

MINERAL RESOURCES, METALLOGENESIS, AND TECTONICS OF NORTHEAST ASIA

Project Summary, Publication List, and Web Sites

INTRODUCTION

A multi-year project is 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, Metallogenesis, 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.

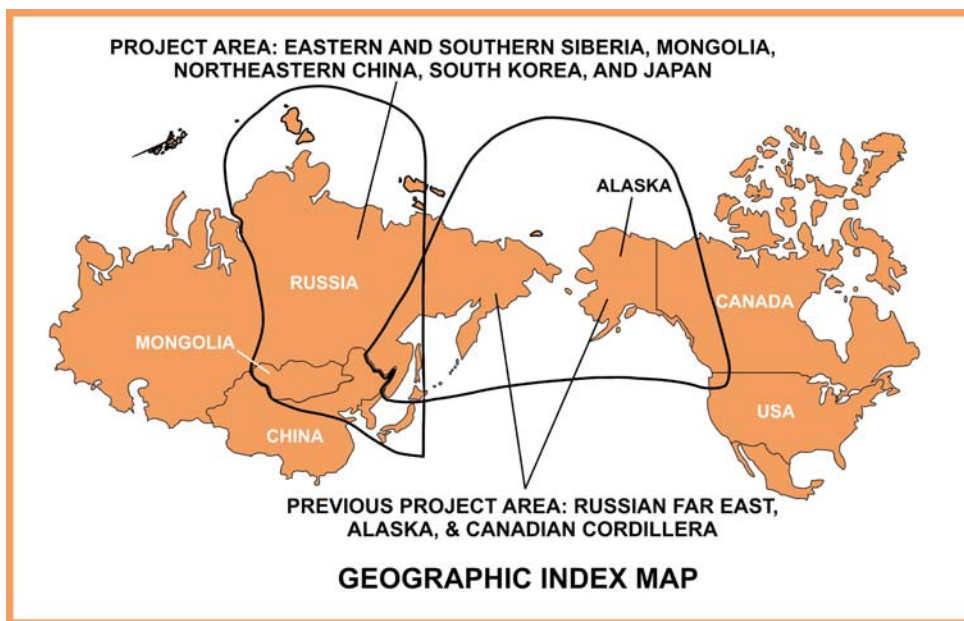
COLLABORATING AGENCIES

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.





STUDY AREA

The project study area consists of Eastern and Southern Siberia, Mongolia, Northern 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, Metallogenesis, 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

Preliminary Publications Book 1 From Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia, Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., 1999: U.S.G.S. Open-File Report 99-165 (CD-ROM). Available for free from Internet/Web at:
<http://geopubs.wr.usgs.gov/open-file/of99-165/>

Introduction to preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia, by Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast

Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 6 p.

Geographic base map of Northeast Asia, by Miller, R.J., Koch, R.D., Nokleberg, W.J., Hwang, Duk-Hwan, Ogasawara, Masatsugu, Orolmaa, Demberel, Prokopiev, A.V., Sudo, Sadahisa, Vernikovskiy, V.A., and Ye, Mao, 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 1 sheet, scale 1: 5,000,000, 3 p.

Preliminary description of mineral deposit models, by Gunchin, D., Dangindorjiin, D., Gerel, O., Gotovsuren, A., and Sodov, A., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 30 p.

Preliminary geodynamic map of Yakutia region, eastern Siberia, by Parfenov, L.M., Prokopiev, A.V., Deikunenko, A.V., Oxman, V.S., Smelov, A.P., Timofeev, V.F., Tret'yakov, F.F., Zadgenizov, A.P., and Vernikovskiy, V.A., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 2 sheets, scale 1:5,000,000.

Preliminary table of lode and occurrences of Altay-Sayan region and adjacent areas, Eastern Siberia, Russia, by Obolenskiy, A.A., Distanov, E.G., and Sotnikov, V.I., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 13 p.

Preliminary table of lode and placer deposits and occurrences of Mongolia, by Gunchin, D., Badarch, G., Chimed, N., Dorjgotov, D., and Gotovsuren, A., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 62 p.

Preliminary table of placer gold deposits and occurrences of Mongolia, by Dejidmaa, G., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and

tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 9 p.

Preliminary terrane and overlap assemblage map of Altay-Sayan region, southern Siberia, by Berzin, N.A., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 1 sheet, scale 1:5,000,000.

Preliminary terrane and overlap assemblage map of Russian Southeast region, by Khanchuk, A.I., and Popeko, L.I., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 1 sheet, scale 1:5,000,000.

