

THERAPEUTIC VIRTUE OF MINERAL SPRINGS SUBJECT OF REPORT

*Waters of Caledonia Springs
Described in Mines Branch
Bulletin*

KNOWN FOR HUNDRED YEARS

In the bulletin "The Mineral Springs of Canada," by R. T. Elworthy, B.Sc., issued by the Mines Branch, Department of Mines, there is a description of Caledonia Springs, Prescott County, Ontario, as follows:—

"The waters of Caledonia Springs form one of the best-known groups of springs in Canada. They were known to the settlers in the Ottawa Valley as early as 1806, and well patronized by them. The residents of Montreal and Ottawa also visited them, and had a considerably more arduous journey than their descendants to-day who now reach the springs in an hour and a half from Montreal or Ottawa, travelling in a comfortable train. In those days, visitors from Montreal had to take the train to Lachine, thence by steamer through Lake St. Louis and Lake of Two Mountains to Carillon; again by train to Grenville, where a boat was taken to L'Original. From this place the ten mile journey to the springs was completed by stage. Accounts still exist of the various events of these days, horse races, walking contests, miraculous cures, and hotel fires, and many interesting stories are told.

Altogether, seven separate sources of water exist within a small area, and the eighth, the Duncan Spring, is only two miles away. Of the seven sources, three are flowing springs and four are artesian wells. The three springs, the Saline, the Sulphur and the Gas Springs, lie quite close together, the Sulphur and Saline only a few feet apart. The springs have been the subject of several analyses, dating back from 1843, when they were examined by Dr. James Williamson. Twice Dr. Sterry Hunt made analyses of the waters. In 1847 and in 1865. In 1903-1907 Professor R. F. Ruttan, of McGill University, carried out a careful investigation for the Caledonian Springs Mineral Water Company. They were again analysed as detailed in this report, in 1916.

WATERS ARE SIMILAR.

The chief constituent of all the waters may be considered to be sodium chloride and several of them show considerable similarity in composition. The waters from the springs are of considerable therapeutic value and many cures have been effected by the use of them. An interesting paper was written on the therapeutic properties of Caledonia Springs by Dr. E. S. Harding, B.A., M.D., sometime resident physician and the statements given, concerning the individual waters, are taken from it.

According to Sterry Hunt, they rise from the Trenton limestone formation though he considered that three of the waters at least were formed by the mingling of a concentrated saline water with water containing alkaline carbonate such as would be derived from argillaceous sediments, similar to those composing the Utica and Hudson River formations.

SALINE AND SULPHUR SPRINGS.

The Saline and Sulphur Springs issue only a few feet apart. The sulphur water comes from a fissure in the rock 14 feet down, while the saline water proceeds from the junction of the clay and the rock. In 1915 the outlet of these two springs was cleaned up and white tiled partitions built, so that the two waters are entirely separated.

The saline water is carbonated and bottled and has an extensive sale under the name of "Magi" Caledonia water. It constitutes a very pleasant and at the same time beneficial beverage.

The water may be classified as a sodic, muriated alkaline-saline, water

TENDERS ASKED FOR BY THE DOMINION GOVERNMENT

Firms desirous of tendering for any Government Supplies should apply to the War Purchasing Commission, Booth Building, Ottawa, giving particulars of the business in which they are engaged and a list of the articles they wish to supply.

Tenders are constantly being invited by the different departments of the Government, tender forms and specifications being distributed by mail to all individuals or firms concerned, known to the Commission.

The War Purchasing Commission keeps a register of the different firms and lines of business they are interested in, and it is, therefore, advisable that those wishing to have tender forms sent them should register their names, addresses, catalogues, etc., with the War Purchasing Commission, which co-operates with all other departments.

Tenders have been invited by the different departments of the Dominion Government between August 2 and 8, as follows:—

JUSTICE (PENITENTIARIES BRANCH)—

Articles.	Point of delivery.	Date due.
Fat pork	St. Vincent de Paul	August 7
Sole leather	Kingston	" 12
Oats	"	" 13

SOLDIERS' CIVIL RE-ESTABLISHMENT—

Universal milling machine	Calgary	August 12
Vegetable sink	Kingston	" 13
Hand power elevator	Keith	" 13
Kitchen equipment	St. John	" 13
Electric elevator	Keith	" 14
Hard white felt	Toronto	" 13
Lathes	"	" 15
Surgical supplies	Vancouver	" 18
Lathes, woodworking	Ste. Anne de Bellevue	" 15
Motor	"	" 18
Surgical equipment	Vancouver	" 18
Hand power elevator	St. Agathe	" 18
Yellow horse hide leather	Toronto	" 18

PUBLIC PRINTING AND STATIONERY (STATIONERY BRANCH)—

Buff printing paper	Ottawa	August 14
Cartridge envelope paper	"	" 14
White wove envelope paper	"	" 14
Cardboard trays	"	" 14
Cellboard containers	"	" 11
Index bristol	"	" 18

