

12/89

(For Distribution)

CHECKLIST FOR STATE LESSEES WHEN EXPLORING  
ON ALL STATE METALLIC MINERALS LEASES

The state metallic minerals lease, issued under the authority of Minnesota Statutes Sections 93.08-93.12 and 93.25 and Minnesota Rules, parts 6125.0100-6125.0700<sup>(1)</sup>, includes provisions governing surface use, drilling, conduct of operations, inspection, and compliance with applicable laws. The following checklist sets forth guidelines to assist the state lessee in complying with these provisions and Minnesota Statutes c. 103I.<sup>(2)</sup> Additional guidelines may apply to those leased lands which are designated as "subject to" certain existing easements, sites, or conditions. When private or federal surface ownership is encountered over leased state minerals, the lessee is directed to paragraph 25 of the metallic minerals lease.<sup>(3)</sup> References to other agencies are not necessarily inclusive of all state or federal agencies who should be contacted.

GEOPHYSICAL, GEOLOGICAL, AND GEOCHEMICAL SURVEYS

1. Prior to performing any ground exploration activity on any state metallic minerals lease, regardless of surface ownership, the Exploration Section of the Minerals Division at the Hibbing office of the Minnesota Department of Natural Resources must be notified. Prior to grid cutting, a grid location map must be sent to the Exploration Section. Immediately prior to conducting individual geophysical, geochemical, or geological surveys, the Exploration Section is to be notified. Notify the Exploration Section when ground surveys are complete.
2. If the Minnesota Department of Natural Resources has administrative control of the surface, the appropriate Minnesota DNR Area Forest Supervisor or Area Silviculturist and Area Wildlife Manager must be consulted prior to the time when grid cutting and geophysical, geological, and geochemical surveys are performed. Area Forest Supervisors' or Area Silviculturists' and Area Wildlife Managers' names and addresses are attached (Appendix D-1 and D-2, respectively).
3. If the county controls the surface (i.e. tax-forfeited land), contact the appropriate county official with reference to their requirements for the use of the surface.

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- (1) Rules Governing Permits and Leases for Metallic Minerals Except Iron Ores and Taconite Ores
  - (2) Wells, Borings and Underground Uses Law, referred to in this checklist as the exploratory borings law.
  - (3) Lease to Prospect For, Mine, and Remove Metallic Minerals

DRILLING, TRENCHES, AND PITS

1. In advance of drilling on any state metallic minerals lease, the exploratory boring law requires that an explorer must be registered by the Minnesota Department of Natural Resources - Minerals Division (MDNR-MD)<sup>(4)</sup> and licensed by the Minnesota Department of Health (MDH)<sup>(5)</sup>.
2. Prior to any surface sampling for exploratory or prospecting purposes which produces surface disturbance beyond what is typical of geochemical or outcrop sampling (e.g. trenches, pits), the Exploration Section, along with the appropriate surface managers, must be informed of the location and magnitude of sampling anticipated.
3. The exploratory boring law requires written notification to be submitted to the Exploration Section of the MDNR-MD and to the Ground Water Quality Unit of the MDH at least ten days prior to moving a drill rig onto a drill site, regardless of surface ownership.<sup>(6)</sup> Notification must include a location map at a scale of 1" = 2 miles locating the drill site to the nearest forty-acre parcel. To eliminate duplication, a map at a larger scale showing the site location and the access drill road will be acceptable at this time. In any case, a drill site and drill road location map must be submitted to the Exploration Section prior to moving a drill rig onto a drill site where a State metallic minerals lease has been issued. As required by the state metallic minerals lease, the Exploration Section must be notified in advance of the exact date drilling will begin. The Exploration Section must be notified immediately following drill rig removal from the site. Notify the Exploration Section, as soon as practical, when drill core is available for examination. The mining company core log should be made available for use by the Minerals Division geologist when he examines the drill core or cuttings.
4. There are recreational trails which are maintained for riding, hiking, biking, snowmobiling or cross-country skiing in the area of state leases. If drilling activity is likely to significantly interfere with trail use, contact the appropriate MDNR Trails Coordinator. Trails and Waterways Coordinators' names and addresses are attached (Appendix D-3).
5. If the Minnesota Department of Natural Resources has administrative control of the surface, the appropriate Minnesota DNR Area Forest Supervisor or Area Silviculturist and Area Wildlife Manager must be consulted with reference to drill road location and other related drilling activity.

