

P-64

Confidentiality

All information provided to the Board in a Notice will be protected as confidential and not made a part of the public record unless the prospector provides a written release or unless the prospector has been released from the reclamation responsibility of the Notice. All information contained in a drill hole abandonment report will be permanently protected as confidential.

Completion of Prospecting

Upon completion of prospecting and reclamation operations, the prospector must notify the Board in order to secure release of a financial warranty. See Rule 7.7(1) for details on the financial warranty release procedures.

(08/94)

8193F

STATE OF COLORADO

DIVISION OF MINERALS AND GEOLOGY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



DEPARTMENT OF
NATURAL
RESOURCES

NOTICE OF INTENT TO CONDUCT PROSPECTING OPERATIONS

Roy Romer
Governor

James S. Lochhead
Executive Director

Michael B. Long
Division Director

This form is for all minerals other than coal.

If you plan to conduct prospecting on any lands in Colorado, then you must provide all information described in this form. "Prospecting is defined in Rule 1.1(38) of the Minerals Rules and Regulations and is discussed in greater detail in the "Prospecting Information" form. Each of these can be obtained from the office of the Division of Minerals and Geology (DMG). If you plan to conduct prospecting on BLM land, you should also include the information on pages 5 and 6 of this form.

All information provided the Mined Land Reclamation Board (MLRB) in this Notice of Intent will be protected as confidential information by the Board and not be a matter of public record in the absence of a written release from the Operator or upon a finding by the Board that reclamation is satisfactory.

* Information on this form which is not required by law, but which, if provided, will assist the Board in timely processing and release of financial warranty obligations.

1. DATE OF FILING OF THIS NOTICE OF INTENT: _____, _____.

2. PROSPECTOR:

Name: _____

Address: _____

Phone: _____

PERSON MLRB SHOULD CONTACT:

Name: _____

Address: _____

Phone: _____

3. APPLICATION FEE: \$75.00

4. DESCRIPTION OF THE LANDS:

Site Name: _____

Location: The land is located primarily within *Section _____, Township _____,

Range _____, * _____ Prime Meridian, *County _____

NOTE: Supply longitude and latitude if lands have not been surveyed:

*Land Ownership: Private _____, and/or Public (specify agency) _____

Estimated acreage of land surface to be affected: _____

Please attach a USGS 7.5 minute quad, or similar map of adequate scale, which locates the prospecting site(s).

5. ESTIMATED DATES OF COMMENCEMENT AND COMPLETION:

Commencement: _____, _____

Completion*: _____, _____

6. *MINERAL(S) AND/OR RESOURCE(S) BEING INVESTIGATED: _____

7. TYPE OF OPERATION:

Describe the type of operations which will be undertaken in conducting the prospecting operations. Include equipment to be used, access and site construction requirements, type of disturbance (drill holes, trenching, shafts, etc.), anticipated relationship to surface and subsurface water (proximity to streams, penetration of ground water aquifers), sampling procedures (fluid, bulk, geophysical, etc.) and any other pertinent information (attach additional page, if needed).

8. RECLAMATION MEASURES:

State the measures to be taken to reclaim any affected land, and/or permanently abandon any drill hole, consistent with the applicable requirements of Rule 3 and Rule 5 and any applicable regulations promulgated thereunder by the Board (attach additional page, if needed).

9. The Board suggests that a photographic record of the pre-prospecting and post-prospecting conditions be kept by the prospector. These photos should be taken from the same location and by the same method to clearly show the pre-prospecting condition of the land and the reclamation efforts. Upon completion of reclamation and request for bond or surety release, the Board shall consider the photos as evidence of adequate reclamation, and thus, be able to act more quickly on the request for release.*
10. TERMS AND CONDITIONS FOR PROSPECTING OPERATIONS:
 - A. Reclamation measures shall be fulfilled in a timely manner.
 - B. The prospecting operations described in this Notice will be conducted in such a manner as to minimize surface disturbances. In addition to the measures required in Rule 6, precautions to be taken include:
 1. Confinement of operations to areas near existing roads or trails, where practicable;
 2. Drilling shall be conducted in such a way as to prevent cuttings and fluids from directly entering any dry or flowing stream channel;
 3. Timely abandonment of drill holes upon completion as required by Rule 5.4;
 4. Reclamation of affected lands upon completion of operations or phases of an operation; and
 5. Backfilling and revegetating any pits.
 - C. The prospecting operations shall be conducted in such a manner as to comply with all applicable state and federal air and water quality laws and regulations.
 - D. The prospecting operations shall be conducted so as to minimize adverse effects upon wildlife.
 - E. During the prospecting operations, the operator will perform the necessary stabilization and reclamation work to prevent significant alteration to the geomorphic processes at the site.
 - F. All prospecting operations shall be in compliance with the Colorado Mined Land Reclamation Act, as amended, and any rules and regulations promulgated pursuant thereto.
 - G. The Board shall determine (where there is a question) if an operation is prospecting or mining.
 - H. A financial warranty must be provided for the cost of reclamation of the disturbance described in this Notice. The prospector can either file a "One Site Prospecting Financial Warranty" or a "Statewide Financial Warranty."

Note: A One-Site Prospecting Financial Warranty should be filed in the amount of \$2,000.00 per acre of land to be disturbed unless the prospector demonstrates in this Notice that a lesser amount will cover the amount that it would cost the Board to complete reclamation. A statewide Financial Warranty must be posted in the amount of \$25,000.00.

The prospector will post a surety in the amount of \$_____.

The undersigned understands, accepts and agrees to comply with the foregoing terms and conditions and with all of the provisions of Rules 5 and 6.

Date

Signature of Prospector/Claimant

6902F (01/95)

STATE OF COLORADO

DIVISION OF MINERALS AND GEOLOGY

Department of Natural Resources

1313 Sherman St., Room 215

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James S. Lochhead
Executive Director

Michael B. Long
Division Director

PROSPECTING ON BUREAU OF LAND MANAGEMENT (BLM) LAND

You must provide the following additional information, if you plan to conduct prospecting operations on BLM land and wish to take advantage of the Cooperative agreement. This information will allow the BLM and MLRB to minimize duplicative efforts and allow you to post only one financial warranty for your prospecting operation.

1. CLAIMANT:

Name: _____

Address: _____

Telephone: _____

2. SITE/CLAIM INFORMATION:

List names, serial numbers and provide legal description to nearest quarter-quarter section of all sites or claims (attach additional page, if necessary).

NAME

SERIAL NUMBER

LEGAL DESCRIPTION

<u>NAME</u>	<u>SERIAL NUMBER</u>	<u>LEGAL DESCRIPTION</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. LOCATION MAP:

Please attach a USGS 7.5 minute quad, or similar map of adequate scale, which locates the prospecting site(s).

4. Are drill sites staked on the ground? Yes ___ No ___

ADDITIONAL TERMS AND CONDITIONS FOR PROSPECTING ON BLM LANDS

1. The prospector will supply a copy of this Notice of Intent to the BLM office.
2. The prospector authorizes the MLRB to discuss the information in this Notice of Intent with the BLM.
3. The prospector will complete reclamation to the standards described in 43 CFR 3809.1-3 (d) and that reasonable measures will be taken to prevent unnecessary or undue degradation of lands during operations.

The undersigned understands, accepts, and agrees to comply with the foregoing terms and conditions.

Date _____

Signature of Prospector/Claimant

6902F (01/95)

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ONE SITE PROSPECTING BOND

Prospecting Bond No. _____

Notice of Intent No. _____

KNOW ALL MEN BY THESE PRESENTS, that we (I), _____,
of the County of _____, in the State of _____, as
Principal(s) and _____ of (address)

_____ a corporation organized and existing under the laws of the State of
_____ and duly authorized to transact business in the State
of Colorado, as Surety, are held hereby and firmly bound unto the State of
Colorado, acting through the Mined Land Reclamation Board in the sum of

_____ Dollars (\$ _____) for
the payment of which sum, well and truly to be made, we hereby bind ourselves,
and each of our legal representatives, executors, administrators, successors
and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has filed a Notice of Intent to Conduct Prospecting
Operations with the Mined Land Reclamation Board on the following premises,
indicated on the Notice of Intent filed with the Board, which is attached
hereto and thereby incorporated by reference, to wit:

NOW, THEREFORE, the conditions of this obligation as such that if the
above-bounded Principal shall, in conducting such prospecting operations,
faithfully perform the provisions of the Notice of Intent to Conduct
Prospecting Operations filed with the Mined Land Reclamation Board and the
requirements of the plan to implement reclamation measures to reclaim all
lands affected by the prospecting operations approved and modified by the
Mined Land Reclamation Board, relating to the Colorado Mined Land Reclamation
Act, as amended (1976 Session Laws, H.B. 1065) and the Rules and Regulations
adopted pursuant thereto; upon the Mined Land Reclamation Board making a
finding that the lands described above have been satisfactorily reclaimed, and
approving the Operator's request for a bond release on such lands, then this
obligation shall be exonerated and discharged and become null and void;
otherwise to remain in full force and effect.

