



Minnesota Department of Natural Resources (DNR)

Minerals Exploration Plan on State Nonferrous Metallic Minerals Lease

*Twin Metals Minnesota LLC
Exploration Plan submitted on 12/01/2015*

DNR Summary Report and Associated Maps

The exploration plan was submitted by Twin Metals Minnesota on December 1st, 2015 and summarized here by the DNR on December 7th, 2015. The locations of proposed exploration activities by this state nonferrous metallic minerals lessee are shown in a standard format and legend. Report and associated maps by Minnesota DNR, Lands and Minerals Division.

This report and associated maps are posted on the DNR's exploration plan website at:
http://www.dnr.state.mn.us/lands_minerals/metallic_nf/regulations.html

This summary report and associated maps should be distributed as a complete document due to the relative nature of the content.

Minerals Exploration Plan on State Nonferrous Metallic Mineral Lease

Twin Metals Minnesota Exploration Plan Summarized by DNR

December 1, 2015

Narrative: Twin Metals Minnesota, (Explorer) proposes doing down-the-hole geophysical and hydrogeological tests at one pre-existing temporarily sealed drill hole (exploratory boring). The drill hole occurs on a state nonferrous metallic minerals lease in Lake County east of Babbitt and south of Ely, Minnesota. The explorer will open the previously used access routes and drill pad to allow trucks and equipment access to the site. No new trails are proposed. The tests inside the boring could take a number of days. The work may begin shortly after all approvals are received.

State Minerals Lease Number: MM-9764-N

Public Land Survey Location: Section 4, Township 61 North, Range 11 West

Types of exploration activity: Down-the-hole geophysics and down-the-hole hydrogeological testing.

Expected time period of activity: From approximately 10 days after receiving all approvals to up to 12 months. The tests inside the boring could take a number of days.

Plans to access exploration site: No new access trails are proposed. Explorer will use existing access roads and trails.

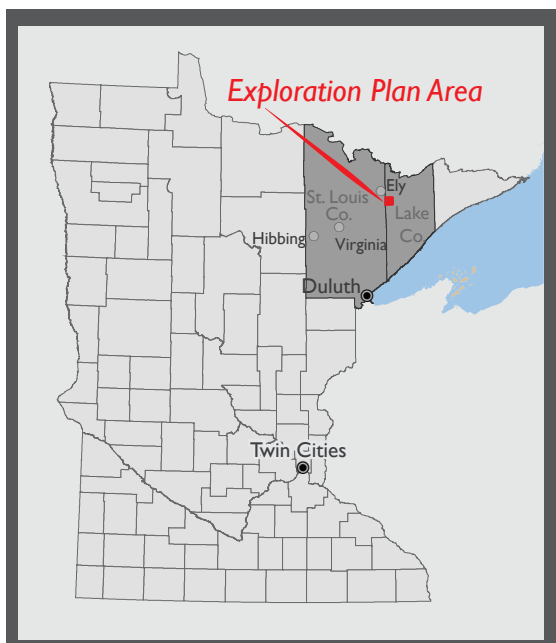
Surface Ownership: State of Minnesota owns the surface.

Explorer contact: Kevin Boerst and Neil Smith, Twin Metals Minnesota, (218) 365-3306