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(4) Minn. Stat. Sec. 103I.601, subd. 3

(5) Minn. Stat. Sec. 103I.601, subd. 2

(6) Minn. Stat. Sec. 103I.601, subd. 4

DRILLING (continued)

6. If the county controls the surface (i.e. tax-forfeited land), contact the appropriate county official with reference to their requirements for the use of the surface.
7. Contact the Waters Division prior to any drilling activity which would appropriate, use, divert, or interfere with public waters.

Northeastern Minnesota (Grand Rapids)	218/327-4417
Northwestern Minnesota (Bemidji)	218/755-3973
East Central Minnesota (Brainerd)	218/828-2225

In cases where drilling is within 50 feet of a waterway or body of water, special drilling procedures may be required by the Minerals Division.

8. Regardless of surface ownership, the Minerals Division will inspect the drill site while the rig is on the site and again after it has been removed. If any unusual conditions are observed during the initial inspection, the lessee will be informed as to the corrective steps necessary to be taken before the site is abandoned. After the rig is removed from the site, the Minerals Division will make the final inspection. The final inspection will determine whether or not the site was left in an acceptable condition. If not, the lessee will be informed as to what corrective steps to take to make the site acceptable.
9. As required by the exploratory boring law, the Health Department, MDNR-MD, the Pollution Control Agency, the Community Health Board, and their officers and employees shall have access at all times to drill sites for the purpose of inspecting the drill holes, drilling, abandonment of holes, sampling ambient air and drilling waters, and measuring the radio-activity of the waste drill cuttings.<sup>(7)</sup>
10. The explorer shall promptly notify the Health Department, MDNR-MD, the Pollution Control Agency, and the Community Health Board of any occurrence during drilling that has a potential for significant adverse health or environmental effect, and shall take immediate action to minimize any adverse effects.<sup>(8)</sup>
11. Explorers are required to permanently or temporarily seal drill holes in the same manner as that prescribed for the sealing of water wells. The Ground Water Quality Section of the MDH should be contacted for further information.<sup>(9)</sup>

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(7) Minn. Stat. Sec. 103I.601, subd. 5

(8) Minn. Stat. Sec. 103I.601, subd. 6

(9) Minn. Stat. Sec. 103I.601, subd. 8

DRILLING (continued)

12. Within thirty days of permanent or temporary sealing of a drill hole, the explorer must submit a sealing report, on forms provided by the Commissioner of Health, to the Health Department. The sealing report must include:
  - a. A map showing the location of each drill hole at as large a scale as possible, which is normally prepared as part of the explorer's record;
  - b. Type and thickness of overburden and rock encountered;
  - c. Identification of water-bearing formations encountered;
  - d. Identification of static water levels, if taken, and other hydrologic conditions encountered;
  - e. Method of sealing used;
  - f. Method of construction and drilling used; and
  - g. Average scintillometer reading of waste drill cuttings prior to backfilling of the recirculation pits. <sup>(10)</sup>

EXPLORATION DATA AND SAMPLES

1. All data and samples, as required by the state metallic minerals lease, are considered non-public by the Minerals Division during the life of the lease.
2. Authorized Minerals Division employees shall be provided reasonable access, when requested, to all data and samples from State metallic minerals leases. Authorized Minerals Division employees are those designated by the Director and who normally work with the metallic minerals leases.
3. Copies of all exploration data derived from a State metallic minerals lease shall be submitted to the Minerals Division as soon as they are reasonably available in a presentable form. However, they should be submitted no later than one year after data is derived. The data should be in a form customarily prepared for permanent record by the lessee. The Minerals Division may request any data in its preliminary form before it is available in final form. If no exploration work has been conducted on a lease, so inform the Exploration Section annually and again when the lease is terminated. All exploration data not previously submitted must be submitted at the time of lease termination.
4. All assay results from drill core and other rock samples are to be sent directly from the commercial laboratory to the Exploration Section.