PROVIDED, however, the Surety shall not be liable under this bond for an amount greater in the aggregate than the sum designated in the first paragraph hereof, unless increased by a later amendment, and shall not be liable as respects any obligation related to prospecting and reclamation operations performed after the effective date of a cancellation of this bond pursuant to the terms of Section 34-32-117(3), C.R.S. 1973, as amended (1976 Session Laws, H.B. 1065). This bond shall remain in force and effect as respects all obligations for all prospecting and reclamation operations performed prior to the effective date of such cancellation unless the Principal files a substitute bond which: 1) assumes liability for all obligations for all prospecting and reclamation operations performed during the effective date of this bond; and 2) is acceptable to the Mined Land Reclamation Board; or unless the Mined Land Reclamation Board otherwise releases this surety.

Signed, sealed, and dated this _____ day of _____, _____.

Principal _____	Principal _____
Title _____	Title _____
Mailing Address _____	Mailing Address _____

Signed, sealed, and dated this _____ day of _____, _____.

Surety _____	Resident Agent _____
Title _____	Title _____
Mailing Address _____	Mailing Address _____

APPROVED:

Date: _____, _____

Division Director _____

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ASSIGNMENT OF CERTIFICATE OF DEPOSIT

TO WHOM IT MAY CONCERN:

REFERENCE: Certificate of Deposit Number _____

By submission of this letter, to be attached to the above referenced Certificate of Deposit, I hereby relinquish all title and claim to said certificate to the State of Colorado/Mined Land Reclamation Board, except for accrued interest against the original monies, until such time as the Division of Minerals and Geology/Mined Land Reclamation Board releases the certificate. This assignment of Certificate of Deposit supersedes any signature cards that may already be on file at the bank.

BY: _____

Operator/

Depositor of Original Monies

ACKNOWLEDGEMENT OF BANK

BY: _____

TITLE: _____

BANK NAME: _____

DATE: _____

NOTARY (Of Operator Signature)
Commission Expires _____

cc: Division of Minerals and Geology
ATTN: Deborah Mulloy
1313 Sherman Street, Room 215
Denver, Colorado 80203

Note to Operator:

In the event that your bank is unwilling or unable to prepare a certificate of deposit made payable only to the Mined Land Reclamation Board, this assignment will need to be executed in the presence of a notary with a copy provided to the bank to allow only Division of Minerals and Geology access to these funds.

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Instructions for Certificate of Deposit

Mineral Exploration/Prospecting

Public Funds Account

A Certificate of Deposit (CD) is a type of collateral bond. The permittee deposits money with a bank that provides the State with a Certificate stating funds are available for reclamation. C.R.S. 34-32-117 and 34-32.5-117 addresses Financial Warranties. The following items should be met.

1. This is a Public Funds Account. Our PDPA No. is 010004005101.
2. CD's must be assigned to the "State of Colorado/Mined Land Reclamation Board" or "State of Colorado/MLRB" on the certificate itself (in the "Account Name" area), and also upon the books of the bank issuing the certificate.
3. The maximum amount for a single CD is \$100,000.00, or the maximum level of insurance provided the bank by the F.S.L.I.C. or F.D.I.C. If the bond amount is greater than \$100,000.00, an applicant can submit two or more separate CD's but they must be from different banks.
4. The CD must be issued on an automatically renewable term. This must be stated on the CD document.
5. The original certificate is provided to the Division of Minerals and Geology, 1313 Sherman Street, Room 215, Denver, Colorado 80203 for safekeeping at the State Treasurer's Office.
6. The Tax ID number of the CD must be the operator's. All interest accrued against the CD will go direct to the operator.
7. The approved signature on the CD is the Division Director's. A blank signature card must be sent to the Division of Minerals and Geology (DMG), and DMG will return it to the bank with the Director's signature.
8. The operator must submit an executed "One-Site Prospecting Bond" form or a "Statewide Prospecting Bond" form in support of the Certificate of Deposit being submitted as bond.
9. In the event the bank is unwilling or unable to prepare a CD made payable only to the Colorado Mined Land Reclamation Board, an Assignment will need to be executed in the presence of a notary with a copy provided to the bank to allow only Colorado Mined Land Reclamation Board access to these funds.

If you have any questions regarding the issuance of the CD, please contact this office at (303) 866-3567.

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INFORMATION REGARDING THE USE OF SUCTION DREDGES IN COLORADO

Attached to this documents is general information regarding prospecting prepared by the Division of Minerals and Geology and by the Bureau of Land Management. This document addresses the use of suction dredges specifically.

The Division of Minerals and Geology regulates mining and prospecting operations in the State of Colorado under the auspices of the Colorado Mined Land Reclamation Act and the Mineral Rules and Regulations of the Mined Land Reclamation Board. Copies of the Act and Regulations are available from the Division of Minerals and Geology for \$5.00. If you plan to do any prospecting in Colorado it is advisable to obtain these documents as well as a "Notice of Intent to Conduct Prospecting" form. Mail your request, asking specifically for these documents, and a check to the letterhead address.

Of particular interest to recreational prospectors is the exclusion in the definition of the term prospecting contained in C.R.S. 34-32-103 that allows disturbance of 1600 square feet or less of the land's surface, not to exceed two such disturbances per acre; except that the cumulative total of such disturbances will not exceed five acres statewide in any prospecting operation extending over twenty-four consecutive months. If your dredging operation fits within this criterion, you do not have to file a Notice of Intent to

Conduct Prospecting with the Division of Minerals and Geology. IF YOUR OPERATION WILL DISTURB ANY SINGLE BLOCK OF LAND THAT IS MORE THAN 1600 SQUARE FEET, OR IF YOU WILL CREATE MULTIPLE DISTURBANCES THAT EXCEED 3200 SQUARE FEET WITHIN ONE ACRE, OR IF YOU WILL DISTURB MORE THAN FIVE ACRES OF LAND WITHIN 24 MONTHS, YOU MUST FILE A NOTICE OF INTENT. Please note that land surface includes land that is under water, such as stream beds.

As the foregoing discussion indicates, the Division of Minerals and Geology does not, at this time, regulate dredging operations on the basis of the size of the dredge, but rather on the areal extent of the disturbance. There are other agencies that may have regulatory authority over dredging operations within Colorado that may use dredge size as a criterion.

Even if you are not required to file a Notice of Intent for your dredging operation, there are a number of other agencies that may regulate such an operation. These would include:

1. Colorado Division of Water Resources (State Engineer) with regard to the administration of water rights if the operation makes a consumptive use of water.
2. Colorado Department of Health, Water Quality Control Division with regard to the discharge of pollutants into the waters of the state.
3. EPA Region VIII Water Quality Enforcement Branch regarding a General Permit for Portable Suction Dredges.
4. U.S. Bureau of Land Management or the U.S. Forest Service if the proposed operation will occur on federal lands.
5. U.S. Army Corps of Engineers regarding a Dredge and Fill (404) Permit.
6. The County Planning Department for the county or counties in which your proposed operation is located.
7. The Colorado Division of Wildlife and the U.S. Fish and Wildlife Service to assess impacts to fisheries and other wildlife.

The Division of Minerals and Geology would like to remind anyone that is anticipating doing any prospecting to respect property rights, and be aware of private in-holdings within public lands. Also, prospectors should take particular note of the following citations from the Mineral Rules and Regulations of the Mined Land Reclamation Board:

Rule 5.3.1: "The prospecting operations described in this notice will be conducted in such a manner as to minimize surface disturbances".

Rule 5.3.1(1): "Precautions to be taken include confinement of operations to areas near existing roads and trails where practicable".

Rule 5.3.2: "The prospecting operation shall be conducted as to minimize adverse affects upon wildlife".

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MINERAL PROSPECTING DRILL HOLE PERMANENT ABANDONMENT FINAL REPORT

Pursuant to the terms of 34-32-113(5.5)(d) and (e) of the Act, all information provided in this report shall be protected as confidential information by the Mined Land Reclamation Board and shall never be a matter of public record.

Prospect Site Name: _____ Prospect NOI No.: P- _____

Drill Hole I.D. No. _____

Date Drilled: _____ Date Permanently Abandoned: _____

OPERATOR: (PROSPECTOR)

DRILLER:

Name: _____

Name: _____

Address: _____

Address: _____

City: _____ St.: _____ Zip: _____

City: _____ St.: _____ Zip: _____

Telephone No.: () _____

Telephone No.: () _____

LOCATION:

The following information is required for all prospecting drill holes:

County: _____ Township: _____ Range: _____

_____ Prime Meridian; _____ 1/4 of the _____ 1/4 of Section _____

If the area has not been surveyed, supply the Longitude _____ West and
Latitude _____ North, or attach a location map, preferably a USGS Quad.

The following additional information is required for artesian flowing holes:

Distances must be provided with an accuracy of \pm 200 feet (34-32-113(5.5)(d))

_____ feet () north () south from the () south () north section line

_____ feet () east () west from the () west () east section line

NOTE: In the case of closely spaced drill holes having similar geologic and hydrologic characteristics, the Operator may, with the approval of the Division, submit a single consolidated final report including the location of all drill holes and a description of abandonment technique. In such a case, complete one abandonment final report form and attach a list of drill hole locations.

Complete One (1) of Either Subsections A or B; and Subsection C.

A. PERMANENT ABANDONMENT (Check the appropriate box and provide information)

() Plugged dry hole, method of plugging: _____

Depth at which concrete plug set: _____ feet below ground surface.

() Sealed Hole:

() Neat Cement Grout, top to bottom: grout mixture used: _____

() Neat Cement Grout, interval grouting: grout mixture used: _____

Intervals grouted (feet beneath ground surface, method and materials): _____

() Abandonment Fluid Mixture (Such as Sodium Bentonite with Polymer) Brand Name: _____

Marsh Funnel viscosity of abandonment fluid: _____ sec.

