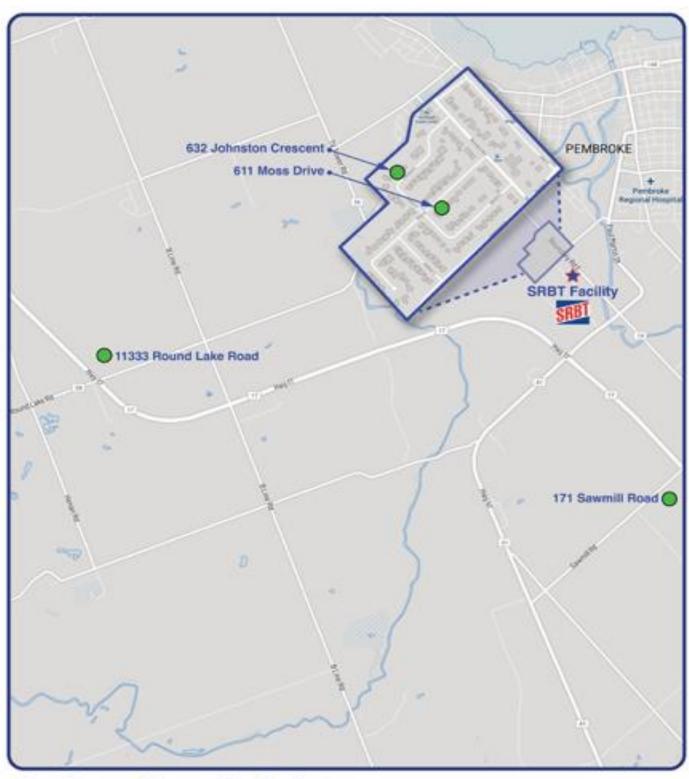
**Map – SRBT Produce Sampling 2023** 



Produce Sample Points

# 2023 Residential Produce Sampling – Free-water Tritium Concentration

Sample	Units	Result
Cucumber	Bq/kg	99
611 Moss Drive	Fresh weight	
Green Onion	Bq/kg	461
611 Moss Drive	Fresh weight	
Beans	Bq/kg	8
171 Sawmill Road	Fresh weight	
Tomatoes	Bq/kg	8
171 Sawmill Road	Fresh weight	
Cucumber	Bq/kg	9
171 Sawmill Road	Fresh weight	
Carrots	Bq/kg	6
171 Sawmill Road	Fresh weight	
Rhubarb	Bq/kg	68
632 Johnston Crescent	Fresh weight	
Zucchini	Bq/kg	48
632 Johnston Crescent	Fresh weight	
Tomatoes	Bq/kg	60
632 Johnston Crescent	Fresh weight	

### 2023 Residential Produce Sampling – Organically-bound Tritium (OBT) Concentration

Sample	Units	Result
Tomatoes	OBT Bq/kg	2
632 Johnston Crescent	Fresh weight	2
Cucumber	OBT Bq/kg	2
611 Moss Drive	Fresh weight	2

# 2023 Commercial Produce Sampling – Free-water Tritium Concentration

Sample	Units	Result
Tomatoes	Bq/kg	3
11333 Round Lake Road	Fresh weight	5
Potatoes	Bq/kg	5
11333 Round Lake Road	Fresh weight	5
Onions	Bq/kg	3
11333 Round Lake Road	Fresh weight	3
Beets	Bq/kg	4
11333 Round Lake Road	Fresh weight	4

### 2023 Commercial Produce Sampling – Organically-bound Tritium (OBT) Concentration

Sample	Units	Result
Tomato	OBT Bq/kg	0
11333 Round Lake Road	Fresh weight	

# Produce Sampling Data Trends 2019-2023

#### **NOTES:**

Data on free-water tritium concentration in sampled produce over the last five years is presented below for all sample locations.

A theoretical effective dose to a person due to produce consumption can be calculated based on the following assumptions:

- 100% of the produce consumed by a person contains a concentration of 300 Bq of free-water tritium per kilogram of produce.
- The person consumes the 95<sup>th</sup> percentile value of produce over the course of the year (as per CSA standard N288.1).

Given these assumptions, the calculated effective doses to members of the public are as follows:

- For an adult → 0.0025 mSv per year
- For a 10-year old child  $\rightarrow$  0.0020 mSv per year
- For a 1-year old infant → 0.0020 mSv per year

In comparison, the limit for effective dose to a member of the public is 1.000 mSv per year, as per Section 13 of the Radiation Protection Regulations.

The calculated effective doses for produce consumption based on these assumptions is well below 0.5% of the regulatory limit.

When all sources of exposure are considered (including produce consumption), the effective doses to members of the public are well below the regulatory limit, and represent an extremely low level of risk. For more information, please consult SRBT's Annual Compliance Report at www.srbt.com.

