

# HM 6 THE GALENA LEAD AND ZINC MINE HERITAGE MODULE

## CONSTRUCTION SPECIFICATIONS

This superbly-detailed module has been constructed as a diorama to represent this working mine on Lot 21, Concession A of Galway Township in Peterborough County.

This module is an accurate reproduction of the prototype in 1:87 (HO) scale. The buildings and structures have been partly “scratchbuilt” from component materials, and partly “kitbashed” (created from parts of kits). The components are mainly styrene, wood, drywall compound, pre-printed paper, basswood, balsawood, matte and cardboard with prepared windows and doors by Grandt Line®.

The scenery has been created from layered carved styroboard with a basic latex paint application. The greenery is by Woodland Scenics®. The tree trunks are created from natural plants, pre-formed trunks or carved from basswood, and the tree stumps are carved from trimmed dowels. The water effect is created with acrylic varnish. The road vehicles and figures are by various manufacturers and hand-painted as required. The backdrop is hand-painted. The mine cage and mine car are both operable.

## THE MINE

This galena lead and zinc mine was one of many small early exploratory mines on the lower edge of the Canadian Shield that operated from the late 1800s into the early 1900s in Peterborough, Haliburton and Hastings Counties. Most of them proved to have shallow deposits and became exhausted at varying times relatively soon after their opening. This mine is believed to have existed from about 1890 until about 1920.

Its exact location was on Galena Hill just east of the junction of County Road 49 (from Bobcaygeon to Hwy 121) and Hwy 121 (from Fenelon Falls to Kinmount). Very few traces of it remain today (but the mine shaft is still there, so anyone doing any exploring should be very careful). Accordingly, for the construction of this diorama, local research was necessary with only one contemporary picture. A little licence has been taken with the composition of the diorama, but the essentials of the mine as it was when it was working are all there, and the diorama accurately portrays its operation. The minerals would be transported from the underground “face” to the mine shaft, likely by means of a crude wagon, hauled to the top in the mine cage, wheeled over to the crusher, smashed for transportation and teamed to the railway siding at Burnt River, about 3 miles away.



## THE MINERALS

Galena is a lustrous, blue-gray mineral crystallizing usually in cubes. It is the most important ore and the principal source of lead (Pb). It consists of lead sulfide (PbS), but frequently contains silver (Ag) and other accessory metals such as zinc (Zn) and cadmium (Cd). It is mined for silver in some localities. Galena is widely distributed throughout the world, occurring in veins and in bedded deposits in Missouri, Idaho, Iowa, Wisconsin, and Utah in the United States (leading producer of lead) and in Australia, Canada, England, France, and Mexico. Galena is a semi-conductor which found use in early wireless communication systems. For example, it was used as the crystal in crystal radio sets, in which it was used as a point-contact to detect radio signals by means of a sharp wire, which was known as a “cat’s whisker”. Such wireless sets were a popular home hobby in the 1930s.



## NUMBERED STRUCTURES

1 Crusher	2 Mine shaft and cage (lift)	3 Cookhouse	4 Water tank
5 Boiler house, for steam power to operate the cage	6 Workers’ cottages	7 Shack	8 bunkhouse