Preliminary terrane and overlap assemblage map of Trans-Baikal and Eastern Sayan region, by Gordienko, I.V., and Bulgatov, A.N., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 1 sheet, scale 1:5,000,000.

Summary of pre-accretionary and accretionary metallogenic belts of Mongolia, by Dejidmaa, G., and Badarch, G., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 10 p.

Terrane map of Northeast Asia: Principles of compilation and major subdivisions of the legend, by Parfenov, L.M., Khanchuk, A.I., and Nokleberg, W.J., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 11 p.

Terranes, synaccretionary, and postaccretionary complexes of the Transbaikalia and southeastern part of Eastern Sayn Regions, Siberia, by Gordienko, I.V., and Bulgatov, A.N., 1999, in Nokleberg, W.J., Naumova, V.V., Kuzmin, M.I., and Bounaeva, T.V., eds., Preliminary publications book 1 from project on mineral resources, metallogenesis, and tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 99-165 (CD-ROM), 9 p.

PRELIMINARY PUBLICATIONS BOOK 2 – 2003

This publication provides preliminary versions of major compilations in Adobe Acrobat PDF format for maps, and Word and PDF format for articles and tables.

Preliminary Publications Book 2 From Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia, edited by Nokleberg, W.J., Miller, R.J., Naumova, V.V., Khanchuk, A.I., Parfenov, L.M., Kuzmin, M.I., Bounaeva, T.M., Obolenskiy, A.A., Rodionov, S.M., Seminskiy, Z.V., and Diggles, M.F., 2003: U.S.G.S. Open-File Report 03-203 (CD-ROM). Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of03-203/>

Preliminary Northeast Asia geodynamics map (Adobe Acrobat PDF version), by Parfenov, L.M., Khanchuk, A.I., Badarch, Gombosuren, Miller, R.J., Naumova, V.V., Nokleberg, W.J., Ogasawara, Masatsugu, Prokopiev, A.V., and Yan, Hongquan, with contributions on specific regions by Belichenko, Valentina, Berzin, N.A., Bulgatov, A.N., Byamba, Jamba, Deikunenko, A.V., Dong, Yongsheng, Dril, S.I., Gordienko, I.V., Hwang, Duk Hwan, Kim, B.I., Korago, E.A., Kos'ko, M.K., Kuzmin, M.I., Orolmaa, Demberel, Oxman, V.S., Popeko, L.I., Rudnev, S.N., Sklyarov, E.V., Smelov, A.P., Sudo, Sadahisa, Suprunenko, O.I., Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi, Timofeev, V.F., Tret'yakov, F.F., Tomurtogoo, Onongin, Vernikovskiy, V.A., Vladimiro, A.G., Wakita, Koji, Ye, Mao, and Zedgenizov, A.N., 2003, in Nokleberg, W.J., and 10 others, eds.: Preliminary Publications Book 2 from Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 03-203 (CD-ROM), 2 sheets, scale 1:5,000,000.

Preliminary metallogenic belt and mineral deposit maps for Northeast Asia (Adobe Acrobat PDF versions), by Obolenskiy, A.A., Rodionov, S.M., Dejidmaa, Gunchin, Gerel, Ochir, Hwang, Duk Hwan, Miller, R.J., Nokleberg, W.J., Ogasawara, Masatsugu, Smelov, A.P., Yan, Hongquan, and Seminskiy, Z.V., with compilations on specific regions by Ariunbileg, Sodov, Biryul'kin, G.B., Byamba, Jamba, Davydov, Y.V., Distanov, E.G., Dorjgotov, Dangindorjiin, Gamyarin, G.N., Fridovskiy, V.Yu., Goryachev, N.A., Gotovsuren, Ayurzana, Khanchuk, A.I., Kochnev, A.P., Kostin, A.V., Kuzmin, M.I., Letunov, S.A., Li, Jiliang, Li, Xujun, Malceva, G.D., Melnikov, V.D., Nikitin, V.M., Parfenov, L.M., Popov, N.V., Prokopiev, A.V., Ratkin, V.V., Shpikerman, V.I., Sotnikov, V.I., Spiridonov, A.V., Stogniy, V.V., Sudo, Sadahisa, Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi, Supletsov, V.M., Timofeev, V.F., Tyan, O.A., Vetluzhskikh, V.G., Wakta, Koji, Xi, Aihua, Yakovlev, Y.V., Zhizhin, V.I., Zinchuk, N.N., and Zorina, L.M., 2003, in Nokleberg, W.J., and 10 others, eds.: Preliminary Publications Book 2 from