Type of surface plugging used: _____

Depth at which plug set: _____ feet below ground surface,

Method: _____

() Other method used with approval of the Division; describe in detail method and materials used on a separate attached sheet.

B. CONVERSION TO A WATER WELL

State Engineer's Permit No.: _____ (attach copy of permit)

Water Well Use:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

County: _____ Telephone: () _____

C. METHOD OF RECLAIMING DRILL SITE DISTURBANCE: _____

The Operator who conducted the prospecting drill operation states that the information set forth hereupon is true to the best of his knowledge.

Name of Operator's Representative: _____ Title: _____

Signature of Operator's Representative: _____ Date: _____

IDAHO

No Rivers!
No Streams

RESPONSIBLE AGENCY

Department of Lands
Bureau of Minerals
954 West Jefferson Street
Boise, ID 83720

Telephone: 208/334-0261

Contact: Scott Nichols
Bureau Chief

REGULATORY AUTHORITY

1. Idaho Surface Mining Act, Title 47, Chapter 15, Idaho Code
2. Rules and Regulations Governing Exploration and Surface Mining Operations

PERMITTING REQUIREMENTS

◆ **General Requirements**

An operator desiring to conduct exploration within the state of Idaho using motorized earth-moving equipment to locate minerals for immediate or ultimate sale, in either the natural or processed state, must notify the Department of Lands after beginning exploration operations. Notification is not required if no motorized earth moving equipment is involved. Exploration is defined as "... activities performed on the surface of lands to locate mineral bodies and to determine mineability and merchantability thereof." These activities include, but are not limited to, construction of roads, trenches, and exploration drill holes. Exploration notice requirements apply to all lands within the state, regardless of ownership. Exploration notifications shall be treated as confidential.

◆ **Specific Requirements**

1. Notify the Department of Lands, by certified mail, within seven days after beginning exploration activities.

2. The notification shall include the following:
 - a. Name and address of the operator;
 - b. Legal description of the exploration operation and its starting and estimated completion date; and
 - c. The anticipated size of the exploration operation and the general method of operation.

3. Exploration operations affecting less than two acres shall:
 - a. Wherever possible, contour the affected lands to their approximate previous contour; and
 - b. Conduct revegetation activities.

4. **Reclamation required for exploration operations affecting more than two acres:**
 - a. Abandoned exploration drill holes shall be plugged, or otherwise left so as to eliminate hazards to humans and animals;
 - b. Control siltation from affected lands;
 - c. Cross-ditch abandoned exploration roads; and
 - d. Conduct revegetation activities.

◆ **Reclamation Standards**

Abandoned lands affected by an exploration operation shall be top-dressed to the extent that such overburden is reasonably available from any pit or other excavation created by the exploration operation, with that type of overburden that is conducive to the control of erosion or the growth of vegetation that the operator elects to plant. Any water containment structure created in connection with exploration operations, shall be reasonably prepared so as not to constitute a hazard to human health or animal life.

The operator shall select and establish plant species that can be expected to result in vegetation comparable to that growing on the affected lands prior to exploration operations. Revegetation success, unless otherwise specified, shall be measured against the existing vegetation on site prior to exploration.

◆ **Drill Hole Plugging Requirements**

Exploration drill holes shall be plugged, or otherwise left so as to eliminate hazards to humans and animals.

◆ **Reclamation Surety Requirements**

The amount of the bond is determined by the estimated cost of reclamation, plus 10 percent, but not to exceed \$1,800/acre.

OTHER AGENCY CONTACTS

Idaho Department of Health and Welfare

Division of Environmental Quality

1410 North Hilton

Boise, Idaho 83706

208/373-0502

Idaho Department of Water Resources

1301 North Orchard Street

Statehouse Mail

Boise, Idaho 83720-9000

208/327-7900

MICHIGAN

RESPONSIBLE AGENCY

Michigan Department of Environmental Quality
Box 30256
Lansing, Michigan 48909

Telephone: 517/334-6974

Contact: Tom Wellman
Rex Tefertiller

REGULATORY AUTHORITY

Part 625 Mineral Wells, Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

PERMITTING REQUIREMENTS

◆ General Requirements

No permit is required to drill exploration test holes if the first expected bedrock is Precambrian in age. However, within two years of completion, the location and a log of the drill holes must be filed with the Supervisor of Mineral Wells of the Michigan Department of Environmental Quality (DEQ).

When Paleozoic or younger rocks (including the Jacobsville Sandstone) are the first bedrock encountered, an application for a permit to drill must be filed with the DEQ.

All information submitted in connection with exploration test wells is kept confidential until the owner either releases the information or is no longer a mineral producer or owner in the state.

◆ Specific Requirements

1. File application to drill with the Department of Environmental Quality, Geological Survey Division (if Paleozoic or younger rocks are the first bedrock encountered).
2. Fee of \$1.00 for a permit to drill a test well.

◆ **Reclamation Standards**

All pits and excavations shall be filled and leveled off at the surface. All debris shall be removed and all conditions which may create a nuisance, or a fire, or pollution hazard must be eliminated. The surface must be returned as nearly as possible to its original condition. Surface water used in drilling must be treated using chlorine.

◆ **Drill Hole Plugging Requirements**

Unless otherwise instructed by the Supervisor of Mineral Wells, drill holes are to be plugged according to the "Recommended Practice for Plugging Soil Borings" as issued by the Southeastern Branch of the Michigan Section of the American Society of Civil Engineers.

Non-permitted drill holes must be plugged in the same manner as holes requiring a permit, and plugging records must be submitted with the required drill logs and location information.

◆ **Reclamation Surety Requirements**

Surety bond requirements for mineral well permits are as follows: a single drill hole is \$2000 and a blanket bond for two or more drill holes is \$5000.

OTHER AGENCY CONTACTS

Michigan Department of Environmental Quality
Upfield Headquarters
1990 US 41 South
Marquette, MI 49855
906-228-6561
Bill Swenor

MINNESOTA

RESPONSIBLE AGENCY

Exploration:

Minnesota Department of Natural Resources
Minerals Division
Box 45, DNR Building
500 Lafayette Road
St. Paul, Minnesota 55155-4045

Telephone: 612/296-4807

Contact: Gene Miller

— or —

Minnesota Department of Natural Resources
Minerals Division
P.O. Box 567
Hibbing, Minnesota 55746

Telephone: 218/262-6767

Contact: Albert Klaysmat

Drilling:

As above, and

Minnesota Department of Health
Well Management Unit
P.O. Box 59040
925 Delaware Street, N.E.
Minneapolis, Minnesota 55459-0040

Telephone: 612/627-5254

Contact: Dan Wilson

REGULATORY AUTHORITY

Exploration:

1. Minnesota Statutes sections 93.08—93.12 and 93.25
2. Minnesota Rules Governing Permits and Leases for Metallic Minerals except Iron Ores and Taconite Ores, Parts 6125.0100—6125.0700

Drilling and Drill Hole Abandonment:

1. Minnesota Statutes sections 103I.601—103I.605
2. Minnesota Department of Health Rules Chapter 4727.0100—4727.1300

PERMITTING REQUIREMENTS

◆ **General Requirements**

Notification is required prior to any exploratory boring (oil, natural gas, kaolin clay, metallic minerals). Any exploratory boring must be licensed by the Department of Health and a copy of the application for registration must also be provided to the Department of Health.

A person may not make an exploratory boring without an exploratory borer license. An explorer may designate an individual to supervise or oversee exploratory borings. The individual must take and pass an examination relating to the construction, location, and sealing of exploratory borings. A professional engineer or certified professional geologist is not required to take the examination.

Amendments to the rules relating to leases of state owned lands for exploration and mining of non-ferrous metallic minerals and for selected industrial minerals were adopted in 1995.

◆ Specific Requirements

Private Mineral Leases:

1. Submit notification to the Department of Natural Resources and the Department of Health ten days prior to initiating drilling activities.
 - a. Notification must include map of the exact location; and
 - b. Notification must be submitted by ten days before beginning exploration boring.
2. Submit drill hole abandonment forms no later than 30 days after completion of the drilling.

Minnesota Controlled Minerals Holdings:

1. Application must be made to the Commissioner of Natural Resources for Authorization to Conduct Geological Data Gathering Activities on state owned lands. This includes geophysical and geochemical activities, sampling of glacial overburden, and sampling and drilling of bedrock (to 20 feet). This Authorization is an alternative to applying for a state mineral lease if the area is limited to one township. The fee for Authorization is \$100. It does not grant any rights to a mineral lease and is non-exclusive.
2. Written notification must be submitted to the exploration section of the Department of Natural Resources and the well management unit of the Department of Health at least 20 days prior to exploration activities including drilling, regardless of surface ownership. The notification must include location of proposed activities using a 1:24,000 scale USGS 7.5' quadrangle map. As soon as practicable, the drill core must be made available for examination by the state.

The notice shall describe the exploration activities to be performed, the approximate beginning and ending dates, methods of mitigation of adverse impacts, location and method of access, and a proposed plan for site closure and stabilization if needed. The Commissioner has 20 days to respond.
3. If the Department of Natural Resources has control of the surface, the appropriate Department of Natural Resources Forest Supervisor or area silviculturist and area wildlife manager must be consulted with reference to drill road location and other drilling related activity.

