

ore bodies in the region. By creating shaded relief maps and inverting potential field data from magnetic and gravity data, coupled with limited prior knowledge of the geology of the area, it will be possible to create a geological model of the area in question.

The gravity and magnetic data was collected at Voisey's Bay during ground and airborne surveys. Traditional interpretation techniques will be employed, such as filtering, to investigate regional trends, then 3-D inversion to provide a 3-D model of the sub-surface. Shaded relief map showing the ground magnetic and gravity data can also be created. Inversion programs will be used to create models of the subsurface from this data, where because of the nonuniqueness of potential fields, some information of the surrounding geology can be used to create an appropriate model with more meaningful geological results.

**Inversion of regional gravity and magnetic
data from Voisey's Bay**

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The purpose of this study is to investigate the regional geology of the main ore bodies over the Voisey's Bay Nickel-Copper-Cobalt deposit in Labrador, Canada. Techniques employed include 3-D inversion of gravity and magnetic data as the primary tool to study the regional geology of Voisey's Bay ore bodies. The deposit is contained in the Nain Plutonic Suite, which is composed of granitic, anorthositic, ferrodioritic, and troctolitic intrusions. The purpose of this study is to interpret magnetic and gravity data to investigate the regional structural geology to aid in the geological model of the formation of the Voisey's Bay ore bodies and to further aid exploration for other