Nova Scotia Minerals Update Spring 2007

From The Mineral Inventory Files

More Barite at Middle Stewiacke?

A small deposit of very white barite (BaSO₄) that may have the potential to supply one of several niche markets for this mineral is found near Middle Stewiacke, Colchester County (Fig. 1). The deposit is accessible by travelling 700 m north along a woods road from Highway #289, from a point 3.4 km west of the main intersection in the village of Middle Stewiacke. First mention of barite at this location was in H. How's The mineralogy of Nova Scotia, a report for the provincial government in 1869. At that time, 1,200 tons of barite were removed via a 12 m deep shaft. The property was inactive until the 1890s when an open cut was excavated (Fig. 1) and a small quantity of barite was removed. The effort produced very bright white barite suitable for manufacturing paint. Only the most pure barite was shipped, while the remaining off-white barite was discarded on site. This explains the abundance of crystalline, white-grey barite remaining (Fig. 1).

The property was abandoned shortly after the activity in the 1890s and remained inactive until 1945 when Maritime Exploration Limited determined by prospecting that barite float is found up to 2 km to the west of the old open cut. It is possible that the float may actually be debris that fell from transport wagons during the old mining operation, but this has never been resolved.

Diamond-drilling from 1945 to 1948 showed that the rocks hosting the barite are faulted, and that faults played a key role in formation of the barite deposit. The host rock for most of the barite is massive limestone and fragmental limestone of the Early Carboniferous Macumber Formation (basal unit of the Windsor Group) near its faulted contact with Horton Group sandstone and conglomerate. Barite occurs as vein-like pods and lenses of massive white barite in the order of 5 m long by 1 m thick replacing the host limestone. The barite is mostly white or off-white, but grey, orange, brownish and translucent varieties also occur. Associated minerals include

hematite, limonite, graphite and veins of red and green calcite. Although the style of mineralization suggests a potential for base-metal sulphides, no significant sulphides were observed in bedrock, diamond-drill core or the extensive float covering the area.

Visitors to the property will be impressed by the quantity and quality of barite in plain sight. If this is reject ore, then the ore that was shipped from the site must truly have been high quality.

Most of the modern exploration attention at this property was concerned with its base metal potential while its potential as a source of high quality barite is defined solely by the late 19th century work done there. It is entirely possible that a deposit of high quality, pharmaceutical grade barite lies there waiting for those willing to expend the time and resources to locate and develop it.

G. A. O'Reilly

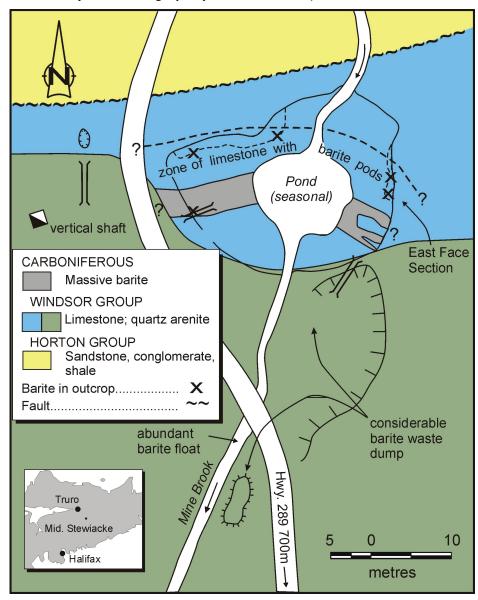


Figure 1. Local geology of the former Middle Stewiacke barite mine.