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(10) Minn. Stat. Sec. 103I.601, subd. 9

5. At least a quarter portion of all exploration samples, including geochemical, rock outcrop, drill cores, and the pulps from any chemical analysis shall be submitted to the Hibbing office of the Minerals Division. The samples must be submitted no later than one year after they are collected. The lessee may request, in writing, an extension to keep samples in their possession beyond one year for justifiable reasons. All exploration samples are to be submitted at the time of lease termination.

#### MINERAL DEPOSIT EVALUATION

The State's environmental rules<sup>(11)</sup> require that an environmental assessment worksheet be prepared prior to a mineral deposit evaluation of metallic mineral deposits other than natural iron ore and taconite. Mineral deposit evaluation is defined in the exploratory borings law to mean an examination of an area "to determine the quality and quantity of minerals, excluding exploratory boring but including obtaining a bulk sample, by excavating, trenching, constructing shafts, ramps, tunnels, pits, and producing refuse and other associated activities."<sup>(12)</sup> Such activities may also require state permits and licenses. Contact the St. Paul office of the Division of Minerals if you propose to conduct mineral deposit evaluation.

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(11) Minnesota Rules, parts 4410.0200-4410.7800

(12) Minn. Stat. Sec. 103I.605, subd. 2

MDH, GROUND WATER QUALITY CONTROL

Jim Nye, Unit Leader  
Ground Water Quality Control Unit  
Minnesota Department of Health  
717 Delaware Street, S. E.  
Minneapolis, MN 55440  
Phone: (Office) 612/623-5556  
(Home) 612/529-2118

MINERALS DIVISION EXPLORATION SECTION

LeRoy E. Warren, Supervisor, Exploration Section  
Division of Minerals  
Minnesota Department of Natural Resources  
P.O. Box 567, 1525 E. 3rd Avenue  
Hibbing, MN 55746  
Phone: (Office) 218/262-6767  
(Home) 218/262-4674

## Appendix

The following pages include directories for various MDNR Divisions and additional guidelines for leased lands which are designated as "subject to" in the 1989 unit book.

### Appendix Content

- D-1 Forestry Offices
- D-2 Area Wildlife Managers
- D-3 Trails and Waterways Coordinators
- E-1 Designated Trout Streams
- E-2 Historic/Archaeological Sites
- E-3 Natural Heritage Sites
- E-4 Special Review of Exploration Plans
- E-7 Trails



