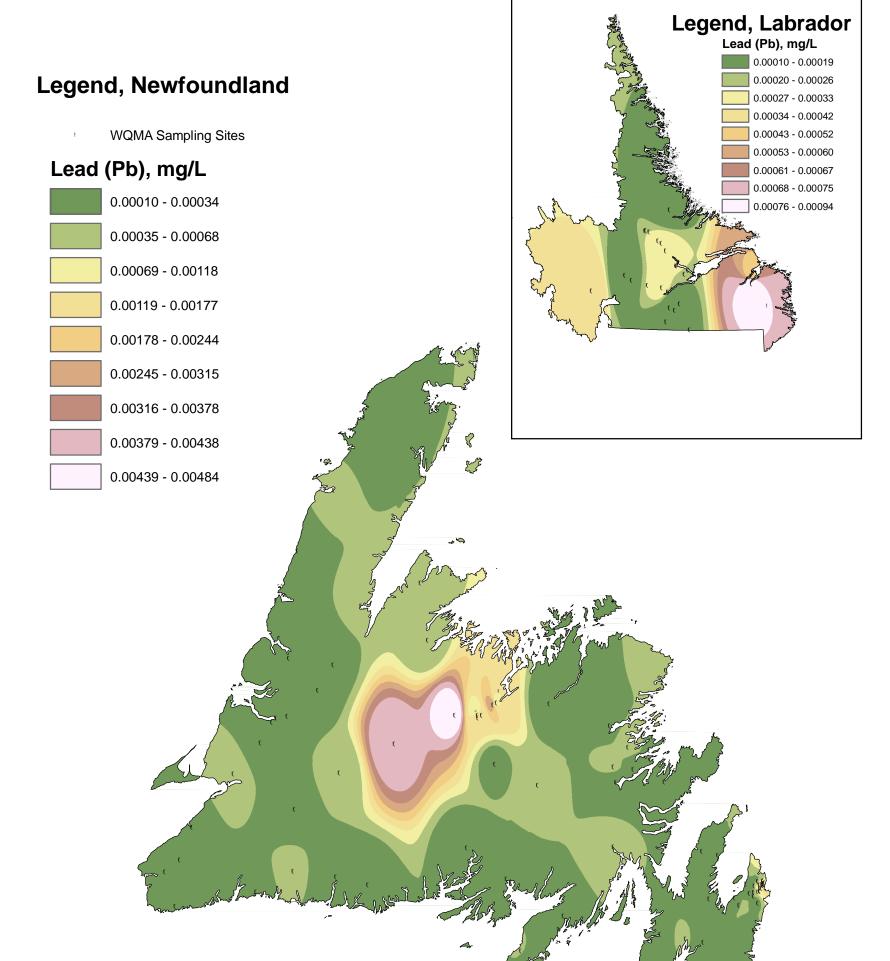
Lead Contours Based on Canada-Newfoundland Water Quality Monitoring Agreement Data





A contour map displays regions, each of which represents a constant value for a particular parameter. These regions are approximations based on average recorded values at WQMA sites for all data collected between 1985-2000. The contour regions were estimated using a geostatistical approach known as Inverse Distance Weight (IDW), with a power of 5. The maps will be updated for every five years of new water quality data collected. Values are compared against the Canadian Council of Ministers of the Environment Water Quality Guidelines for the Protection of Aquatic Life.

Lead is usually found in urban runoff, and in areas where mining occurs. The lead guideline for the Protection of Aquatic Life is 0.001-0.007 mg/L. The guideline value is represented by a range because lead is dependent on the presence of other water quality parameters such as hardness (the concentration of CaCO3), and needs to be adjusted for site specific conditions. Acid mine drainage also produces lead, and it can be transported atmospherically. There are localized areas in the province that do exceed the more conservative 0.001 mg/L guideline.



Sovernment of Newfoundland and Labrador Department of Environment and Conservation Water Resources Management Division



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