



Maine Geological Survey
Department of Agriculture, Conservation, and Forestry

Metallic Mineral Deposits of Maine



★ Significant deposits

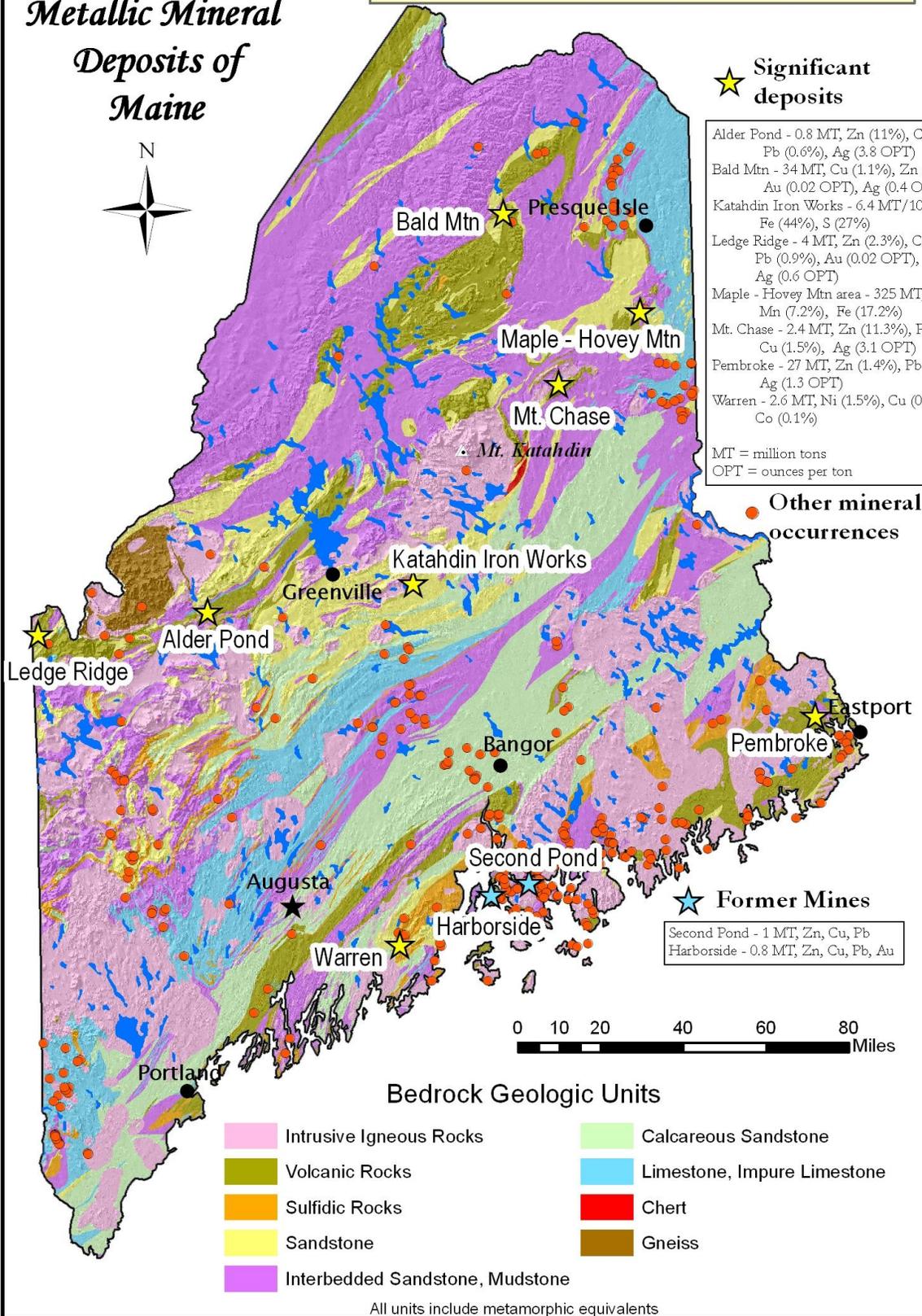
Alder Pond	- 0.8 MT, Zn (11%), Cu (2.5%), Pb (0.6%), Ag (3.8 OPT)
Bald Mtn	- 34 MT, Cu (1.1%), Zn (1.0%), Au (0.02 OPT), Ag (0.4 OPT)
Katahdin Iron Works	- 6.4 MT/100 ft, Fe (44%), S (27%)
Ledge Ridge	- 4 MT, Zn (2.3%), Cu (1.0%), Pb (0.9%), Au (0.02 OPT), Ag (0.6 OPT)
Maple - Hovey Mtn area	- 325 MT, Mn (7.2%), Fe (17.2%)
Mt. Chase	- 2.4 MT, Zn (11.3%), Pb (4.8%), Cu (1.5%), Ag (3.1 OPT)
Pembroke	- 27 MT, Zn (1.4%), Pb (0.4%), Ag (1.3 OPT)
Warren	- 2.6 MT, Ni (1.5%), Cu (0.7%), Co (0.1%)

