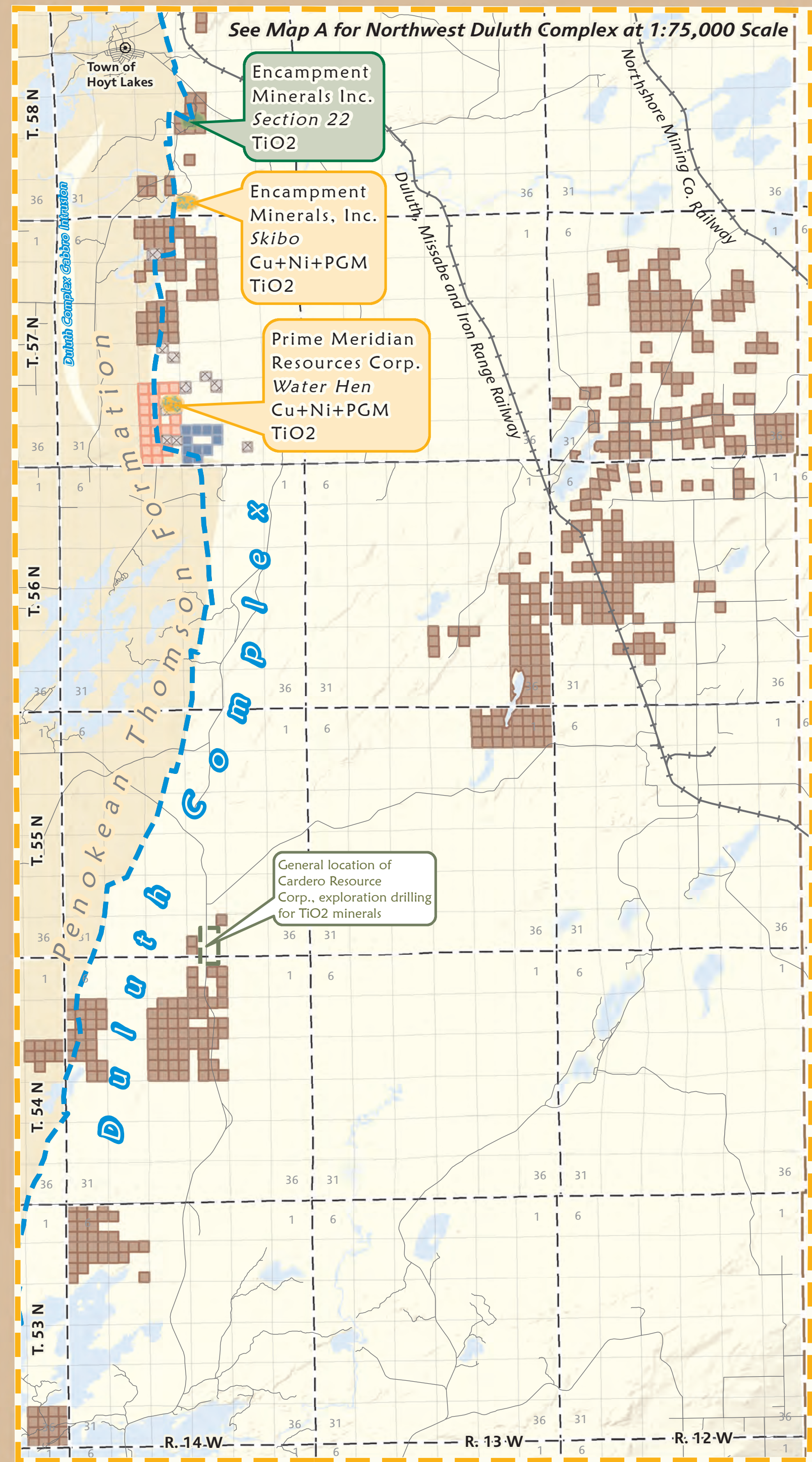