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Introduction to, and summary tables on significant metalliferous and selected non-metalliferous lode deposits, and selected placer districts of Northeast Asia (Adobe Acrobat PDF and Word versions), by Ariunbileg, Sodov, Biryul'kin, G.V., Byamba, Jamba, Davydov, Y.V., Dejidmaa, Gunchin, Distanov, E.G., Dorjgotov, Gamyamin, G.N., Gerel, Ochir, Fridovskiy, V.Yu., Gotovsuren, Ayurzana, Hwang, Duk Hwan, Kochnev, A.P., Kostin, A.V., Kuzmin, M.I., Letunov, S.A., Li, Jiliang, Li, Xujun, Malceva, G.D., Melnikov, V.D., Nikitin, V.M., Obolenskiy, A.A., Ogasawara, Masatsugu, Orolmaa, Demberel, Parfenov, L.M., Popov, N.V., Prokopiev, A.V., Ratkin, V.V., Rodionov, S.M., Seminskiy, Z.V., Shpikerman, V.I., Smelov, A.P., Sotnikov, V.I., Spiridonov, A.V., Stogniy, V.V., Sudo, Sadahisa, Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi., Supletsov, V.M., Timofeev, V.F., Tyan, O.A., Vetluzhskikh, V.G., Xi, Aihua, Yakovlev, Y.V., Yan, Hongquan, Zhizhin, V.I., Zinchuk, N.N., and Zorina, L.M., 2003, in Nokleberg, W.J., and 10 others, eds.: Preliminary Publications Book 2 from Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 03-203 (CD-ROM), 47 p.

Geographic base map of Northeast Asia (Adobe Acrobat PDF, Corel Draw, and Adobe Illustrator versions), by Miller, R.J., Koch, R.D., Nokleberg, W.J., Hwang, Duk-Hwan, Ogasawara, Masatsugu, Orolmaa, Demberel, Prokopiev, A.V., Sudo, Sadahisa, Vernikovskiy, V.A., and Ye, Mao, 2003, in Nokleberg, W.J., and 10 others, eds.: Preliminary Publications Book 2 from Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 03-203 (CD-ROM), 1 sheet, scale 1:5,000,000, explanatory text, 3 p.

Mineral deposit models for Northeast Asia (Adobe Acrobat PDF and Word versions), by Obolenskiy, A.A., Rodionov, S.M., Ariunbileg, Sodov, Dejidmaa, Gunchin, Distanov, E.G., Dorjgotov, Dangindorjiin, Gerel, Ochir, Hwang, Duk Hwan, Sun, Fengyue, Gotovsuren, Ayurzana, Letunov, S.N., Li, Xujun, Nokleberg, W.J., Ogasawara, Masatsugu, Seminsky, Z.V., Smelov, A.P., Sotnikov, V.I., Spiridonov, A.A., Zorina, L.V., and Yan, Hongquan, 2003, in Nokleberg, W.J., and 10 others, eds.: Preliminary Publications Book 2 from Project on Mineral Resources, Metallogenesis, and Tectonics of Northeast Asia: U.S. Geological Survey Open-File Report 03-203 (CD-ROM), 44 p.

SIGNIFICANT METALLIFEROUS AND SELECTED NON-METALLIFEROUS LODE DEPOSITS, AND SELECTED PLACER DISTRICTS OF NORTHEAST ASIA – 2003

Significant metalliferous and selected non-metalliferous lode deposits, and selected placer districts of Northeast Asia (CD and Web versions), by Ariunbileg, Sodov, Biryul'kin, G.V., Byamba, Jamba, Davydov, Y.V., Dejidmaa, Gunchin, Distanov, E.G., Dorjgotov, Gamyamin, G.N., Gerel, Ochir, Fridovskiy, V.Yu., Gotovsuren, Ayurzana, Hwang, Duk Hwan, Kochnev, A.P., Kostin, A.V., Kuzmin, M.I., Letunov, S.A., Li, Jiliang, Li, Xujun, Malceva, G.D., Melnikov, V.D., Nikitin, V.M., Obolenskiy, A.A., Ogasawara, Masatsugu, Orolmaa, Demberel, Parfenov, L.M., Popov, N.V., Prokopiev, A.V., Ratkin, V.V., Rodionov, S.M., Seminskiy, Z.V., Shpikerman, V.I., Smelov, A.P., Sotnikov, V.I., Spiridonov, A.V., Stogniy, V.V., Sudo, Sadahisa, Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi., Supletsov, V.M., Timofeev, V.F., Tyan, O.A., Vetluzhskikh, V.G., Xi, Aihua, Yakovlev, Y.V., Yan, Hongquan, Zhizhin, V.I., Zinchuk, N.N., and Zorina, L.M., 2003: U.S. Geological Survey Open-File Report 03-220 (CD-ROM), 422 p. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of03-220/>