If the county controls the surface (i.e. tax-forfeited land), the appropriate county official must be contacted with reference to their requirements for the use of the surface.

The Department of Natural Resources Waters Division must be contacted prior to any drilling activity which would appropriate, use, divert, or interfere with public waters. 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.

4. 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.
5. As required by the exploratory boring law, the Department of Health, Department of Natural Resources, the Pollution Control Agency, and 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 radioactivity of the waste drill cuttings.
6. The explorer shall promptly notify the Department of Health, Department of Natural Resources, 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.
7. Explorers are required to permanently or temporarily seal drill holes in the same manner as that prescribed for sealing of water wells.
8. Within 30 days of permanent or temporarily 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 of 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.

◆ Reclamation Standards

Upon completion of exploration under a state lease, supplies and equipment shall be removed and the site and roads must be restored to a condition satisfactory to the Commissioner.

◆ Drill Hole Plugging Requirements

Drill plugging requirements are as follows:

1. Permanent abandonment of exploratory borings.

Subpart 1. Abandoning the exploratory boring. Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon the boring. The boring shall be filled with grout to prevent contaminating materials from entering the water-bearing ground formations. All materials, debris and obstructions that may interfere with sealing operations shall be removed from the boring. Liner pipe shall be removed or perforated when necessary to assure placement of an effective seal. All casing and screen may be salvaged except casing that has been cemented in place. The boring shall be filled with appropriate sealing materials as described in Subpart 4 prior to removal of the casing.

Subpart 2. Grouting. The top of the hole shall be filled with ten feet of cement or concrete grout to within two feet of the land surface. Casing remaining in the hole shall be cut off at least two feet below land surface. The remaining top two feet of the hole shall be filled with native topsoil. When concrete, cement, or heavy drilling fluid is used as a grout material, it shall be inserted in the boring through a grout pipe from the bottom of the boring upward to the surface under pressure.

Subpart 3. Confining the flow. The flow in a boring, encountering flowing artesian conditions shall be confined, if possible, and the boring abandoned in accordance with parts 4727.0100 to 4727.1300. Proper judgement shall be exercised in the feasibility and practicability of sealing a boring encountering flowing artesian conditions. In some cases, the confining formation may have been so badly disturbed that sealing may only cause the flow to discharge in a less appropriate location. In other situations, the flow may have eroded so much material that the landscape has taken on the appearance of a natural spring. The sealing in this case may be impractical, if not impossible.

Subpart 4. Grout materials. A permanently abandoned boring shall be filled and sealed using one or more of the following substances in accordance with the geological materials penetrated:

- a. The section of a boring in unconsolidated deposits shall be filled with neat cement, concrete, or heavy drilling fluid to provide a permeability no greater than the natural condition.
- b. The section of a boring in a rock formation shall be filled with neat cement or concrete.
- c. The section of a boring in a cavernous or creviced rock (such as cavernous limestone or creviced granite, etc.) shall be filled with concrete or neat

cement, or alternate layers of concrete or neat cement and gravel or stone aggregate. At the top of the cavernous or creviced formation, the filling shall be completed by a layer of neat cement or concrete extending at least ten feet into the above overlying formation, and finished as provided in these rules.

- d. A boring so large that the use of neat cement, concrete, or heavy drilling fluid is impractical may be sealed with other materials subject to the approval of the Department of Health.

2. Temporary abandonment of exploratory borings.

A temporarily abandoned exploratory boring shall be maintained whereby it is not a source or channel of contamination for any aquifer. Until a boring is permanently abandoned, all provisions for protection of the ground water against contamination and pollution and for maintaining satisfactory sanitary conditions around the boring shall be carried out.

A boring which is temporarily abandoned shall be constructed to prevent the introduction of surface contaminants into the boring to prevent the passage of water from one aquifer to another. At the minimum, a temporarily abandoned boring shall be cased from bedrock or from the bottom of the boring if the boring terminates in unconsolidated materials, to a point one foot above the ground surface, or, if in a floodplain, at least two feet above the level of the highest flood of record. The casing shall be protected with an overlapping cap which will prevent any surface contamination from entering the boring.

Any boring which is temporarily abandoned shall be marked and protected with four steel posts (schedule 40 steel pipe) of a least four-inch diameter at equal distances from each other and which are placed two feet from the center of the casing. Such posts shall be installed to a depth of four feet into solid ground, or to a depth of two feet if each post is surrounded with one foot of concrete to a depth of two feet.

A boring shall not be temporarily abandoned for more than five years.

3. Abandonment report.

Within 30 days of temporary or permanent abandonment, the explorer shall submit an abandonment report, as required by Minnesota Statutes, Section 156A.071, Subdivision 8, to the Department of Health. The abandonment report shall specify whether the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned. Blank copies of the Abandonment Report can be obtained from Dan Wilson or Jim Nye of the State Department of Health.

◆ **Reclamation Surety Requirements**

Bonding may be required for companies that are registered as explorers with the state. The Commissioner may request evidence that the applicant for an Authorization to Conduct Geological Data Gathering Activities or State Mineral Lease is technically and financially capable of performing under the terms of the Authorization or Lease and that the applicant has shown the capability to comply with environmental laws and permits.

OTHER AGENCY CONTACTS

Minnesota Environmental Quality Board
Room 100, Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101
612/296-2723

MISSOURI

RESPONSIBLE AGENCY

Department of Natural Resources
Division of Geology and Land Survey
P.O. Box 250
Rolla, Missouri 65401

Telephone: 573/368-2100

Contact: Cheryl Seeger or Ardel Rueff

REGULATORY AUTHORITY

1. RSMo (Cum. Supp. 1991) Sections 256.606, 256.615 and 256.626.
2. 10 CSR 23-6 Test Hole Construction and Plugging Code. Original rule filed August 17, 1993.

Requirements on state leased lands are part of the lease agreement. Federal land use requirements apply for exploration activities on Forest Service and Bureau of Land Management administered lands.

PERMITTING REQUIREMENTS

◆ General Requirements

The driller must hold a permit to install wells in Missouri.

◆ Specific Requirements

None

◆ Reclamation Standards

On private lands, reclamation standards are negotiated with the landowner. On state owned lands, reclamation standards are made a part of the lease agreement. Federal reclamation standards apply on all federal lands.

◆ **Drill Hole Plugging Requirements**

Specific standards for test holes (holes drilled in the exploration for minerals or for geologic data) are set out in 10 CSR 23-6.

1. Test holes with no surface casing must be filled with grout via tremmie pipe to within two feet of the surface. If the Davis Formation is penetrated, an expanding packer must be placed in the bottom portion of the formation and grouted to within two feet of the surface. The top two feet of hole must be filled with soil.
2. Test holes with removable surface casing pipe which penetrate the Davis Formation must have an expanding packer set in the bottom portion of the formation. The hole must be filled with grout from the packer to the bottom of the interior casing pipe via tremmie pipe (extending from near the bottom of the Davis Formation to at least 50 feet above the top of the formation). The hole must then be backfilled with chlorinated clean fill to the base of the surface casing pipe while the interior casing is being pulled. A 50 foot grout plug must be pumped through the casing pipe as it is being removed, filling the hole to the top of bedrock. Chlorinated clean fill must be used to backfill the hole above the upper plug while the surface casing pipe is being removed. The clean fill must extend to within two feet of the surface. The top two feet must be filled with on-site soil.
3. Test holes with grouted non removable surface casing: the casing should be cut off three feet below surface making the hole at least two feet in diameter larger than the surface casing. The hole is then filled to within two feet of the surface with grout and the remainder with soil.
4. A registration report must be submitted to the Geology and Land Surveys Division of the Missouri Geological Survey which documents the method of plugging. This registration report form is held confidential for ten years.

◆ **Reclamation Surety Requirements**

~~None~~

OTHER AGENCY CONTACTS

Missouri Department of Natural Resources
Jefferson State Office Building
Jefferson City, Missouri 65102
573/751-3332

Drillers Unit of the Wellhead Protection Section: Bruce Netzler and Michael Gawedzinsky

RESPONSIBLE AGENCY

Department of Environmental Quality
Permitting and Compliance Division
Hard Rock Program
P.O. Box 200901
Helena, Montana 59620-0901

Telephone: 406/444-4953 **Fax:** 406/444-1374

Contact: Scott Spano

REGULATORY AUTHORITY

1. Montana Metal Mine Reclamation Act, Title 82, Chapter 4, part 3, et. seq., MCA
2. Rules and Regulations governing the Montana Metal Mine Reclamation Act, Administrative Rules of Montana (ARM) Title 17, Chapter 24, Subchapter 1, et. seq.

PERMITTING REQUIREMENTS

◆ **General Requirements**

A state license is required for exploration activities, defined as "all activities conducted on or beneath the surface of the land resulting in material disturbance of the surface for the purpose of determining the presence, location, extent, depth, grade and economic viability of mineralization of those lands" Hand sampling with a pick and shovel for geochemical purposes, geophysical surveys, or mapping does not require a license. The Montana Metal Mine Reclamation Act applies to all lands within Montana (federal, state, private), with the exception of Indian lands. If the proposed project or partially on federal land, the applicant is advised to also notify the appropriate USFS or BLM office.