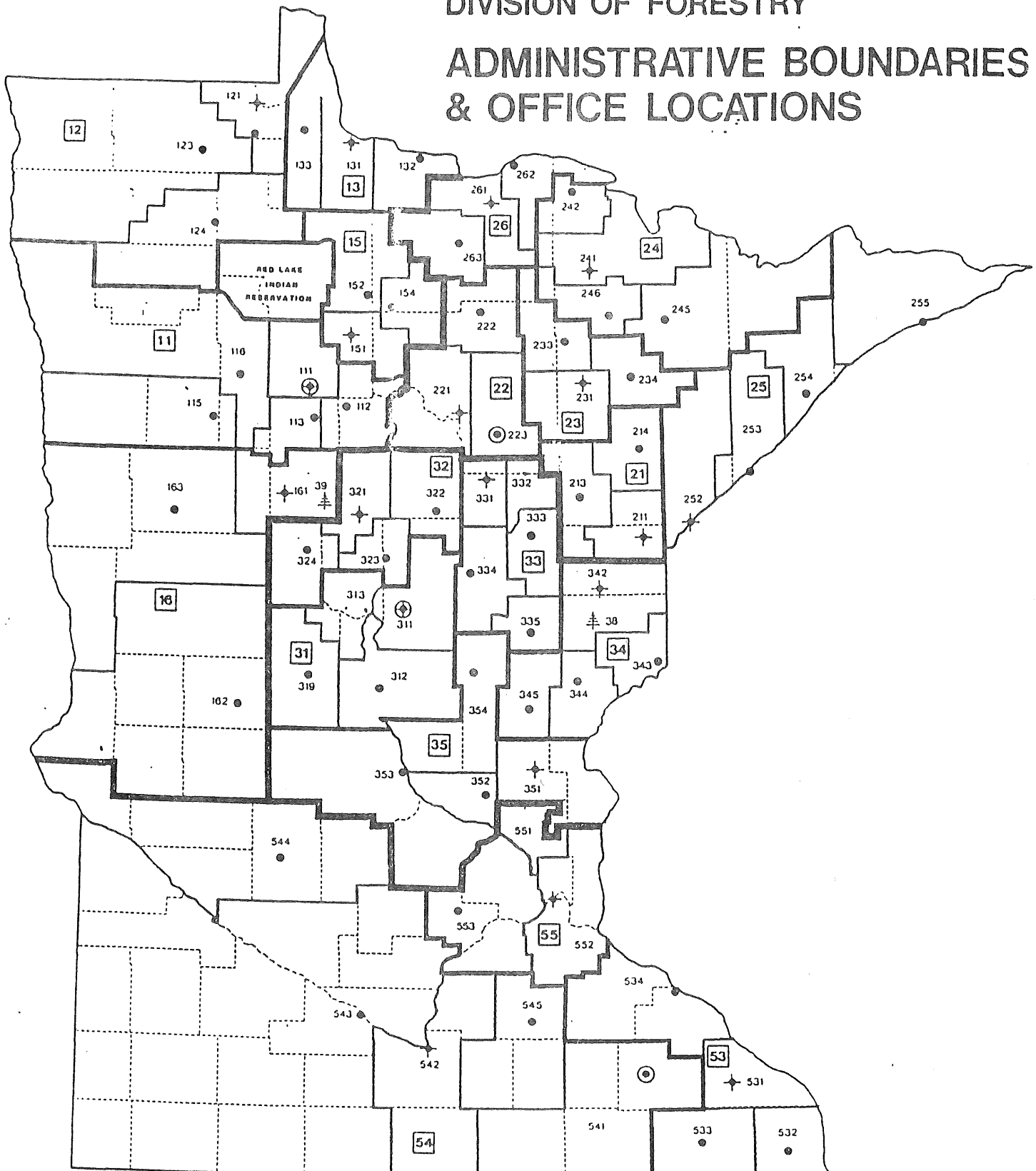


MINNESOTA DEPARTMENT OF NATURAL RESOURCES  
Forestry Offices - Metallic Minerals Exploration Areas

<u>Area</u>	<u>Address</u>	<u>Telephone</u>
11	2220 Bemidji Avenue Bemidji, MN 56601	218/755-2890
12	P.O. Box 43 Warroad, MN 56763	218/386-1304
13	P.O. Box 1001, R.R. 1 Baudette, MN 56623	218/634-2172
15	Blackduck, MN 56630	218/835-6684
21	1604 Hwy. 33, P.O. Box 220 Cloquet, MN 55720	218/879-4544
22	P.O. Box 157 Deer River, MN 56636	218/246-8343
23	1208 E. Howard, P.O. Box 705 Hibbing, MN 55746	218/262-6760
24	Orr, MN 55771	218/757-3274
25	6163 Rice Lake Road Duluth, MN 55803	218/723-4669
26	Box 453 Littlefork, MN 56653	218/278-6651
33	P.O. Box 9 Hill City, MN 55748	218/697-2476
34	R. 2 - 701 Kenwood Moose Lake, MN 55767	218/485-4474

DIVISION OF FORESTRY

ADMINISTRATIVE BOUNDARIES  
& OFFICE LOCATIONS



MINNESOTA DEPARTMENT OF NATURAL RESOURCES  
Wildlife Managers - Metallic Minerals Exploration Areas