End report section

Start maps section

Locator map for exploration plan activity



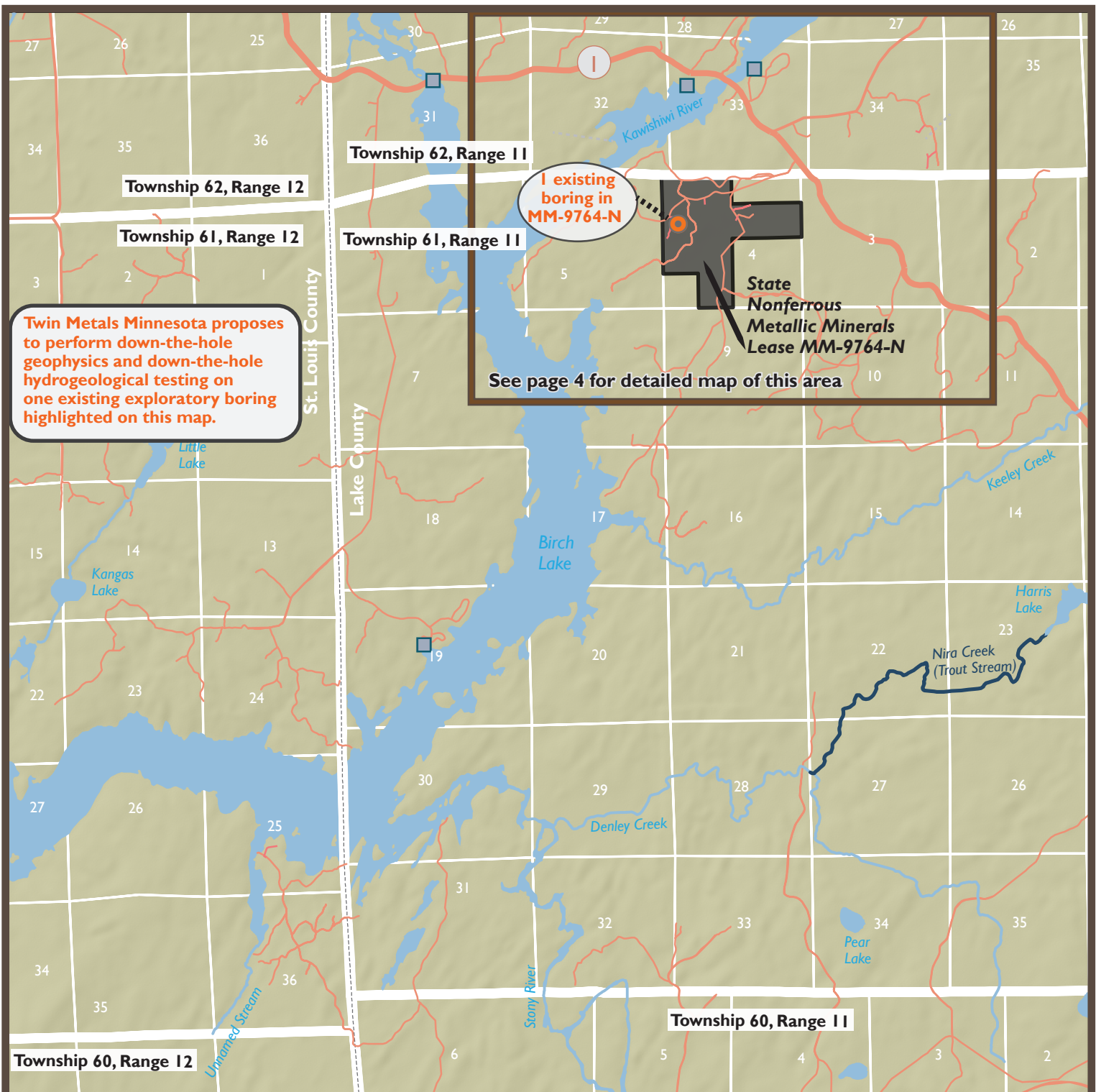
Exploration Plan Area

This small scale map displays the general location of the exploration plan relative to other cities in northern Minnesota. The following two maps provide more details on the exploration areas including general locations of the drill hole, active state mineral lease, public land survey locations, cities, water bodies, and special features.

See pages 3-4 for detailed maps

Maps and Data Disclaimer







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DNR Summary Overview Map of Exploration Plan Submitted by Twin Metals on December 1, 2015

Narrative: Twin Metals Minnesota, (Explorer) proposes doing down-the-hole geophysical and hydrogeological tests at one pre-existing temporarily sealed drill hole (exploratory boring). The drill hole occurs on a state nonferrous metallic minerals lease in Lake County east of Babbitt and south of Ely, Minnesota. The explorer will open the previously used access routes and drill pad to allow trucks and equipment access to the site. No new trails are proposed. The tests inside the boring could take a number of days. The work may begin shortly after all approvals are received.