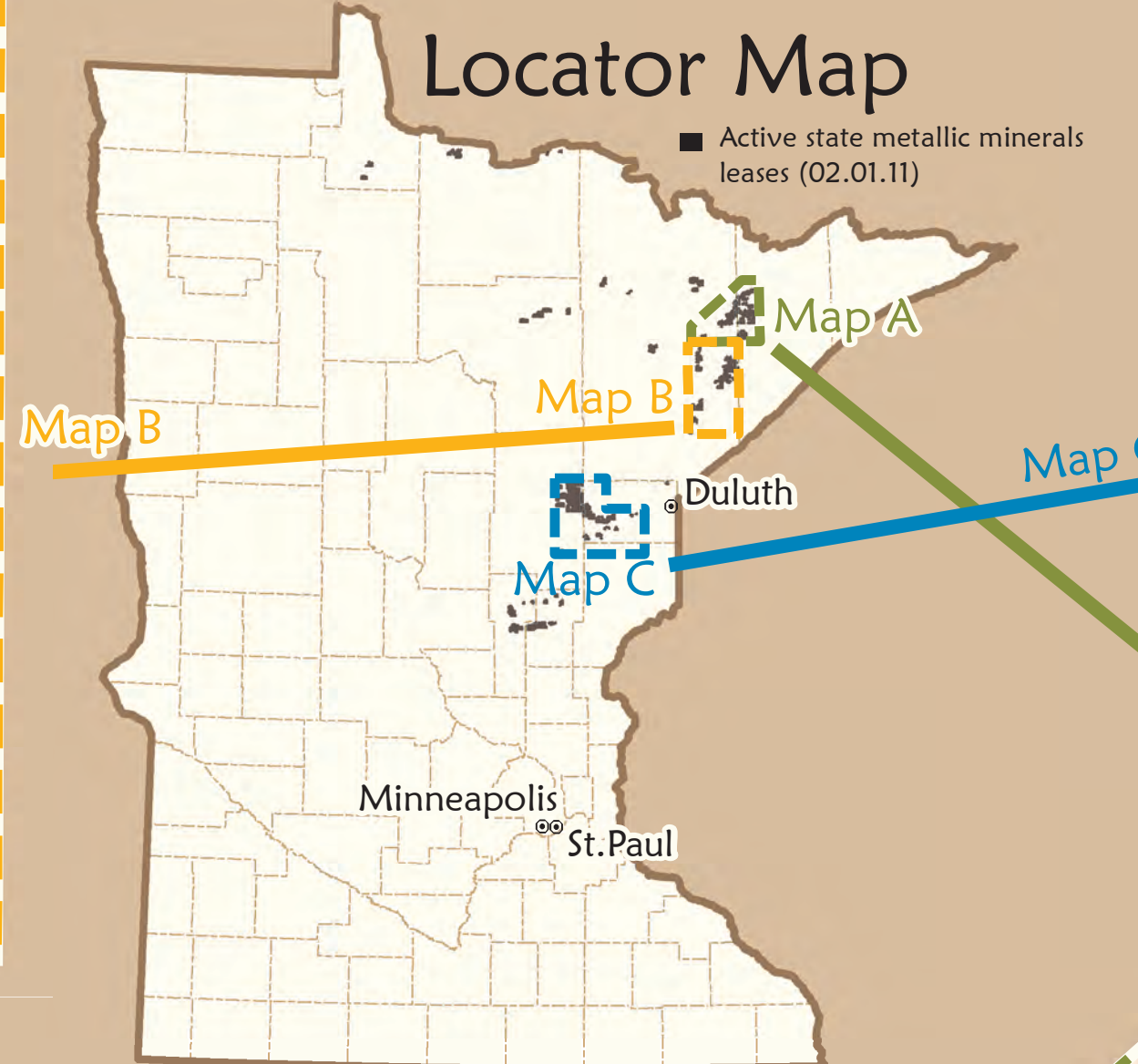