REGION I - NORTHWESTERN MINNESOTA

	<u>Address</u>	<u>Telephone</u>
Breyen, Jim	Regional Wildlife Manager 2115 Birchmont Beach Road N.E. Bemidji, MN 56601	218/755-3958
<u>Area Wildlife Manager</u>		
Forester, Gordy	123 Main Avenue North Thief River Falls, MN 56701	218/681-7790
Davis, George	P.O. Box 183 Karlstad, MN 56732	218/436-2427
Dittrich, Jeff	Box 1001 Baudette, MN 56623	218/634-1705
Johnson, Leon	2114 Bemidji Avenue Bemidji, MN 56601	218/755-2964
Telander, Paul	Thief Lake Wildlife Management Area Middle River, MN 56737	218/222-3747
Vorland, Jeanine	Red Lake Wildlife Management Area Box 100, Roosevelt, MN 56673 (Office S. of Roosevelt at Norris Camp)	218/783-6861
Johnson, Earl	P.O. Box 823 Detroit Lakes, MN 56501	218/847-1579
Wolf, Terry	203 W. Fletcher Street Crookston, MN 56716	218/281-3287

REGION II - NORTHEASTERN MINNESOTA

Janecek, Jerome	Regional Wildlife Manager 1201 E. Highway #2 Grand Rapids, MN 55744	218/327-4413
<u>Area Wildlife Manager</u>		
Peterson, William	Fish & Wildlife Building Grand Marais, MN 55604	218/387-2370
Kirsch, Bob	804 15th St. Two Harbors, MN 56616	218/834-5097
Chesness, Robert	1201 E. Highway #2 Grand Rapids, MN 55744	218/327-4428

REGION II - NORTHEASTERN MINNESOTA (Continued)

<u>Area Wildlife Manager</u>	<u>Address</u>	<u>Telephone</u>
Lightfoot, Jeff	DNR - Highway 135E Virginia, MN 55792	218/749-7748
Schneeweis, James	District Forestry Office Route 8, Box 8 International Falls, MN 56649	218/286-5434
Thunhorst, Fred	Fish and Wildlife Headquarters Box 3710 Ely, MN 55731	218/365-3230
Staffon, Rich	Forestry Building, S. Hwy. #33 Cloquet, MN 55720	218/879-4544
Dickey, Dave	502 Minnesota Ave. N. Aitkin, MN 56431	218/927-6915

REGION III - EAST-CENTRAL MINNESOTA

Wulf, Henry	Regional Wildlife Manager 1601 Minnesota Drive Brainerd, MN 56401	218/828-2615
<u>Area Wildlife Manager</u> Hemness, Lee	P.O. Box 398 Hinckley, MN 55037	612/384-6148