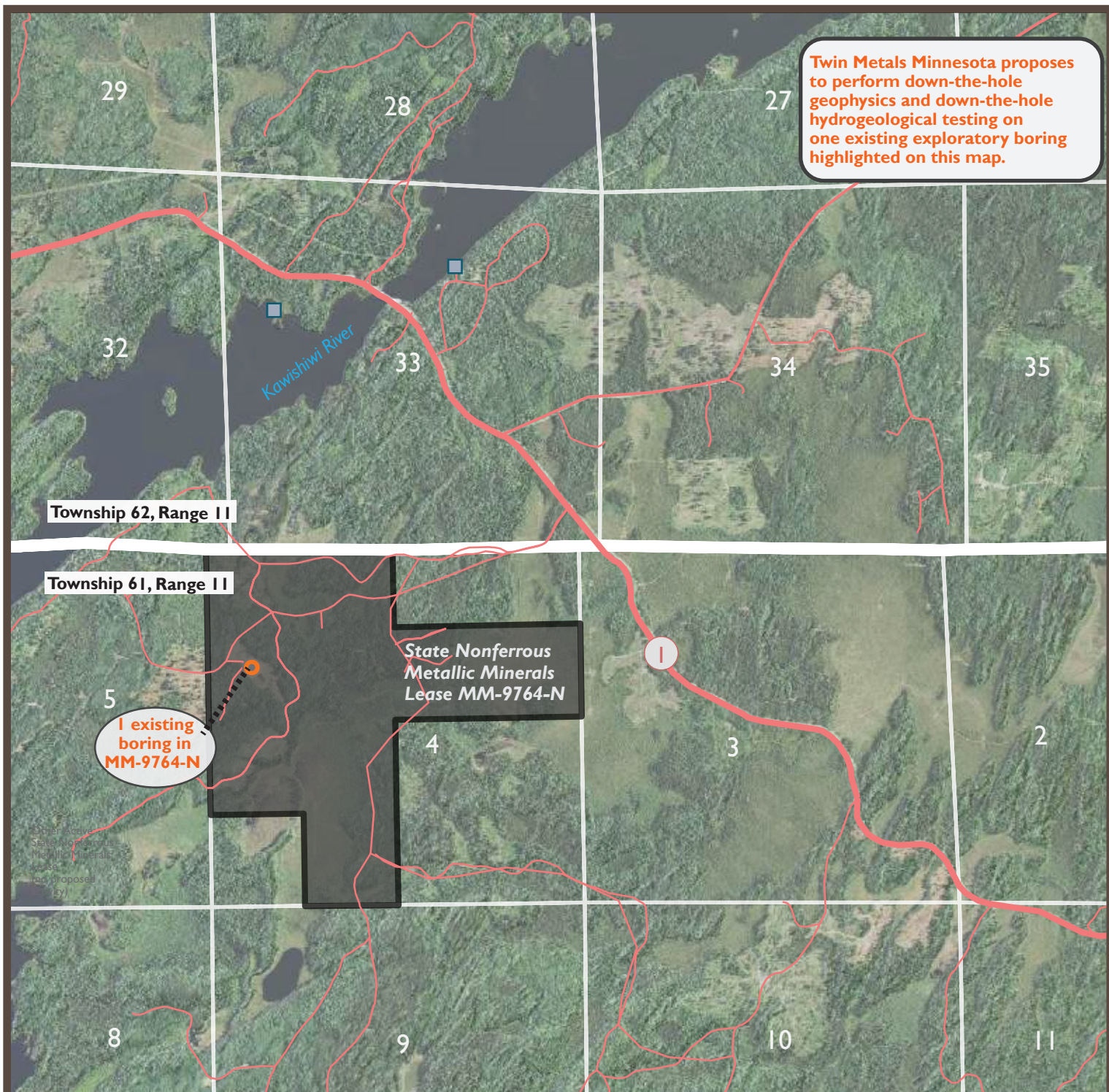
Surface Ownership: State of Minnesota owns the surface in the proposed exploration area.

-  Proposal to perform down-the-hole geophysics and down-the-hole hydrogeological testing on one existing exploratory boring.
-  Active state minerals lease with proposed exploration activity in this plan. Lease identification number labeled on the map (ex. MM-9764-N).
-  Existing access roads and trails to exploratory boring site.
-  Water features
-  Designated Trout Streams are Special Features
-  Public Water Access Sites are Special Features

Natural Heritage Features and Historic & Archaeologic Sites are not shown because they are non-public data. Roads from MnDOT with additional access trails for the proposed areas from Twin Metals Minnesota.

Scale 1:63,360

0 0.5 1 2 Miles



DNR Summary Detailed Map of Exploration Plan Submitted by Twin Metals on December 1, 2015

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Surface Ownership: State of Minnesota owns the surface in the proposed exploration area.

- Proposal to perform down-the-hole geophysics and down-the-hole hydrogeological testing at one existing exploratory boring.
- Active state minerals lease with proposed exploration activity in this plan. Lease identification numbers labeled on the map (ex. MM-9764-N).
- Existing access roads and trails to exploratory boring sites.
- Public Water Access Sites are Special Features

Natural Heritage Features and Historic & Archaeologic Sites are not shown because they are non-public data. Roads from MnDOT with additional access trails for the proposed areas from Twin Metals Minnesota.

Scale 1:24,000