Each project to be licensed must be individually approved and bonded. The Department of Environmental Quality has an "exploration example" handout of a plan of operations available upon request. The plan of operations and amendments to the exploration license requires the same level of information as is found in the U.S. Forest Service Plan of Operations. The exploration license is renewed annually on application and payment of renewal fee.

◆ **Specific Requirements**

1. **File application for an Exploration License** in duplicate, on forms provided by the Department of Environmental Quality (DEQ).

Information required:

- a. Narrative describing the exploration plan of operation and reclamation plan;
 - b. Legal description and county where proposed activity would occur; and
 - c. Map(s) showing the location of the project area and all proposed disturbances. It is recommended that two maps be submitted: one small-scaled showing the general project area and access routes; one large-scaled showing detail of proposed disturbances and pre-existing disturbances.
2. **Fee of \$5.00** (for new license and annual renewal — not required for each individual project covered by the statewide license).
 3. **Drill hole plugging.**
 4. **Reclamation performance bond** in a form and amount determined by the Department.
 5. **Annual report of activities** (on exploration license renewal form).

◆ **Reclamation Standards**

An exploration licensee must agree to the reclamation of all areas of surface disturbance resulting from the exploration activities (ARM 26.4.103-105). The reclamation plan shall provide that reclamation activities, particularly those related to erosion control, to the extent feasible, shall be conducted simultaneously with the exploration activities and in any case shall be initiated promptly after completion or abandonment of the project. In the absence of an order by the Department providing a longer period, reclamation shall be completed not more than two years after completion or abandonment of the exploration project. For specific construction and operating requirements for exploration activities see the Montana Hard Rock and Placer Exploration License Program Manual; Requirements, Policies, Procedures and General Information which is available from the Permitting and Compliance Division — Hard Rock Program of the Department.

All drill sites and spoils from discovery pits or other excavations must be regraded and seeded or planted, if feasible, in the first appropriate season following completion of the work. Upon abandonment, and closure, exploration roads must be recontoured (to the extent feasible) and adequately prepared for suitable revegetation. Revegetation must be undertaken in the first appropriate season following abandonment, closure, and soil preparation.

◆ **Drill Hole Plugging Requirements**

All hard rock exploration drill holes shall be plugged at the surface five to ten feet with cement.

Exploration drill holes shall be plugged with bentonite or a similar compound from the bottom of the hole to within five to ten feet of the surface, and with cement from the top of the bentonite to the surface if one or more of the following conditions apply:

1. Two aquifers are intercepted.
2. One aquifer is intercepted and an existing or potential beneficial use (domestic, agricultural or fish/wildlife water supply) exists.
3. One or more artesian aquifers is intercepted causing either surface flow or significant water rise in the hole.
4. The potential exists for downward water loss from an aquifer (cascade effect) as determined by the Department or other appropriate regulatory agency.

All casing and/or collar pipe shall be removed or cut off at least eighteen inches below the surface. For drill holes located on cropland, all casing and/or collar pipe shall be removed at least twenty-four inches below the surface, and the surface cement drill hole plug must not extend into the top twenty-four inch zone.

Exceptions may be granted by the Department and/or other appropriate regulatory agencies for certain circumstances. For example, if an operator drills holes in a pioneered exploration road that will be fully reclaimed (pulled back to contour), and all of the holes are presently dry and would likely remain dry year-round based on the known hydrogeology of the area, hole plugging is probably unnecessary. Another example may involve placer drill holes. Generally, if shallow placer holes are drilled using a churn drill or similar equipment in alluvium adjacent to a live stream, the holes will almost always be obliterated as the drill is withdrawn, leaving no evidence of the hole. Other exceptions may be made by the appropriate regulatory authority as dictated by site-specific hydrogeologic and topographic situations.

◆ **Reclamation Surety Requirements**

An applicant for an exploration license must file with the Department of Environmental Quality a performance bond payable to the State of Montana with surety satisfactory to the Department of Environmental Quality. In lieu of such bond, the applicant may file with the state a cash bond deposit, an assignment of a certificate of deposit, or an irrevocable letter of credit. The bond shall not be less than the estimated cost to complete the reclamation of the disturbed land as determined by the DEQ.

A blanket performance bond covering two or more operations may be accepted by the state. Such blanket bond shall adequately secure the total reclamation costs of all projects combined. For surety bonds, certificates of deposits and irrevocable letters of credit, only Montana DEQ forms will be accepted. These forms are available upon request from the Montana DEQ.

The Department of Environmental Quality is required by law to hold a bond on all exploration activities. The U.S. Forest Service and Bureau of Land Management also have bonding authority on lands under their jurisdiction. On Forest Service and Bureau of Land Management lands, the state and Forest Service or Bureau of Land Management calculate a bond that is acceptable to both agencies. The bond is made out to both agencies and can be submitted to either agency. The bond cannot be released until both the state and Forest Service or Bureau of Land Management approve of the reclamation.

◆ **Exploration & Mining on State-Owned (School Trust) Lands**

Prior to accessing Montana's state-owned (school trust) lands for the purposes of mineral reconnaissance, prospecting, exploration or mining, the operator must first secure a mineral lease and approval from the Montana Department of Natural Resources & Conservation (DNRC) — Trust Land Management Division. This requirement is in addition to specific exploration and mining permits that also must be obtained from the Montana DEQ. Think of DNRC as the agency charged (by the Montana Constitution) to manage the state's surface and mineral resources for the School Trust Fund, to ensure a maximum return to the fund from these lands within legislative operational and environmental sideboards. The Montana DEQ issues permits under statutes related to mine reclamation, water quality, air quality, and other environmental resources; much of DEQ's authority in these areas encompasses all types of land (state, federal & private). When exploration or mining-related activities are proposed on state land, DEQ works closely with DNRC during the permit process.

OTHER AGENCY CONTACTS

Montana Department of Natural Resources & Conservation (DNRC)
Trust Land Management Division
Minerals Management Bureau
1625 Eleventh Avenue
P.O. Box 201601
Helena, Montana 59620
406/444-2074 Fax: 406/444-2684



STATE OF MONTANA
 DEPARTMENT OF ENVIRONMENTAL QUALITY
 PO BOX 200901
 HELENA, MONTANA 59620-0901

EXPLORATION LICENSE
 Pursuant to Title 82, Chapter 4,
 Part 3, MCA; requiring the
 licensing of persons engaged in mineral
 exploration and related activities.

LICENSE NO. _____

This license, when executed by the Administrator of the DEQ Permitting & Compliance Division and the Licensee, shall authorize the Licensee to explore for minerals in the State of Montana, in accordance with and subject to the exploration plan of operations and exploration map submitted with the application for this Exploration License.

The Licensee certifies that he shall reclaim any surface area disturbed by mineral exploration activities in accordance with the Montana Metal Mine Reclamation Act and Rules and Regulations pursuant to the Act.

The Licensee certifies that he is not in default of any reclamation obligations under Title 82, Chapter 4, Part 3, MCA.

NAME OF LICENSEE _____ ADDRESS _____ CITY, STATE/PROVINCE, ZIP/POSTAL CODE _____ SIGNATURE: _____ TITLE: _____ DATE: _____		Subscribed and sworn to me this _____ day of _____, 19____ Notary Signature _____ Residency (City & State or Province) _____ Notary Public for the State/Province of: _____ My Commission expires: _____
Date Received: _____ Fee Received: _____	License issued by: _____ Administrator, Permitting & Compliance Division Date: _____	
This License is Valid from _____, 19____ to _____, 19____		

Excerpts from Title 82, Chapter 4, Part 3, MCA:

"Exploration" means all activities that are conducted on or beneath the surface of lands and that result in material disturbance of the surface for the purpose of determining the presence, location, extent, depth, grade, and economic viability of mineralization in those lands, if any, other than mining for production and economic exploitation; and all roads made for the purpose of facilitating exploration..."

"Mineral" means any ore, rock, or substance (*other than* oil, gas, bentonite, clay, coal, sand, gravel, phosphate rock, or uranium) that is taken from below the surface or from the surface of the earth..."

"A person may not engage in exploration in the state without first obtaining an exploration license from the department. A license must be issued for a period of 1 year from date of issue and is renewable from year to year on application. An application for renewal must be filed within 30 days preceding the expiration of the current license and be accompanied by payment of a fee as required for a new license. A license may not be renewed if the applicant for renewal is in violation of any provision of this part. A license is subject to suspension and revocation as provided by this part."

"...a person or operator who violates a provision of this part, a rule or order adopted under this part, or a term or condition of a permit ...[or]...any director, officer, or agent of a corporation who willfully authorizes, orders, or carries out a violation of a provision of this part, a rule or order adopted under this part, or a term or condition of a permit [is subject to] a civil penalty of not less than \$100 or more than \$1,000 for each of the following violations, an additional civil penalty of not less than \$100 or more than \$1,000 for each day during which the violation continues, and an injunction from continuing the violation. If the violation created an imminent danger to the health or safety of the public or caused significant environmental harm, the maximum penalty is \$5,000 for each day of violation."

EXPLORATION PLAN EXAMPLE

LAST CHANCE EXPLORATION COMPANY

PO BOX 13
BUZZARD BREATH, NEVADA 89501

January 1, 1872

Hard Rock Bureau
Permitting & Compliance Division
Department of Environmental Quality
PO Box 200901
Helena MT 59620-0901

RE: Application for Exploration License

Dear Sir or Madam:

Enclosed is Last Chance Exploration Company's (LCEC) application for an exploration license. The application package includes:

1. Application form [These two items ONLY if New Li-
2. \$5.00 filing fee ense]
3. Narrative describing the project activities and how they will be reclaimed.
4. The legal description and county where the proposed disturbances would take place.
5. A map showing the location of project activities and land ownership status (private, USFS, BLM, state-owned).