# REGION I

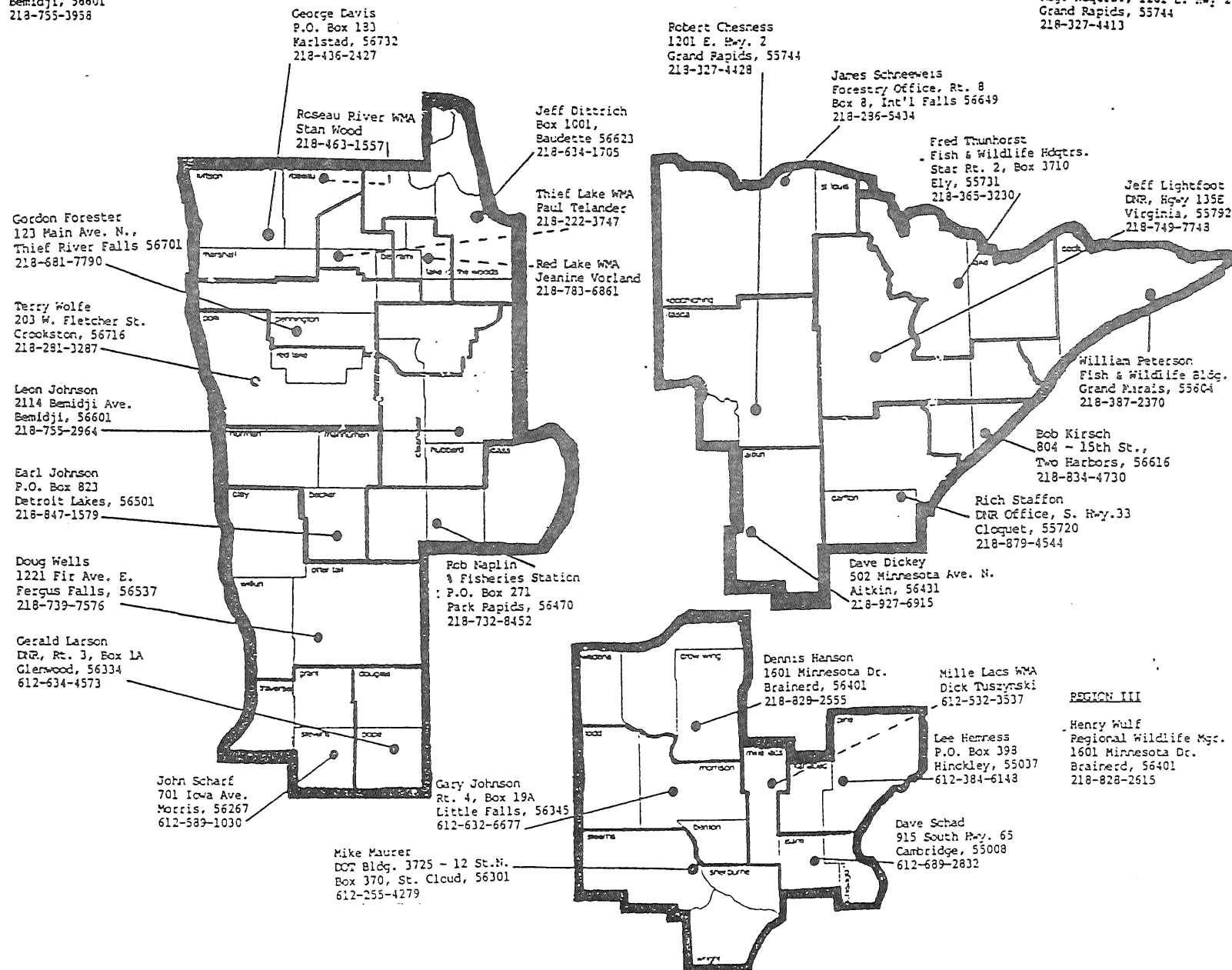
Jim Breyer  
Regional Wildlife Manager  
2115 Birchmont Beach Rd. SE.  
Bemidji, 56601  
218-755-3958

## SECTION OF WILDLIFE

Regional and Area Wildlife Managers

# REGION II

Jerome Janacek  
Regional Wildlife Manager  
Reg. Hdqtrs., 1201 E. Hwy. 2  
Grand Rapids, 55744  
218-327-4413



CHECKLIST FOR STATE LESSEES WHEN EXPLORING  
ON ALL STATE METALLIC MINERALS LEASES



MINNESOTA DEPARTMENT OF NATURAL RESOURCES  
Trails and Waterways Coordinators  
Metallic Minerals Exploration Areas

BELTRAMI, LAKE OF THE WOODS, MARSHALL, AND ROSEAU COUNTIES

Trails and Waterways Coordinator  
DNR - Region I Headquarters  
2115 Birchmont Beach Road N.E.  
Bemidji, MN 56601  
Office phone: 218/755-3969  
Attn: Ardon (Butch) Belcher

AITKIN, CARLTON, COOK, ITASCA, KOOCHICHING, LAKE, AND ST. LOUIS COUNTIES

Trails and Waterways Coordinator  
DNR - Region II Headquarters  
1201 E. Highway #2  
Grand Rapids, MN 55744  
Office phone: 218/327-4409  
Attn: Les Ollila

