

Chats Falls Seismograph Operation  
Quarterly Report - July 1, 1978

prepared for

Geotechnical Engineering Dept.  
Ontario Hydro

by

S. Mercure

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## Introduction

This April-June quarterly report comments on the choice of a new site for the seismic station (CFO). Furthermore, it lists events close to CFO ( 30 km) and those earthquakes in the region that have been located by EPB using CFO and other stations of the Canadian seismograph network.

## New Station Site

Since the present seismic station location suffers much from vibration noise induced in the ground by the generating station while running full efficiency, it was deemed advantageous to look for a quieter site at a time where plans were worked out to convert CFO into a telemetered station with data telemetered to the EPB data laboratory in Ottawa. To this end, site testing was carried out at eight locations on the Ontario Hydro property (see Figure 1). After analysing record samples, it was decided that location 2 would best fulfill our requirements:

## Local Seismicity ( 30 km)

Among all close events detected during the April-June period, only one remains unexplained after close examination; all the others are associated with blasts located either at Ottawa quarries or around Arnprior. The unexplained event, (shown on figure 2) which is found only on CFO, occurred on June 11, 1978 at 07:47:36. That is a sunday morning at 03:47:36 E.D.T. With a S-P interval of 1.1 sec., the radial distance from CFO is estimated at 9.2 km. Figure 3 shows a circle whose radius is 9.2 km centered on CFO.

## Regional Seismicity

Following is a list of regional events located in the area confined between  $74^{\circ}$  and  $78^{\circ}$  W. and between  $44^{\circ}$  and

47°N. These seismic events were detected through the Canadian Seismograph Network over the last three months of 1977.

<u>Date</u>	<u>H-Time</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Mag (MN)</u>	<u>Location</u>
Nov. 07/77	20:48:52	46.29	75.21	3.0	Nominingue, P.Q.
Nov. 25/77	18:47:22	46.74	76.36	3.0	N.W. of Maniwaki, P.Q.

Map 1 shows location of the earthquakes listed above in addition to all those occurring in 1977.

Figure 1: The Ontario-Hydro Property is shown in green.  
 In addition, the numbers, 1 to 8, represent the various sites tested.





Figure 2. Trace of the unexplained event that occurred on June 11, 1978 at 07:47:36 U.T.





Figure 3. Circle indicates all the possible locations for the June 11, 1978 unexplained event.

MAP 1. REGIONAL SEISMICITY AROUND CHATE FALLES IN 1977.