The following activities would occur in Sections 6, 7 & 8, T15N, R6W, Lewis and Clark County:

Roads

Four thousand (4,000) feet of new access road will be constructed on the ridge separating Ready Cash Gulch and Profit Creek. This temporary road will be constructed pursuant to the standards of ARM 26.4.103. Two hundred (200) feet of existing road will be reconditioned and a culvert will be installed in Profit Creek to provide access to Adit No. A-2.

Trenching

Two trenches will be located on the ridge separating Ready Cash Gulch and Profit Creek. These trenches will be approximately 150 feet long, 3 feet wide, and 12 feet deep, and will be excavated using a rubber-tired backhoe. If competent bedrock is encountered, the trenches may not reach the full 12-foot depth. Topsoil will be piled to one side of the trench and the remainder of

the overburden material will be piled on the opposite side of the trench.

Drilling

Drill pads will be prepared at locations DS-1, DS-2, and DS-3. The pads will be about 35 feet long and 20 feet wide (700 square feet). All topsoil will be saved to one side prior to site leveling. Pits will be dug on the sites to contain drilling mud and excess cuttings. Initially, holes will be drilled with an RVC drill rig; later, these holes may be deepened with a core drill (Longyear 44 or equivalent).

Adits

Adit Nos. A-1 and A-2 will be located as indicated on the map. Topsoil will be stripped ahead of the portal establishment and waste-dumping at A-1. A safety door will be placed on the portal to prevent unauthorized entry.

Adit No. A-2 exists but was last used in 1938 and has since caved. The portal will be excavated to competent rock, at which point it will be timbered and a safety door attached. A small seep of water (~5 gpm) presently flows from the caved material in the adit. An increased flow rate is expected when the caved material is removed; because of this, a percolation/settling pond will be constructed immediately adjacent to the portal. A surface water discharge (MPDES) permit will be obtained from the Water Quality Bureau (Montana Department of Health & Environmental Sciences) prior to reopening the adit if there is the possibility of a discharge to Profit Creek.

Reclamation

The following procedures will be used in the reclamation of the above-described activities:

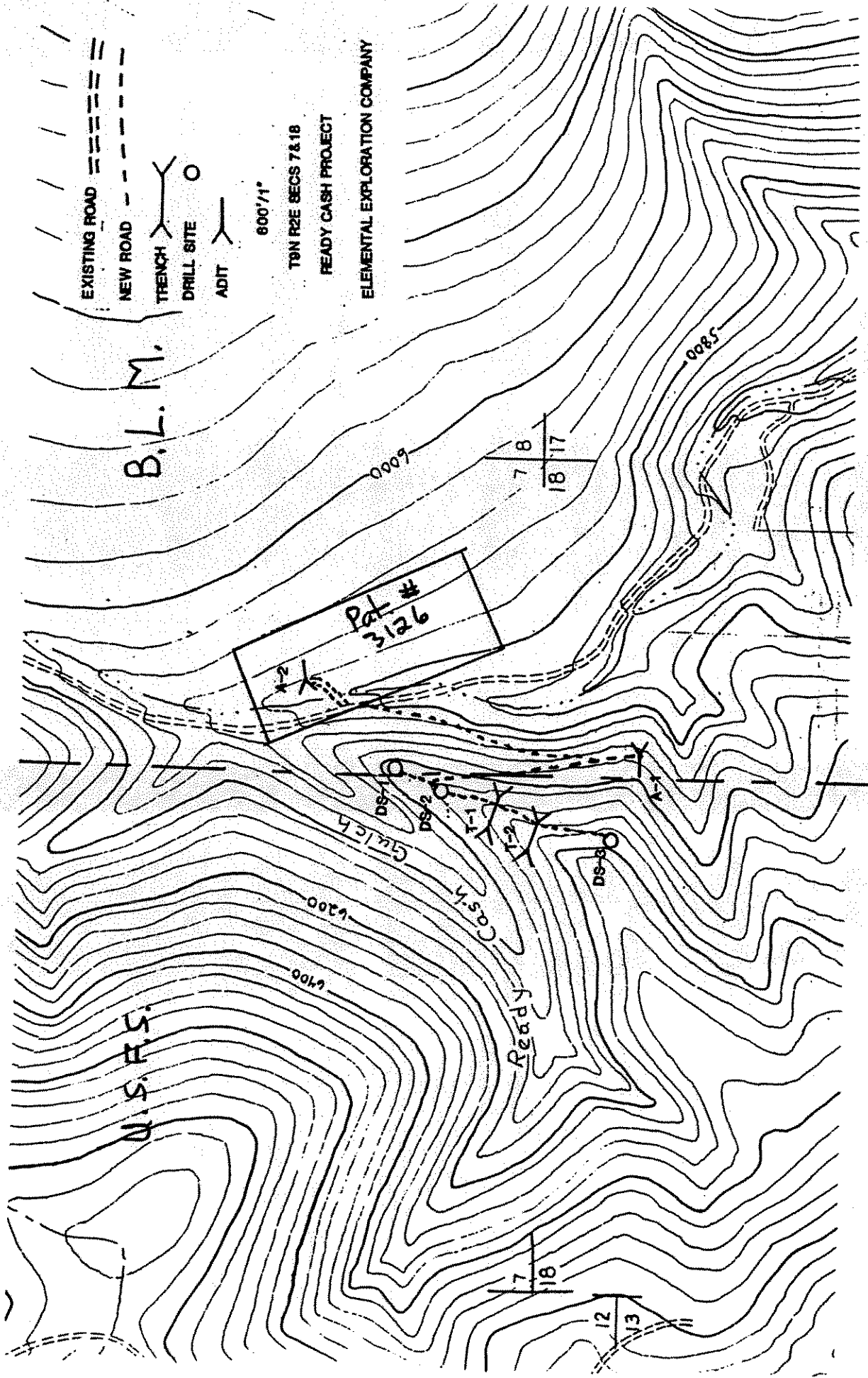
1. All available soil and soil materials will be salvaged and stockpiled ahead of construction or expansion of existing disturbances.
2. Drill fluids (EZ mud, etc.) and cuttings will be retained on site.
3. After drilling is complete, drill fluids and cuttings will be removed, disposed of down the drill hole, or buried.
4. Collar casing will be removed or cut off below ground level.
5. After removal of casing or collar pipe, all drill holes will be plugged at the surface (~5-10 feet) with cement or bentonite. If two aquifers are intercepted OR if one aquifer is intercepted and a beneficial use is nearby (i.e. domestic or livestock water supply), the hole will be plugged at depth with cement or bentonite.

6. If an artesian aquifer is intercepted, the hole will be plugged at depth prior to removal of the drill rig.
7. Drill sites will be graded to the original contour.
8. The first 25 feet of the adits will be backfilled with inert waste rock or riprap which in itself will not contribute to the degradation of any discharge water.
9. Compacted surfaces will be ripped or otherwise loosened and waste piles will be recontoured to allow for successful vegetation establishment.
10. All access and drill roads built by the company will be pulled back to the original contour as much as possible. Where this is not possible (as determined by the Department), compacted surfaces will be ripped or otherwise loosened, drainage structures will be installed in accordance with ARM 26.4.103, and the road will be closed to access. All previously-existing roads that were reconditioned by the company will be stabilized with vegetation and erosion-control structures.
11. Trenches will be backfilled with excavated material.
12. All refuse, buildings, track and other facilities associated with exploration activities will be collected, removed, and disposed of in proper disposal sites.
13. Salvaged topsoil will be applied over disturbed areas.
14. Disturbed areas will be revegetated with a seed mixture that is approved by the Department.
15. The requirements of the Montana Water Quality Bureau will be fulfilled if a discharge occurs.
16. Any other reclamation requirements of the U.S. Forest Service or the Bureau of Land Management will be fulfilled [if the project is on federal lands], and any other reclamation requirements of the Department's Forestry or Lands Divisions will be fulfilled [if the project is on state-owned lands].

The Department will be contacted and a mutually-agreeable time will be arranged for an on-site inspection and the establishment of a reclamation bond amount.

Sincerely,

Findmore N. FASTER
District Geologist



LAST CHANCE EXPLORATION COMPANY
 P.O. BOX 13
 BUZZARD BREATH, NEVADA 89501

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
PO BOX 200901
HELENA MT 59620-0901
PHONE:(406)444-4970, FAX:(406)444-1923

Hard Rock Reclamation Surety Bond

BOND NO. _____

_____, as Principal, and _____, a corporation organized and existing under the laws of the State of _____ and duly authorized to transact business in the State of Montana, as Surety, are held and firmly bound to the State of Montana, acting through the Department of Environmental Quality, in the penal sum of (\$ _____) DOLLARS, for the payment of which sum, well and truly to be made, we bind ourselves, and each of our legal representatives, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal holds or has applied for a license/permit from the Department of Environmental Quality to conduct exploration/mining operations on the following premises, to wit:

NOW, THEREFORE, the conditions of this obligation are such that if the above bonded Principal shall, in conducting such mining operations faithfully perform the requirements of the license/permit, the reclamation plan and Title 82, Chapter 4, Part 3, MCA, relating to mining and the Rules and Regulations adopted pursuant thereto, then this obligation shall be exonerated and discharged and become null and void; otherwise to remain in full force and effect. The requirements by this bond include those requirements imposed on Principal as a result of those activities that occurred prior to issuance of this bond and before the date the bond is canceled or released or substitute bond is approved. If this bond is forfeited, the State of Montana shall be entitled to the entire amount of this bond without regard to actual damages.