PINE COUNTY

Trails and Waterways Coordinator  
DNR - Region III Headquarters  
1601 Minnesota Drive  
Brainerd, MN 56401  
Office phone: 218/828-2693  
Attn: Tim Browning





DESIGNATED TROUT STREAMS  
CHECKLIST WHEN EXPLORING FOR MINERALS

This checklist applies to exploration on units listed in the mining unit book as "Subject to designated trout streams." This checklist sets forth the guidelines which are in addition to those outlined in "Checklist for State Lessees When Exploring on All Metallic Minerals Leases." Trout streams are designated by Department of Natural Resources, Commissioner's Order No. 2294.

GEOPHYSICAL, GEOCHEMICAL, AND GEOLOGICAL SURVEYS AND DRILLING

1. Contact the Area Fisheries Manager before grid cutting, geophysical, geologic, and geochemical surveys or drilling takes place to locate designated trout streams and establish protective measures.
2. Remove flags and pickets when they are no longer required.

Area Fisheries Managers for state lands within metallic minerals lease areas:

AITKIN COUNTY

Kit Nelson  
502 Minnesota Avenue North  
Aitkin, MN 56431  
Office phone: 218/927-6915

BELTRAMI COUNTY

Roy Johannes  
2114 Bemidji Avenue  
Bemidji, MN 56601  
Office phone: 218/755-2974

CARLTON COUNTY

John Spurrier  
10029 North Shore Drive  
Duluth, MN 55804  
Office phone: 218/723-4785

COOK COUNTY

Steven Hirsch  
P.O. Box 146  
Grand Marais, MN 55604  
Office phone: 218/387-2535

DESIGNATED TROUT STREAMS  
CHECKLIST WHEN EXPLORING FOR MINERALS

- 2 -

E-1  
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ITASCA COUNTY

Dave Holmbeck  
1201 E. Highway #2  
Grand Rapids, MN 55744  
Office phone: 218/327-4430

KOOCHICHING COUNTY

Dave Friedl  
P.O. Box 8, Route 8  
International Falls, MN 56649  
Office phone: 218/286-5220

LAKE COUNTY

Peter Eikeland  
P.O. Box 546  
Finland, MN 55603  
Office phone: 218/353-7591

LAKE OF THE WOODS, MARSHALL and ROSEAU COUNTIES

Michael Larson  
Route 1, Box 1001  
Baudette, MN 56623  
Office phone: 218/634-2522

PINE COUNTY

Richard Trombley  
P.O. Box 398  
Hinckley, MN 55037  
Office phone: 612/384-6147

ST. LOUIS COUNTY

Dave Friedl (Northern)  
Box 8, Route 8  
International Falls, MN 56649  
Office phone: 218/286-5220

Joseph Geis (East Central)  
1429 Grant McMahan Blvd.  
Ely, MN 55731  
Office phone: 218/365-3230

Dave Holmbeck (West Central)  
1201 East Highway #2  
Grand Rapids, MN 55744  
Office phone: 218/327-4430

John Spurrier (Southern)  
10029 North Shore Drive  
Duluth, MN 55804  
Office phone: 218/723-4785

HISTORIC/ARCHAEOLOGICAL SITES AND ARCHAEOLOGICAL FIND SPOTS  
CHECKLIST WHEN EXPLORING FOR MINERALS

This checklist applies to exploration on units listed in the mining unit book as "Subject to historic/archaeological sites or archaeological find spots." This checklist sets forth guidelines which are in addition to those outlined in "Checklist for State Lessees When Exploring on All State Metallic Minerals Leases."

GEOPHYSICAL, GEOCHEMICAL, AND GEOLOGICAL SURVEYS AND DRILLING

1. Before establishing plans for all surveys or drilling, contact the Environmental Assessment Officer at the State Historic Preservation Office to identify more precisely these sites and to establish protective measures. Some of these measures may include avoiding disturbance of specific locations or restricting preparation of drill roads and drilling to certain months.
2. In advance of preparing drill roads and transporting drills to site, contact the Environmental Assessment Officer so that an employee of the State Historic Preservation Office can be present at the site if necessary.