MT = million tons
OPT = ounces per ton

● Other mineral occurrences

★ Former Mines

Second Pond	- 1 MT, Zn, Cu, Pb
Harborside	- 0.8 MT, Zn, Cu, Pb, Au



Bedrock Geologic Units

 Intrusive Igneous Rocks	 Calcareous Sandstone
 Volcanic Rocks	 Limestone, Impure Limestone
 Sulfidic Rocks	 Chert
 Sandstone	 Gneiss
 Interbedded Sandstone, Mudstone	

All units include metamorphic equivalents

Significant Known Metallic Mineral Deposits in Maine including approximate tonnage and grade¹

Northern Maine belt *(in alphabetical order)*

- *Alder Pond - 3.4 MT massive sulfide, of which 0.8 MT grades 2-3% copper, 9-17% zinc, 0.5-1.0% lead, and 3-6 oz/ton silver. Advanced exploration permit issued by DEP to BHP mining in late 1980s for underground decline. BHP did not pursue mining operation. There is a current exploration lease. (Lower Enchanted Twp, Somerset Co.)
- Bald Mountain - 33.8 MT total, including 30 MT massive sulfide, 2.4 MT copper-rich supergene zone and 1.4 MT gold-rich gossan cap. Average grade of massive body 1% copper, 1% zinc, 0.02 oz/ton gold, 0.4 oz/ton silver. Drilled extensively in 1980's, with over 400 holes. Mining application submitted in 1997 under 1991 rules; withdrawn by applicant, citing low metal prices. (T12R8 WELS, Aroostook Co.)
- Katahdin Iron Works (or Ore Mountain) - 6.4 MT per 100 feet depth (extent unknown); massive iron sulfide with gossan. 44% iron; Cu, Ni, Co less than 0.5%. Historical surface mining of gossan in 1800's. (Katahdin Iron Works Twp, Piscataquis Co.)
- Ledge Ridge - 4 MT massive sulfide, grading 2% zinc, 1% copper, 1% lead, 0.02 oz/ton gold, and 0.6 oz/ton silver. (Parmachenee Twp, Oxford Co.)
- Maple-Hovey deposits - 325 MT, stratabound ore grading 7.2% manganese and 17.2% iron. Not a sulfide ore. Extensive investigation by U.S. Bureau of Mines and U.S. Geological Survey in 1950's-60's. (across several townships, eastern Aroostook Co.)
- Mount Chase - 2.4 MT massive sulfide, grading 11% zinc, 5% lead, 1.5% copper, and 3 oz/ton silver. (T6R6 WELS, Penobscot Co.)

Coastal Maine belt

- *Harborside (or Callahan Mine) - 0.8 MT of massive sulfide ore mined in 1968-72, averaging 5.5% zinc, 1.3% copper, 0.5% lead, and 0.5 oz/ton silver. Mine closed in 1972 according to existing laws and current best practices. Now listed as Superfund site, with State of Maine as one of the responsible parties. (Brooksville, Hancock Co.)
- Pembroke - 27 MT massive sulfide, grading 1% zinc, 0.4% lead, and 1 oz/ton silver. Historical surface mine for lead in early 1900's at Big Hill. Further exploration, including geophysical surveys and drilling was done in 2007-2008. (Pembroke, Washington Co.)
- *Second Pond (or Blue Hill Mine) - 1 MT of massive sulfide ore mined in 1972-1977, averaging 6.9% zinc and 0.9% copper with minor lead and silver. Reserves of about 1.4 MT at 8% zinc remain at depth. (Blue Hill, Hancock Co.)
- Warren - 2.6 MT massive sulfide, grading 1.5% nickel, 0.7% copper, 0.1% cobalt. A mining proposal in the late 1980's was withdrawn after passage of local town ordinance. (Warren, Knox Co.)

* Asterisk indicates a deposit partly on State-owned land. Others are privately-owned.

¹ *Disclaimer: This document contains historical information from various sources. This information does not comply with Canadian National Instrument NI 43-101 disclosure standards for resource or reserve estimates.*