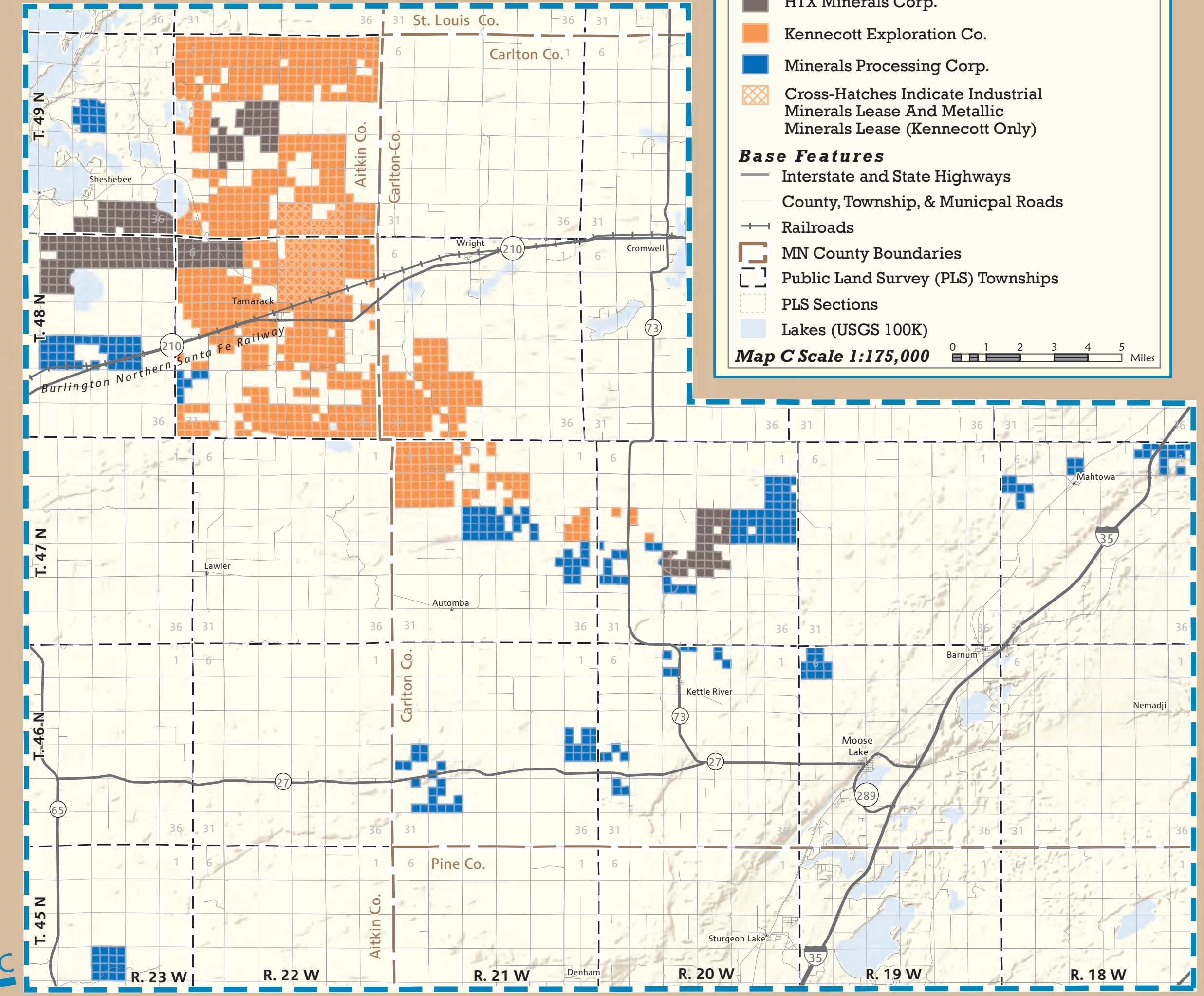