State Historic Preservation Office  
Fort Snelling History Center  
St. Paul, MN 55111  
Office phone: 612/726-1171  
Attn: Environmental Assessment Officer

NATURAL HERITAGE SITES  
CHECKLIST WHEN EXPLORING FOR MINERALS

This checklist applies to exploration on units listed in the mining unit book as "Subject to natural heritage sites." These units contain environmentally sensitive features such as a bald eagle nest or rare plant habitat. This checklist sets forth guidelines which are in addition to those outlined in "Checklist for State Lessees When Exploring on All State Metallic Minerals Leases."

GEOPHYSICAL, GEOCHEMICAL, AND GEOLOGICAL SURVEYS AND DRILLING

1. Before establishing plans for all surveys or drilling, contact the Environmental Review Unit to identify sensitive areas and to establish protective measures. Some of these measures may include avoiding disturbance of specific locations or restricting disruptive activities to certain months.
2. When dates have been set for grid cutting and geophysical, geologic and geochemical surveys, notify the Environmental Review Unit of these dates.
3. Remove flags and pickets when they are no longer required.
4. In advance of preparing drill roads and transporting drills to site, contact the Environmental Review Unit so that he can be present at the site.

DNR - Division of Minerals  
Box 45, DNR Building  
500 Lafayette Road  
St. Paul, MN 55155-4045  
Office phone: 612/296-4807  
Attn: Environmental Review Unit

CHECKLIST WHEN EXPLORING FOR MINERALS  
WHERE SPECIAL REVIEW OF EXPLORATION PLANS IS REQUIRED

This checklist applies to exploration on units listed in the mining unit book as "Subject to special review of exploration plans." These units may contain environmentally sensitive areas that require special consideration when exploring. This checklist sets forth guidelines which are in addition to those outlined in "Checklist for State Lessees When Exploring on All State Metallic Minerals Leases."

GEOPHYSICAL, GEOCHEMICAL, AND GEOLOGICAL SURVEYS AND DRILLING

Before establishing plans for all surveys or drilling, contact the Environmental Review Unit to identify sensitive areas and to establish protective measures.

DNR - Division of Minerals  
Box 45, DNR Building  
500 Lafayette Road  
St. Paul, MN 55155-4045  
Office phone: 612/296-4807  
Attn: Environmental Review Unit

TACONITE, NORTH SHORE AND ARROWHEAD STATE TRAIL  
CHECKLIST WHEN EXPLORING FOR MINERALS

This checklist applies to exploration on units listed in the mining unit book as "Subject to the Taconite Trail," "Subject to the North Shore Trail," or "Subject to the Arrowhead State Trail." This checklist sets forth guidelines which are in addition to those outlined in "Checklist for State Lessees When Exploring on All State Metallic Minerals Leases."

GEOPHYSICAL, GEOCHEMICAL, AND GEOLOGICAL SURVEYS AND DRILLING

1. Before establishing plans for all surveys or drilling, contact the proper Trails and Waterways Coordinator.
2. When dates have been set for grid cutting and geophysical, geologic, and geochemical surveys, notify the Trails and Waterways Coordinator of these dates.
3. Remove flags and pickets when they are no longer required.
4. In advance of preparing drill roads and transporting drills to site, notify the Trails and Waterways Coordinator of these dates.

BELTRAMI, LAKE OF THE WOODS, MARSHALL, and ROSEAU COUNTIES

DNR - Region I Headquarters  
2115 Birchmont Beach Road N.E.  
Bemidji, MN 56601  
Office phone: 218/755-2265  
Attn: Ardon Belcher

COOK, ITASCA, KOOCHICHING, LAKE and ST. LOUIS COUNTIES

DNR - Region II Headquarters  
1201 E. Highway #2  
Grand Rapids, MN 55744  
Office phone: 218/327-1709  
Attn: Les Ollila