DIGITAL FILES FOR NORTHEAST ASIA GEODYNAMICS, MINERAL DEPOSIT LOCATION, AND METALLOGENIC BELT MAPS, STRATIGRAPHIC COLUMNS, DESCRIPTIONS OF MAP UNITS, AND DESCRIPTIONS OF METALLOGENIC BELTS – 2004

Digital files for Northeast Asia geodynamics, mineral deposit location, and metallogenic belt maps, stratigraphic columns, descriptions of map units, and descriptions of metallogenic belts (CD and Web versions), edited by Nokleberg, W.J., Badarch, Gombosuren, Berzin, N.A., Diggles, M.F., Hwang, Duk Hwan, Khanchuk, A.I., Miller, R.J. Naumova, V.V., Obolenskiy, A.A., Ogasawara, Masatsugu, Parfenov, L.M., Prokopiev, A.V., Rodionov, S.M., and Hongquan, Yan, 2004: U.S.G.S. Open-File Report 2004-1252 (CD-ROM). Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

Descriptions of metallogenic belts, methodology, and definitions for Northeast Asia mineral deposit location and metallogenic belt maps, compiled by Rodionov, S.M., Obolenskiy, A.A., Dejidmaa, G., Gerel, O., Hwang, D.H., Miller, R.J., Nokleberg, W.J., Ogasawara, M., Smelov, A.P., Yan, H., and Seminskiy, Z.V., 2004, U.S.G.S. Open-File Report 2004-1252 (CD-ROM), explanatory text, 442 p. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

Descriptions of overlap assemblages and tectono-stratigraphic terranes, definitions, and methods for compilation for Northeast Asia geodynamics map, compiled by Parfenov, L.M., Khanchuk, A.I., Badarch, G., Berzin, N.A., Miller, R.J., Naumova, V.V., Nokleberg, W.J., Ogasawara, M., Prokopiev, A.V., and Yan, H., 2004, U.S.G.S. Open-File Report 2004-1252 (CD-ROM), explanatory text, 167 p. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

Generalized Northeast Asia geodynamics map, compiled by Parfenov, L.M., Khanchuk, A.I., Badarch, G., Berzin, N.A., Hwang, D.H., Miller, R.J., Naumova, V.V., Nokleberg, W.J., Ogasawara, M., Prokopiev, A.V., and Yan, H., 2004, U.S.G.S. Open-File Report 2004-1252 (CD-ROM), scale 1:15,000,000. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

Metallogenic belt and mineral deposit maps for Northeast Asia, compiled by Obolenskiy, A.A. Rodionov, S.M. Dejidmaa, G., Gerel, O., Hwang, D.H., Miller, R.J., Nokleberg, W.J., Ogasawara, M., Smelov, A. P., Yan, H., and Seminskiy, Z.V. , 2004, U.S.G.S. Open-File Report 2004-1252 (CD-ROM), 1 sheet, scale 1:7,500,000, 3 sheets, scale 1:15,000,000, explanatory text, 442 p. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

Stratigraphic columns for Northeast Asia geodynamics Map, compiled by Parfenov, L.M., Naumova, V.V., Khanchuk, A.I., Badarch, G., Ogasawara, M., Prokopiev, A.V., and Yan, H., 2004, U.S.G.S. Open-File Report 2004-1252 (CD-ROM), explanatory text and columns, 185 p. Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of04-1252/>

