

## MINERAL RESOURCES, METALLOGENESIS, AND TECTONICS OF NORTHEAST ASIA

### Project Summary, Publication List, and Web Sites

**INTRODUCTION.** A six-year project is being conducted by the U.S. Geological Survey and collaborating resource agencies to provide a critical data base and companion geologic information on the Mineral Resources, Metallogensis, and Tectonics of Northeast Asia. Data from the project is benefiting participants and customers by: (1) providing a comprehensive international data base on the mineral resources of the region that will be the first, extensive knowledge available in English; (2) providing major new interpretations of the origin and crustal evolution of mineralizing systems and their host rocks, thereby enabling enhanced, broad-scale metallogenic and tectonic reconstructions; and (3) promoting trade and scientific and technical exchanges between North America and Eastern Asia.

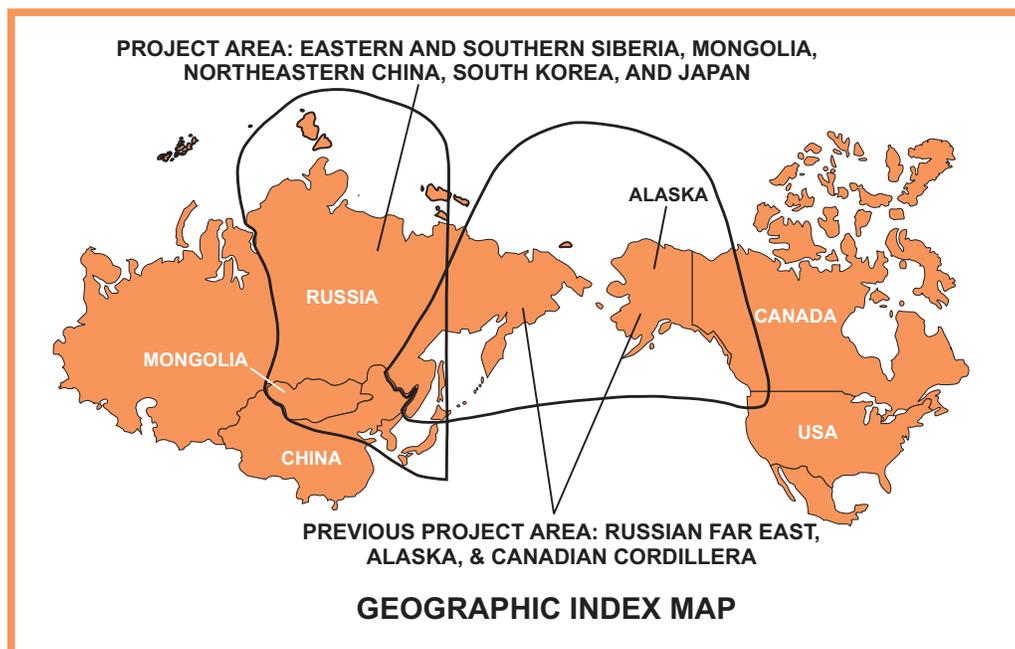
**COLLABORATING AGENCIES.** The collaborating agencies for the project are the Russian Academy of Sciences, Academy of Sciences of the Sakha Republic (Yakutia), VNIIOkeangeologia and Ministry of Natural Resources of the Russian Federation, Yakutian Academy of Sciences, Mongolian Academy of Sciences, Mongolian University of Science and Technology, Mongolian National University, Jilin University, Changchun, China, the China Geological Survey, the Korea Institute of Geosciences and Mineral Resources, the Geological Survey of Japan/AIST, University of Texas Arlington, and the U.S. Geological Survey. Western supporters are the Colorado School of Mines, Stanford University, University of Alaska Fairbanks,

University of Pittsburgh, the Alaska Miners Association, the Northwest Mining Association, and the Society of Economic Geologists.

**CUSTOMERS.** This project is providing vital data for a wide variety of customers for making sound economic planning and investment decisions and for increasing their geologic knowledge of this region. These customers include: (1) major mining, petroleum, environmental, construction, investment, and information companies; (2) federal and state government agencies in all countries; (3) professional organizations; (4) earth science departments at major universities; and (5) news media. A major international customer is the Commerce Working Group of the Russian-U.S.A. Commission.

**STUDY AREA.** The project study area consists of Eastern and Southern Siberia, Mongolia, Northeastern China, South Korea, Japan, and adjacent offshore areas (below figure). This area is approximately bounded by 30 to 82 N. latitude and 75 to 144 E. longitude.

**PREVIOUS PROJECT.** The project extends and build on data and interpretations from a previous project on the Major Mineral Deposits, Metallogensis, and Tectonics of the Russian Far East, Alaska, and the Canadian Cordillera (below figure) that is being completed by the U.S.G.S., the Russian Academy of Sciences, the Alaska Division of Geological and Geophysical Surveys, and the Geological Survey of Canada.





## PRODUCTS

Products for the project include: (a) detailed mineral resource tables and location maps with data on about 1,600 lode deposits and 75 placer districts for the project area, based on original, cited references; (b) regional geodynamics maps and detailed explanations that will provide the geologic setting for mineral deposits and metallogenic belts; (c) mineral deposit location and metallogenic belt maps; and (d) metallogenic and tectonic interpretations, including a four-dimensional time-space model depicting the crustal origin and evolution of mineral deposits and host rocks. Preliminary versions of geodynamics maps and mineral resource data are being published for benefit of customers. Publications are being released in both paper format (USGS publications and scientific journals), and digital format (floppy disk, CD-ROM, and Internet/Web). Geodynamics maps, and mineral resource data and maps are being compiled and published as GIS spatial data. The various resource tables, maps, and interpretative materials will be authored by the international collaborators with the USGS project members serving mainly as co-editors.