PROVIDED, however, the Surety shall not be liable under this bond for an amount greater in the aggregate than the sum designated in the first paragraph hereof, and shall not be liable as respects any obligation related to mining operations performed after the expiration of thirty (30) days from the date of the mailing by the Surety of a cancellation notice directed to the Principal and the Department of Environmental Quality, Helena, Montana. The bond shall remain in full force and effect as respects any obligations related to mining operations performed prior to the effective date of such cancellation unless the principal files a substitute bond, approved by the Department of Environmental Quality, or unless the Department of Environmental Quality shall otherwise release the Surety.

Signed, sealed and dated this _____ day of _____, 19____.

Signature: Resident Agent

Signature: Principal

Mailing Address

Title

Telephone No.: _____

Mailing Address

(Surety's Seal)

Signature: Surety

Approved _____, 19____
Department of Environmental Quality

Title

By: _____

Mailing Address

Title: _____

SAVINGS CERTIFICATE ASSIGNMENT

SPECIAL INSTRUCTIONS:

1. The Department of Environmental Quality must have the original of this form, and the original of the Certificate.
2. The Certificate must be made out in both the Assignor's AND the Department of Environmental Quality names.
3. The Acknowledgments of numbers 9 and 10 must be filled out in their entirety. (Number 9: If you are signing as an individual please fill out the "PERSONAL ACKNOWLEDGMENT"; if you are signing for a corporation, please fill out the "CORPORATE ACKNOWLEDGMENT".) (Number 10: The signature that needs to be notarized is that of the person who is signing for the Bank.)

1. For value received, _____, Assignor, does hereby assign, transfer, and set over to the State of Montana, Department of Environmental Quality (hereinafter called the State), all rights and interests in a Savings Certificate No. _____ in the amount of \$ _____, payable on or after _____, issued by _____ (hereinafter called Bank), and payable to _____ the Assignor herein.
2. The Assignor makes this assignment pursuant to Title 82, Chapter 4, Part 3, MCA, and _____ No. _____ issued by the State to _____ on _____, 19____.
3. The Assignor may withdraw or otherwise dispose of any earnings attributed to the Savings Certificate while the same is assigned to the State.
4. The Assignor may, with the consent of the State, replace or renew a Savings Certificate once it has expired, or is voided by the Bank and the Assignor shall be entitled to the rights as laid out in Clause 3 with respect to the new Savings Certificate. A new Savings Certificate Assignment shall be executed if the Savings Certificate is replaced.
5. The State may at any time after the Contractor fails to fully comply with all requirements of Title 82, Chapter 4, Part 3, MCA, and the Rules and Regulations thereunder and the said permit or contract, and after giving written notice to the Assignor, surrender the Savings Certificate to the Bank in exchange for money.
6. The Savings Certificate shall be held by the State of Montana during the term of this Assignment.
8. The Assignor hereby authorizes and directs the Bank to pay the above-described Savings Certificate as instructed by the State until such time as the Bank shall receive the Release provided for below. The Bank shall not be liable to inquire whether there has been performance by Contractor or to see to the application of any moneys paid on instruction of the State, and in such matters the Bank may rely upon the instructions of the State executed over the signature of the person, or his designee, appearing under the Acceptance below without the need to verify the authority of such person. Nothing herein shall prevent the State from designating a person authorized to act for it in another lawful manner.

9. Signed and dated at _____, Montana, this _____ day of _____, 19____.

(Address) _____
(City/State/Zip) _____

(Assignor's signature)

PERSONAL ACKNOWLEDGMENT

STATE OF _____)
County of _____) ss.

BANK ACCEPTANCE

10. The _____ Bank, as witnessed below by the signature of a duly authorized officer, hereby recognizes this above assignment of Savings Certificate No. _____ in the amount of \$ _____ this _____ day of _____, 19__.

(Bank) (Authorized signature)

(Address)

(City/State/Zip)

CORPORATE (BANK) ACKNOWLEDGMENT

STATE OF _____)

County of _____) ss.

On this _____ day of _____, in the year _____, before me, _____, notary public for the State of _____, personally appeared _____ known to me to be the _____ of the corporation that executed the within instrument and acknowledged to me that such corporation executed the same.

(Seal)

Notary Public for the State of _____
Residing at _____
My Commission Expires _____

STATE'S ACCEPTANCE

11. The State of Montana, Department of Environmental Quality, hereby accepts the foregoing assignment of the Savings Certificate No. _____ drawn on _____ in the amount of \$ _____ this _____ day of _____, 19__.

(Authorized signature)

RELEASE

12. The above assignment of Savings Certificate No. _____ drawn on _____ in the amount of \$ _____ is hereby released. The authorized signature below shall witness the termination of the State's interest in the Assignment.

(Authorized signature)

13. I, _____, Assignor in the above Agreement, recognize by my signature below the release of the assignment as carried out in Clause 7 above. Signed this _____ day of _____, 19__.

(Authorized signature)

IRREVOCABLE LETTER OF CREDIT
For Hard Rock Exploration License

Letter of Credit No.: _____
Date: _____
Amount: _____
Commencing: _____
Expiration Date: _____

**TO: DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
PO BOX 200901
HELENA MT 59620-0901**

Gentlemen:

At the request of _____, the licensee under Exploration License No. _____ to conduct mining operations in _____, Montana (the "Licensee"), we hereby establish our Irrevocable Letter of Credit in your favor and authorize you to draw on us from time to time in whole or in part, up to the aggregate amount of _____ (\$ _____) and we engage with you that all drafts drawn under and in compliance with the terms of this credit will be fully honored by us if presented at the bank office on or before _____ .M., Mountain time on a business day on or before _____, 19__ or any extended date (the "Expiration Date"), provided:

1. This Irrevocable Letter of Credit shall be automatically extended for additional periods of one year from the present or each future Expiration Date unless we have notified you in writing, not less than thirty (30) days before such date, that we elect not to renew this Letter of Credit. Our notice of such election shall be sent by registered mail to the Department of Environmental Quality, Permitting & Compliance Division, PO Box 200901, Helena, MT 59620-0901.
2. Any draft(s) drawn by you under this Letter of Credit shall be accompanied by your certification that either of the following alternatives (a) or (b) exist:
 - (a) "The State has (i) issued written notification that the Licensee has failed to commence and complete reclamation in accordance with the exploration license issued under 82-4-332, MCA; and (ii) the State has sent such written notification by certified mail, return receipt requested, to the Licensee as well as to the Bank"; or
 - (b) "The State has received the bank's notice of election not to renew this Letter of Credit and the State has not been provided with bond(s), letter(s) of credit, undertaking(s), agreement(s) of indemnity, or other instrument(s), satisfactory to the State as a replacement for this Letter of Credit or for any other bond or other assurances required by the State of the Licensee to assure that the Licensee is conducting its mining operations faithfully in accordance with the requirements of the permit, the rules and Title 82, Chapter 4, Part 3, Montana Code Annotated."
3. The Department of Environmental Quality is not required to have commenced or completed reclamation or given the Licensee or us such opportunity before drawing on this Letter of Credit and we are not authorized to inquire whether such violation or failure has occurred.

4. In the event that we have provided you with the notice of election not to renew this Letter of Credit and, on or before the Expiration Date, we have not received from you a certificate confirming that the Licensee has provided you with bond(s), letter(s) of credit, undertaking(s), agreement(s) of indemnity, or other instrument(s), satisfactory to you as a replacement for this Letter of Credit, we shall forward to you on the Expiration Date, a bank check for the full amount of this Letter of Credit less any amount previously drawn by you. Failure to provide the certificate required by this paragraph shall be deemed a documentary draft or a documentary demand for payment.

5. This Letter of Credit is subject to Uniform Customs and Practices for Documentary Credit (1993 Rev.), ICC Publication No. 500 and the Uniform Commercial Code of Montana, unless such customs and practices are altered herein.

6. We hereby represent and affirm that the execution of this Letter of Credit will not constitute a violation of any law or regulation which may limit the amount of credit which can be extended by this bank to any single borrower or customer.

7. Your acceptance of this Credit will constitute your agreement that we shall not be liable under this Letter of Credit for an amount greater, in the aggregate, than the sum designated in the first paragraph hereof, and shall not be liable as respects any obligation related to mining operations performed after the expiration of thirty (30) days from the date of the mailing by us of a notice not to renew this Letter of Credit.

Very truly yours,

_____	_____
(Bank)	(Address)
BY: _____	_____
	(City, State, Zip)
Its _____	_____
(Title)	(Phone Number)

ACKNOWLEDGMENT

State of _____)
County of _____) s.s.

On this _____ day of _____, in the year _____, before me, a Notary Public for the State of _____, personally appeared _____, known to me to be the person who executed this letter of credit on behalf of the corporation therein named and acknowledged to me that such corporation executed the same.