ADDITIONAL MAJOR PUBLICATIONS

Preliminary Northeast Asia geodynamics map (Paper Maps on Demand, and Web versions), by Parfenov, L.M., Khanchuk, A.I., Badarch, Gombosuren, Miller, R.J., Naumova, V.V., Nokleberg, W.J., Ogasawara, Masatsugu, Prokopiev, A.V., and Yan, Hongquan, with contributions on specific regions by Belichenko, Valentina, Berzin, N.A., Bulgatov, A.N., Byamba, Jamba, Deikunenkov, A.V., Dong, Yongsheng, Dril, S.I., Gordienko, I.V., Hwang, Duk Hwan, Kim, B.I., Korago, E.A., Kos'ko, M.K., Kuzmin, M.I., Orolmaa, Demberel, Oxman, V.S., Popeko, L.I., Rudnev, S.N., Sklyarov, E.V., Smelov, A.P., Sudo, Sadahisa, Suprunenko, O.I., Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi, Timofeev, V.F., Tret'yakov, F.F., Tomurtogoo, Onongin, Vernikovskiy, V.A., Vladimiro, A.G., Wakita, Koji, Ye, Mao, and Zedgenizov, A.N., 2003: U.S. Geological Survey Open-File Report 03-205, 2 sheets, scale 1:5,000,000. Paper version available from USGS Maps on Demand Web site: <http://rockyweb.cr.usgs.gov/mod/interest.html> (\$20.00 per sheet). Web version available for

free at: <http://geopubs.wr.usgs.gov/open-file/of03-205/>

Preliminary metallogenic belt and mineral deposit location maps for Northeast Asia (Paper Maps on Demand, and Web versions), by Obolenskiy, A.A., Rodionov, S.M., Dejidmaa, Gunchin, Gerel, Ochir, Hwang, Duk Hwan, Miller, R.J., Nokleberg, W.J., Ogasawara, Masatsugu, Smelov, A.P., Yan, Hongquan, and Seminskiy, Z.V., with compilations on specific regions by Ariunbileg, Sodov, Biryul'kin, G.B., Byamba, Jamba, Davydov, Y.V., Distanov, E.G., Dorjgotov, Dangindorjiin, Gamyarin, G.N., Fridovskiy, V.Yu., Goryachev, N.A., Gotovsuren, Ayurzana, Khanchuk, A.I., Kochnev, A.P., Kostin, A.V., Kuzmin, M.I., Letunov, S.A., Li, Jiliang, Li, Xujun, Malceva, G.D., Melnikov, V.D., Nikitin, V.M., Parfenov, L.M., Popov, N.V., Prokopiev, A.V., Ratkin, V.V., Shpikerman, V.I., Sotnikov, V.I., Spiridonov, A.V., Stogniy, V.V., Sudo, Sadahisa, Sun, Fengyue, Sun, Jiapeng, Sun, Weizhi, Supletsov, V.M., Timofeev, V.F., Tyan, O.A., Vetluzhskikh, V.G., Wakta, Koji, Xi, Aihua, Yakovlev, Y.V., Zhizhin, V.I., Zinchuk, N.N., and Zorina, L.M., 2003: U.S. Geological Survey Open-File Report 03-203, 1 sheet, scale 1:7,500,000, 3 sheets, scale 1:15,000,000, explanatory text, 143 p. Paper version available from USGS Maps on Demand Web site: <http://rockyweb.cr.usgs.gov/mod/interest.html> (\$20.00 per sheet). Web version available for free at: <http://geopubs.wr.usgs.gov/open-file/of03-203/>

SPECIAL ISSUE OF GEOLOGY AND GEOPHYSICS ON GEODYNAMICS, METALLOGENY AND PETROLEUM POTENTIAL OF THE NORTH-ASIAN CRATON AND FRAMING OROGENIC BELTS - 1999

North-Asian Craton: metallogeny and petroleum potential, by Kontorovich, A.E. and Kuz'min M.I., 1999: *Geology and Geophysics*, v. 40, p. 1521-1523 (in Russian).

Early Proterozoic margin-continental complexes of the Angara fold belt and their metallogeny, by Nozhkin, A.D., 1999: *Geology and Geophysics*, v. 40, p. 1524-1544 (in Russian).

Geodynamics and metallogeny of the Mongolo-Transbaikalian region, by Gordienko, I.V., and Kuz'min, M.I., 1999: *Geology and Geophysics*, v. 40, p. 1545-1562 (in Russian).

Northern Pacific orogens: a collage of terranes and history of its formation, by Parfenov, L. M., Nokleberg, W.J., Monger, J.W.H., Norton, I.O., Stone, D.B., Fujita, K., Khanchuk, A.I., and Scholl, D.W., 1999: *Geology and Geophysics*, v. 40, p. 1563-1575 (in Russian).

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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/>

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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.

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.
 June 2-5, 2003: Institute of Geochemistry, Russian Academy of Sciences, Irkutsk.
 September 15, 2004, Presidium, Russian Academy of Sciences, Vladivostok.