# Minnesota Cu+Ni+PGM, TiO<sub>2</sub> Deposits, and Active State Metallic Minerals Leases

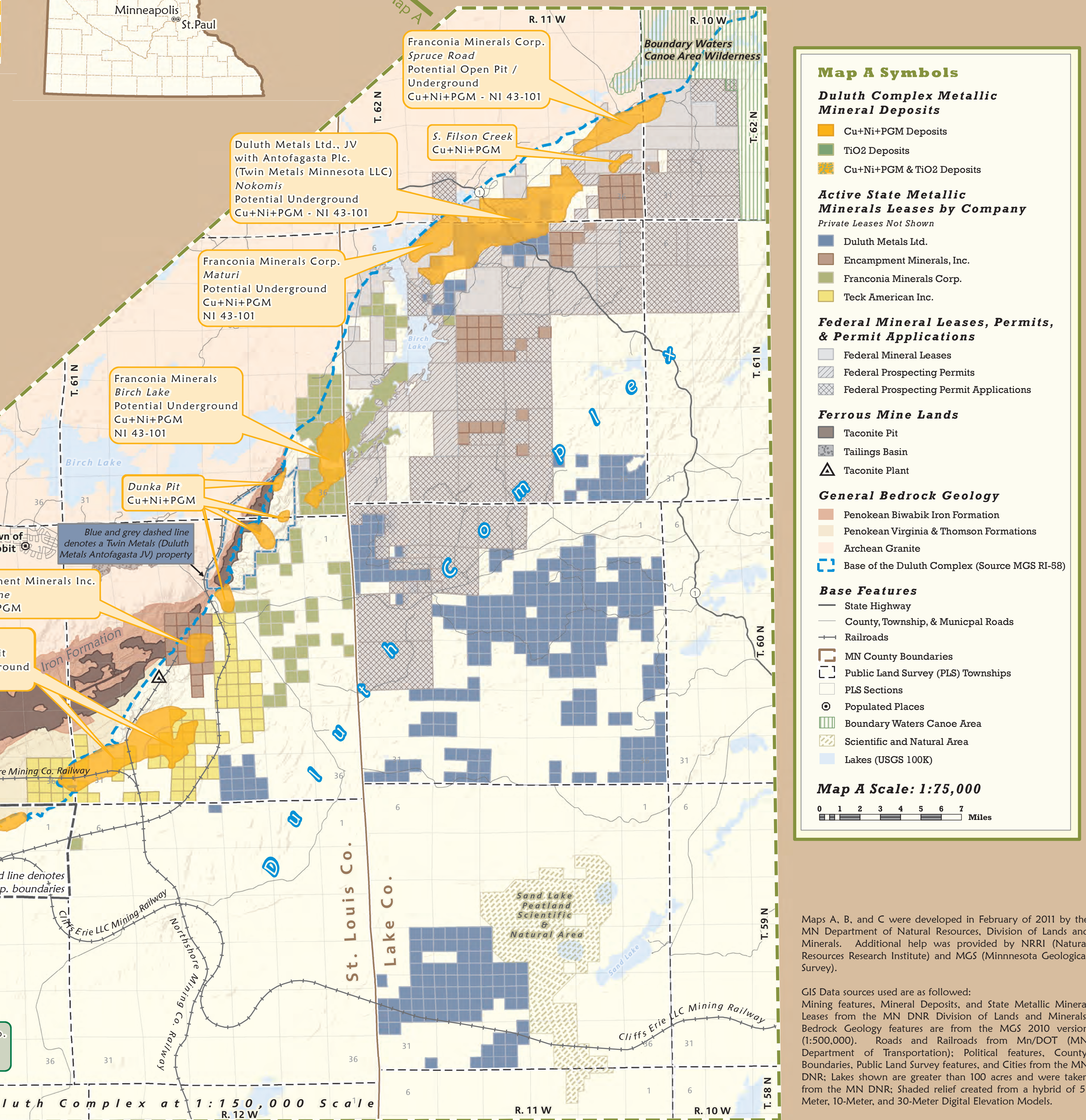
**Map B: Southwest Duluth Complex: TiO<sub>2</sub> Deposits and Active State Mineral Leases**