PUBLIC WORKS, DEPARTMENT OF—

Desks and chairs	Ottawa	August 16
Saddle soap	Ottawa	August 14
Flags, signal, International Code	"	" 18
Hides, brown	"	" 14
X-Ray supplies	Toronto	" 12
X-Ray supplies	Kingston	" 13
Acid, carbolic	Toronto	" 18
Surgical supplies	Winnipeg	" 18
Drugs	Ottawa	" 18
Surgical supplies	Toronto	" 18
Tablets	Ottawa	" 14
Gold, dental	"	" 15
Goggles	"	" 15
Dry cleaning	Victoria	" 14
Dry cleaning	Vancouver	" 14
Flour	Cobourg	" 9
Lemon flavouring	"	" 9
Vanilla flavouring	"	" 9
Bran	Kingston	" 9
Tomatoes, canned	"	" 9
Peas, canned	"	" 9
Corn, canned	"	" 9
Tomatoes, canned	Cobourg	" 9
Rice	Halifax	" 15
Coal	Vancouver	" 22
Coal	Victoria	" 22
Coal	Esquimalt	" 22
Emptying latrines	Levis	" 12
Special groceries	Halifax	" 12
Canned pilchards	London	" 12

SURPLUS STORES—

Water bottles	Due	August 26
Mess tins	"	" 26
Bolt clippers	"	" 26
Woollen undershirts	"	" 14
Woollen underdrawers	"	" 14

(slightly sulphuretted and carbon-dioxated). It contains small amounts of bromides and iodides, which have the larger amounts of magnesium (10.6 per cent) and calcium bicarbonates (2 per cent), and sodium chlorides (83 per cent of the total inorganic matter in solution).

The Sulphur Spring water varies slightly from the Saline water, in holding a large amount of hydrogen sulphide gas in solution, and in containing only four per cent of sodium bicarbonate, giving it a higher alkalinity. It also contains a small amount of mineral matter in solution—6,231 parts per million, as compared with 8,118 parts per million. The analysis shows it to be a sodic, muriated carbonated alkaline-saline water (sulphurated). It

owes its therapeutic properties, in part, to the presence of hydrogen sulphide, and is used largely in the treatment of rheumatism.

THE GAS SPRING.

The Gas Spring is also a sodic, muriated, alkaline-saline water, and closely resembles the Saline water in composition, though the flow is slightly less. Gas is evolved from the water which rises in a circular glass-capped cement well and was found to possess a radio-activity of 306 units.

The relatively high percentage of carbon monoxide may account for the alleged night-mare-giving properties of the water. The therapeutic use of the water is due mostly to the presence of carbonic acid and the bicarbonates, making it of value in gastric conditions.

CONTRACTS AWARDED BY ORDER IN COUNCIL

Pacific Construction Com- pany Awarded \$152,000 Fraser River Contract

The Department of Public Works announces the following contracts awarded under Order in Council:

Half-Moon Bay, Comox-Atlin, B. C.—Construction of wharf. Contractor: Fraser River Pile Driving Co., Ltd., of New Westminster, B.C., at \$5,775. Order in Council dated 1st August, 1919.

Ste. Anne De Beaupre, P.Q.—Wharf repairs and reconstruction. Contractor: Onésime Poliquin, of Portneuf, P.Q., at \$26,201.50 (unit prices). Order in Council dated 1st August, 1919.

Toronto Harbour, Ont.—Eastern Entrance—Reconstruction of portion of East Pier Superstructure. Contractors: The C. S. Boone Dredging and Construction Co., Ltd., of Toronto, Ont., at \$31,095.70 (unit prices). Order in Council dated 1st August, 1919.

Berthier (en bas), P.Q.—Repairs to wharf. Contractor: Nazeaire Letourneau, of Montmagny, P.Q., at \$17,556.80 (unit prices). Order in Council dated 1st August, 1919.

Three Rivers, P.Q.—Dredging in St. Maurice River. Contractors: Simpson Bros. Co., Ltd., of Montreal, P.Q., approximate amount, \$30,480. Order in Council dated 1st August, 1919.

Sidney, Roberts Bay and Saanichton, B.C.—Repairs to wharfs. Contractors: McDonald, Watson & Withers, of Victoria, B.C., at \$10,948.82 (Sidney \$6,393.50, Roberts Bay \$3,377.24 and Saanichton \$1,178.08). Order in Council dated 2nd August, 1919.

North Arm of Fraser River, B.C.—Dredging. Contractors: The Pacific Construction Co., Ltd., of Vancouver, B.C., approximate amount \$152,000. Order in Council dated 2nd August, 1919.

Tender for Amherst.

Separate sealed tenders addressed to the undersigned, and endorsed "Tender for Grading, Pavement, Sidewalks, etc., etc., Drill Hall, Amherst, N.S.," as the case may be, will be received until 12 o'clock noon Friday, August 15, 1919, for the construction of (1) grading, pavement, sidewalks, etc., (2) water-proofing basement walls, (3) mastic floor, Drill Hall, Amherst, N.S.

Plans and specification can be seen and forms of tender obtained at the office of the Chief Architect, Department of Public Works, Ottawa, the Caretaker, Public Building, Amherst, N.S., the Superintendent of Dominion Buildings, St. John, N.B., and the Inspector of Dominion Buildings, Halifax, N.S.

Tenders will not be considered unless made on the forms supplied by the Department and in accordance with the conditions set forth therein.

Each tender must be accompanied by an accepted cheque on a chartered bank payable to the order of the Minister of Public Works equal to 10 p.c. of the amount of the tender. War Loan Bonds of the Dominion will also be accepted as security, or war bonds and cheques if required to make up an odd amount.

By order,

R. C. DESROCHERS,

Secretary.

Department of Public Works,
Ottawa, August 2, 1919.

Buy War Savings Stamps.