ORGANIZATIONS PARTICIPATING IN PROJECT

COUNTRY

ORGANIZATIONS

China	Geological Research Institute, College of Earth Sciences, Jilin University, Changchun, China
Japan	China Geological Survey, Beijing, China
Mongolia	Geological Survey of Japan/AIST Institute of Geology and Mineral Resources, Mongolian Academy of Sciences, Ulaanbaatar Geologic Information Center, Mineral Resources Authority of Mongolia Department of Geology and Mineralogy, Mongolian University of Science and Technology, Ulaanbaatar Department of Geology and Mineralogy, Mongolian National University, Ulaanbaatar
Russia	All Russia Research Institute for Geology and Mineral Resources of the World Ocean (VNII Okeangeologia), Russian Ministry of Natural Resources Buryat Institute of Geology, Ulan-Ude Buryat Scientific Center, Russian Academy of Sciences, Ulan-Ude Far East Geological Institute, Russia Academy of Sciences, Vladivostok Institute of Earth's Crust, Russian Academy of Sciences, Irkutsk Institute of Geochemistry, Russian Academy of Sciences, Irkutsk Institute of Diamond and Noble Metal Geology, Russian Academy of Sciences, Yakutsk Institute of Tectonics and Geophysics, Russian Academy of Sciences, Khabarovsk Mineral Deposit Department, Irkutsk State University Institute of Geology, Russian Academy of Sciences, Novosibirsk Yakutian Academy of Sciences
South Korea	Korea Institute of Geosciences and Mineral Resources, Taejon
U.S.A.	U.S. Geological Survey, Menlo Park, California University of Texas, Arlington

FOR ADDITIONAL PROJECT INFORMATION, PLEASE CONTACT:

Name and Country	Address	Phone Numbers and EMAIL Address
Gombosuren Badarch Mongolia	Institute of Geology and Mineral Resources Mongolian Academy of Sciences Enkhtaivan Avenue 63 Ulaanbaatar, Mongolia 210351	Voice Telephone: 976-11-457-858 FAX: 976-11-457-858 EMAIL: gbadarch@magicnet.mn
Yan Hongquan Northeast China	Geological Research Institute, College of Earth Sciences Jilin University 2199 Jinshe Street Changchung, China 130061	Voice Telephone: 86-431-854-0912 FAX: 86-431-892-8327 EMAIL: yanhongq@public.cc.jl.cn

Alexander I. Khanchuk Russia - Russian Southeast	Director, Far East Geological Institute Russia Academy of Sciences Prospect 100-letya 159 Vladivostok-22, Russia 690022	Voice Telephone: 4232-31-83-23 FAX: 4232-31-87-76 EMAIL: director@fegi.ru
Duk-Hwan Hwang South Korea	Korea Institute of Geosciences and Mineral Resources 30, Kajung-dong, Yuson-ku Taejon, Korea 305-350	Voice Telephone: 82-42-868-3092 FAX: 82-42-861-9720 EMAIL: dhhwang@kigam.re.kr
Mikhail Kuzmin Russia - SE Siberia	Director, Institute of Geochemistry Russian Academy of Sciences Irkutsk, Russia 664033	Voice Telephone: 3952-460-500 FAX: 3952-464-050 EMAIL: mikuzmin@igc.irkutsk.su
Warren J. Nokleberg U.S.A.	Western Mineral Resources U.S. Geological Survey, MS 901 Menlo Park, California USA 94025	Voice Telephone: 650-329-5732 FAX: 650-329-5373 EMAIL: wnokleberg@usgs.gov
Alexander A. Obolenskiy Russia - Southern Siberia	Institute of Geology Russian Academy of Sciences Prospect Academician Koptyug, No. 3, Novosibirsk, Russia 630090	Voice Telephone: 3832-33-30-28 FAX: 3832-35-27-92 EMAIL: obolensk@uiggm.nsk.su
Masatsugu Ogasawara Japan	Geological Survey of Japan/AIST Tsukuba Central 7, Tsukuba, Japan 305-8567	Voice Telephone: 81-298-61-3854 FAX: 81-298-61-3742 EMAIL: masa.ogasawara@aist.go.jp
Andrei V. Prokopiev Russia - NE Siberia	Associate Director, Institute of Diamond & Noble Metal Geology Russian Academy of Sciences 39, Lenin Avenue Yakutsk, Russia 676000	Voice Telephone: (411) 245-5030 FAX: (411) 244-5708 EMAIL: prokopiev@diamond.ysn.ru

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By Warren J. Nokleberg
U.S. Geological Survey
Menlo Park, CA USA 94025