## PRELIMINARY PUBLICATIONS BOOK 1 - 1999

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#### **ABSTRACT VOLUME FOR 1998 CONFERENCE**

Metallogeny, Fuel Resources, and Geodynamics of the North Asian Craton and Framing Orogenic Belts by Kuzmin, M.I., Antipin, V.S., Zorina, L.D., Mitrofanov, G.L., and Spiridonov, A.M., eds., 1998, Conference Abstracts, Institute of Geochemistry, Siberian Branch, Russian Academy of Sciences, Irkutsk, 525 p.

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Central and Northeastern Asia Tectonics and Metallogeny, by Kuzmin, M.I., and Obolenskiy, A.A., eds., 2002, Conference Abstracts, Institute of Geology, and Institute of Geochemistry, Siberian Branch, Russian Academy of Sciences, Novosibirsk and Irkutsk, 167 p.

#### **GENERAL INTEREST ARTICLES**

Metallogenesis of Northeast Asia and Northwest North America, in International Geoscience, by John Reinemund: Geology, August, 1997, p. 27.  
Mineral Resources, Metallogenesis, and Tectonics of eastern and southern Siberia, Mongolia, Northeastern China, South Korea, and Japan, by Jean Weaver, Geology, February, 1999, p. 24.

#### **INTERNET/WEB SITES FOR INFORMATION ABOUT CURRENT AND PRIOR PROJECTS**

The following U.S.G.S. Internet/Web sites provide summary information for the current project on Northeast Asia, and for the prior project on the Russian Far East, Alaska, and the Canadian Cordillera. Also listed are Web sites for publications for the current and prior projects.

##### **Web Site for Description of Northeast Asia Project**

<http://minerals.usgs.gov/west/projects/minres.html>

##### **Web Site for Description of Project on Russian Far East, Alaska, and Canadian Cordillera:**

<http://minerals.usgs.gov/west/projects/majdeps.html>

##### **Web Sites for Publications from Project on Northeast Asia:**

Preliminary Publications Book 1 From Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia (U.S.G.S. Open-File Report 99-165): <http://geopubs.wr.usgs.gov/open-file/of99-165/>

##### **Web Sites for Publications of Project on Russian Far East, Alaska, and Canadian Cordillera:**

Significant Metalliferous and Selected Non-Metalliferous Lode Deposits and Placer Districts for the Russian Far East, Alaska, and Canadian Cordillera: U.S.G.S. Open-File Report 96-513-B: <http://geopubs.wr.usgs.gov/open-file/of96-513-b/>  
Summary Terrane, Mineral Deposit, and Metallogenic Belt Maps of the Russian Far East, Alaska, and the Canadian Cordillera: U.S.G.S. Open-File Report 98-136: <http://geopubs.wr.usgs.gov/open-file/of98-136/>  
Geographic Information Systems (GIS) Compilation of Geophysical, Geologic, and Tectonic Maps for the Circum-North Pacific: U.S. Geological Survey Open-File Report 99-422: <http://geopubs.wr.usgs.gov/open-file/of99-422/>

#### **PROJECT PROPOSAL WORKSHOPS**

November 7-11, 1994: United Institute of Geology and Geophysics, Novosibirsk.  
September 9-16, 1995: Geological Institute, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia.  
December 10-13 1996: Institute of Geochemistry, Russian Academy of Sciences, Irkutsk, Russia.  
December 17-19, 1996: Geological Survey of Japan, Tsukuba Center, Japan.  
July 1-3, 1997: Korean Institute of Geology, Minerals, and Materials, Taejon, Korea.

#### **END-OF-YEAR PROJECT WORKSHOPS**

November 4-7, 1997: Institute of Geochemistry, Russian Academy of Sciences, Irkutsk, Russia.  
December 5-10, 1998: Institute of Geology and Mineral Resources, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia.  
December 9-12 1999: Geological Research Institute, Changchun University of Science and Technology, Changchun, China.  
June 6-9, 2000: Geological Survey of Japan, Tsukuba, Japan.  
October 16-20, 2000: Far East Geological Institute, Russian Academy of Sciences, Vladivostok, Russia.  
October 22-26, 2001: Institute of Geochemistry, Russian Academy of Sciences, Irkutsk, Russia.  
September 20-21, 2002: Institute of Geology, Russian Academy of Sciences, Novosibirsk.

## ORGANIZATIONS PARTICIPATING IN PROJECT

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<b>China</b>	Geological Research Institute, Jilin University, Changchun, China China Geological Survey, Beijing, China
<b>Japan</b>	Geological Survey of Japan/AIST
<b>Mongolia</b>	Institute of Geology and Mineral Resources, Mongolian Academy of Sciences, Ulaanbaatar Mineral Resources Authority of Mongolia, and Ministry of Agriculture and Industry Department of Geology and Mineralogy, Mongolian University of Science and Technology, Ulaanbaatar Department of Geology and Mineralogy, Mongolian National University, Ulaanbaatar
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