**Map C: State Metallic Mineral Leases**

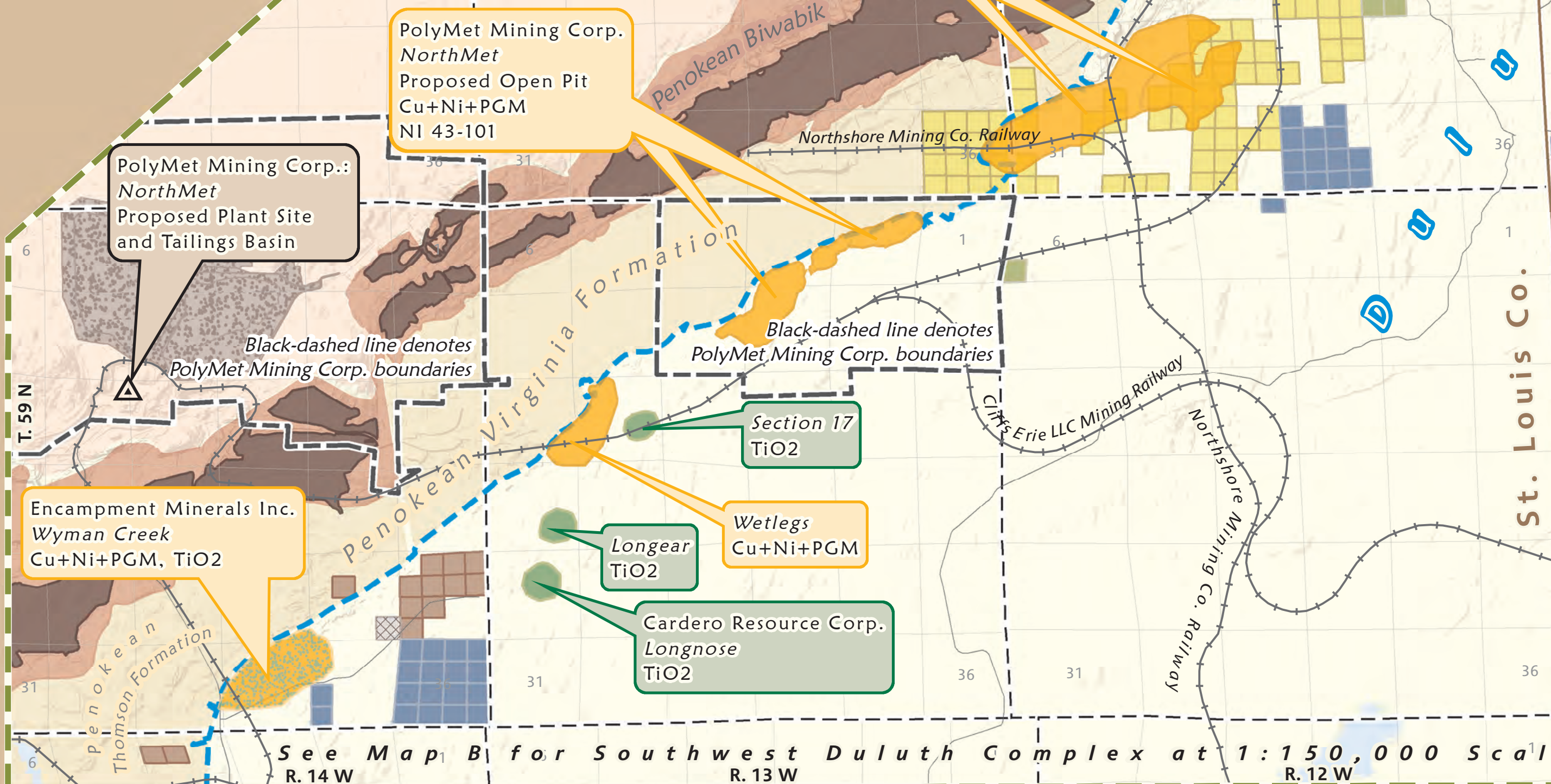


**Map A: Northwest Duluth Complex: Cu+Ni+PGM and TiO<sub>2</sub> Deposits and Active State Mineral Leases**



## Minnesota's Copper+Nickel+PGM and TiO<sub>2</sub> Mineral Resources

There are more than 4 billion tons of copper+nickel+PGM resources within many deposits along ~40 miles of the edge of the Duluth Complex near Babbitt, MN. This graphic shows the locations of the deposits, the state mineral leases held by six companies and notes where resource estimates [NI 43-101 compliant] were completed. Polymet is the first company to propose a mine in this district, and the environmental review process is in progress. Kennecott's Copper-Nickel-PGM discovery at Tamarack (shown in map C above) is located along the west flank of the Midcontinent Rift and approximately 100 miles southwest of the basal Duluth Complex deposits.



Maps A, B, and C were developed in February of 2011 by the MN Department of Natural Resources, Division of Lands and Minerals. Additional help was provided by NRRI (Natural Resources Research Institute) and MGS (Minnesota Geological Survey).

GIS Data sources used are as follows:  
Mining features, Mineral Deposits, and State Metallic Mineral Leases from the MN DNR Division of Lands and Minerals. Bedrock Geology features are from the MGS 2010 version (1:500,000). Roads and Railroads from Mn/DOT (MN Department of Transportation); Political features, County Boundaries, Public Land Survey features, and Cities from the MN DNR; Lakes shown are greater than 100 acres and were taken from the MN DNR; Shaded relief created from a hybrid of 5-Meter, 10-Meter, and 30-Meter Digital Elevation Models.