(SEAL)

Notary Public for the State of _____
Residing at _____
My Commission expires _____

For letters of credit in excess of \$100,000.00, please attach authorization of Bank under its corporate seal for officer signing this letter of credit to issue same.

For Department of Environmental Quality Use
LETTER OF CREDIT ACCEPTANCE

Pursuant to 82-4-338, MCA, I hereby accept Irrevocable Letter of Credit No. _____

of the _____, as bond for Exploration License
(Bank Name)

Number _____, submitted by _____,
(Operator)

of _____
(Address, City, State, Zip)

Approved by DEQ Legal Counsel: _____

Jan P. Sensibaugh, Administrator
Permitting & Compliance Division
Department of Environmental Quality

(Date)

NEVADA

RESPONSIBLE AGENCY

Division of Environmental Protection
Bureau of Mining Regulation and Reclamation
333 W. Nye Lane
Carson City, Nevada 89710

Telephone: 702/687-4670

Contact: Leo Drozdoff

REGULATORY AUTHORITY

1. Nevada Revised Statutes 519A

PERMITTING REQUIREMENTS

◆ General Requirements

A permit issued by the Division of Environmental Protection is required for any person engaged in an exploration project in the state of Nevada. An exploration project is defined as "... all activities conducted by a person on or beneath the surface of land for the purpose of, or in connection with, determining the presence, location, extent, depth or grade of any mineral, which affects the surface." A permit is not required for a small exploration project, defined as "... an exploration project which is limited to a surface disturbance of not more than five acres in any calendar year." To determine the area of the surface disturbed, all land disturbed and left unreclaimed by an operator within a one mile radius of the center of the project must be considered.

If an exploration project takes place on public lands administered by the Bureau of Land Management (BLM), the U.S. Forest Service, or another federal land management agency, a plan of operations which has been approved by the federal agency, and is consistent with the requirements of NRS 519A, may be substituted for the permit required by the Nevada Division of Environmental Protection (NDEP). The BLM and state agencies including the NDEP and Mined Land Reclamation, work to cooperatively review the plan of operations, and the BLM remains the lead agency. A new or amended Plan of Operation should be submitted to the federal agency, and a copy concurrently filed with NDEP.

◆ **Specific Requirements**

1. The operator of an exploration project must apply for a permit, on a form approved by the state. Contact Bureau of Mining Regulation and Reclamation for the application form.

Information required:

- a. Applicant's name, address and telephone number;
 - b. If the applicant is a corporation or other business entity which is required to have a resident agent, the name, address and telephone number of its resident agent and its principal officers or partners;
 - c. A complete plan of reclamation;
 - d. The estimate of the cost of executing the plan for reclamation required;
 - e. A statement that the applicant agrees to assume responsibility for the reclamation of any surface area affected by the exploration project; and
 - f. A map which depicts the area to be covered by the surety.
2. An interim permit for an exploration project is allowed if:
 - a. Project disturbs greater than five acres, but less than twenty acres, including public and private lands;
 - b. Employs best management practices for control of erosion as described in the Nevada Diffuse Source Handbook of Best Management Practices;
 - c. File permit before disturbing greater than five acres;
 - d. Provide acceptable surety, file applicable fee, and provide responsibility statement;
 - e. No outstanding notice of non-compliance;
 - f. All above is in place, applicant can proceed with exploration project while the Division of Environmental Protection processes the application; and
 - g. Interim permit stays in effect until final permit is issued or denied.
 3. An applicant for a permit for an exploration project must submit to the Division on Environmental Protection:
 - a. An application fee of \$1.50 for each acre of affected and unreclaimed public land included in the plan for reclamation;
 - b. An application fee of \$2.50 for each acre of affected and unreclaimed privately owned land included in the plan for reclamation; and
 - c. An annual fee of \$100 for each exploration project for which a permit has been issued by the Division or an application for a permit has been submitted to the Division.

4. The Division of Environmental Protection issues a permit or Notice of Intent to deny within fifteen days on federal land, and 30 days on private land, after circulation of public notice to interested persons and notice in a newspaper of general circulation in the geographic area of the project.
5. An operator must notify the Division of Environmental Protection within 90 days of completion or abandonment of a project.

◆ **Reclamation Standards**

The reclamation plan must include a description of the reclamation methodology; location and approximate length and width of access roads; measures taken to minimize sedimentation; an estimate of the acreage to be disturbed; the anticipated schedule for the project and reclamation; the proposed use of the area if different than the pre-exploration use; and activities for reclamation during and after the project. Topsoil or growth medium must be removed and stockpiled if required for revegetation pursuant to the post-mining land use.

Reclamation is encouraged concurrently, but must be initiated within two years after completion and three years after temporary closure of a project. Extensions can be granted for good cause.

◆ **Drill Hole Plugging Requirements**

Exploratory drill hole plugging regulations in the State of Nevada are administered by the Nevada State Engineer's office in the Nevada Division of Water Resources. Applicable regulatory provisions are currently set out in NAC Chapter 534.450, Sec. 30. These new provisions for boreholes became effective Feb. 4, 1997. These borehole provisions include:

1. Boreholes may be drilled or plugged by persons not licensed as well drillers, and permits to appropriate water or waivers to this regulation are not required, but any use of water from a borehole is prohibited. Blast holes, seismic shot holes, etc. are boreholes subject to the provisions of this regulation.
2. The borehole driller, or project operator, must maintain a record of the drilling, which includes: borehole surveyed location, dates of drilling and plugging, depth and diameter of borehole, depths of any ground water, and methods, volumes and materials used in plugging.
3. The borehole must be plugged within 30 days after abandonment or the use of the borehole is discontinued. The hole must be plugged by placing grout or cement by tremmie pipe in an upward direction from the bottom of the borehole to not less than 50 feet above the uppermost saturated strata or the surface. Section 31 of the regulations provides specific details of acceptable grouts and cements. Bentonite pellets designed for borehole abandonment are an acceptable alternative.

4. If contaminated water, or artesian conditions, are encountered in a borehole, the strata must be contained to prevent commingling with, or impairment of, other water or strata.
5. If casing is set in a borehole, the borehole must be completed as a well pursuant to all regulatory requirements, or the casing must be completely removed from plugging.

◆ **Reclamation Surety Requirements**

The operator must provide surety in an amount sufficient to ensure reclamation of the entire area to be affected by the project; or a portion of the area to be affected if, as a condition of the issuance of the permit, filing additional surety is required before the operator disturbs areas not covered by the initial surety. The following types of surety are allowed:

1. Trust fund.
2. A bond.
3. Irrevocable letter of credit.
4. Insurance.
5. A corporate guarantee.
6. Any combination of the above.

State-wide bonds are also allowed. In addition, a bond-pool for small miners managed by the Nevada Division of Minerals is provided.

Surety must be reviewed at least every three years to assure its adequacy.

OTHER AGENCY CONTACTS

Nevada Department of Conservation and Natural Resources

Division of Water Resources
State Engineer
Capitol Complex
123 W. Nye Lane
Carson City, Nevada 89710
702/687-4380

Nevada Department of Business and Industry

Division of Minerals
400 West King Street, Suite 106
Carson City, Nevada 89710
702/687-5050

NEW MEXICO

RESPONSIBLE AGENCY

**Mining and Minerals Division
Energy, Minerals and Natural Resources Department
2040 South Pacheco Street
Santa Fe, New Mexico 87505**

Telephone: 505/827-5970

Fax: 505/827-7195

REGULATORY AUTHORITY

1. New Mexico Mining Act, Sections 69-36-1 through 69-36-20, NMSA 1978.
2. New Mexico Mining Act Rules, 19 NMAC 10.2.

PERMITTING REQUIREMENTS

◆ **General Requirements**

An exploration permit is required for exploration operations after December 31, 1994. There are drill hole reporting, plugging and closure report requirements for drill holes penetrating a water stratum (NMSA 1978, section 69-3-6).

According to the rules promulgated under the New Mexico Mining Act, explorationists must submit an application for exploration operations not less than 120 days prior to the anticipated date of commencement. Renewal applications are to be filed not less than 30 days prior to expiration.

Permits for exploration operations are not required for exploration operations conducted within the approved permit area of a new or existing mining operation.

The 1994 Regulations make a distinction between "Minimal Impact Exploration Operations" and "Exploration." Minimal Impact Exploration operations are those which meet the definition of minimal impact in the Rules and are less than five acres of disturbance.

Minimal Impact Exploration is addressed under Subpart 3 of the Mining Act Rules. Exploration is addressed under Subpart 4.

◆ **Specific Requirements**

Stringent requirements for obtaining an Exploration Permit are specified in Subpart 4 of the 1996 Regulations under the following headings:

Timing of Submittal and Deadline for Obtaining Approval

Permit Application Requirements

Performance and Reclamation Standards and Requirements

Compliance with Other Applicable Laws

Terms, Issuance and Renewal

Permit Modifications and Revisions

Termination Report

Details of the requirements for obtaining an Exploration Permit may be found in the 1996 Regulations.

◆ **Reclamation Standards**

The 1996 Regulations require a Reclamation Plan to be submitted as part of the Exploration Permit Application and Minimal Impact Exploration permit application.

◆ **Reclamation Surety Requirements**

The 1996 Regulations require Financial Assurance for Subpart 4 exploration operations (Rule 12), the amount to be determined by the Director.

◆ **Fees**

The fee for a minimal impact exploration permit is \$100 and the fee for an exploration permit is \$250.