# GREYHOUND PROJECT
## BASELINE WATER QUALITY ASSESSMENT
### Custer County Idaho

**Prepared for the Greyhound Mining and Milling Company**
**4414 Gekeler Lane**
**Boise, Idaho 83715**

**By G. Peter Parsley**
**Environmental Division**
**Nelson Construction Company**

# GREYHOUND PROJECT
## BASELINE WATER QUALITY ASSESSMENT

**Location and Access:**

The Greyhound Property is located in the Seafoam Mining District, approximately 140 miles northeast of Boise, Idaho in sections 4 and 5 of Township 14 North, Range 11 East (Figure1). Access to the area from State Highway 21 at Cape Horn is obtained by traveling north 16 miles via Forest Road 008 to the intersection of Forest Road 011, then north four miles to the Greyhound site. The property consists of 15 patented and 37 unpatented mining claims in the Sulphur Creek drainage. The original patented claim group and mineral survey plats are included in Appendix A.

**Geography and Climate:**

The glaciated Salmon River Mountains comprise the principle mountain range throughout the region surrounding the Greyhound Property. Topographical features near the study area include Greyhound Mountain (8,995 feet) and Sulphur Creek, which enters the Greyhound Property at an elevation of 7,000 feet and leaves the property to the east at an elevation of 6,600 feet.

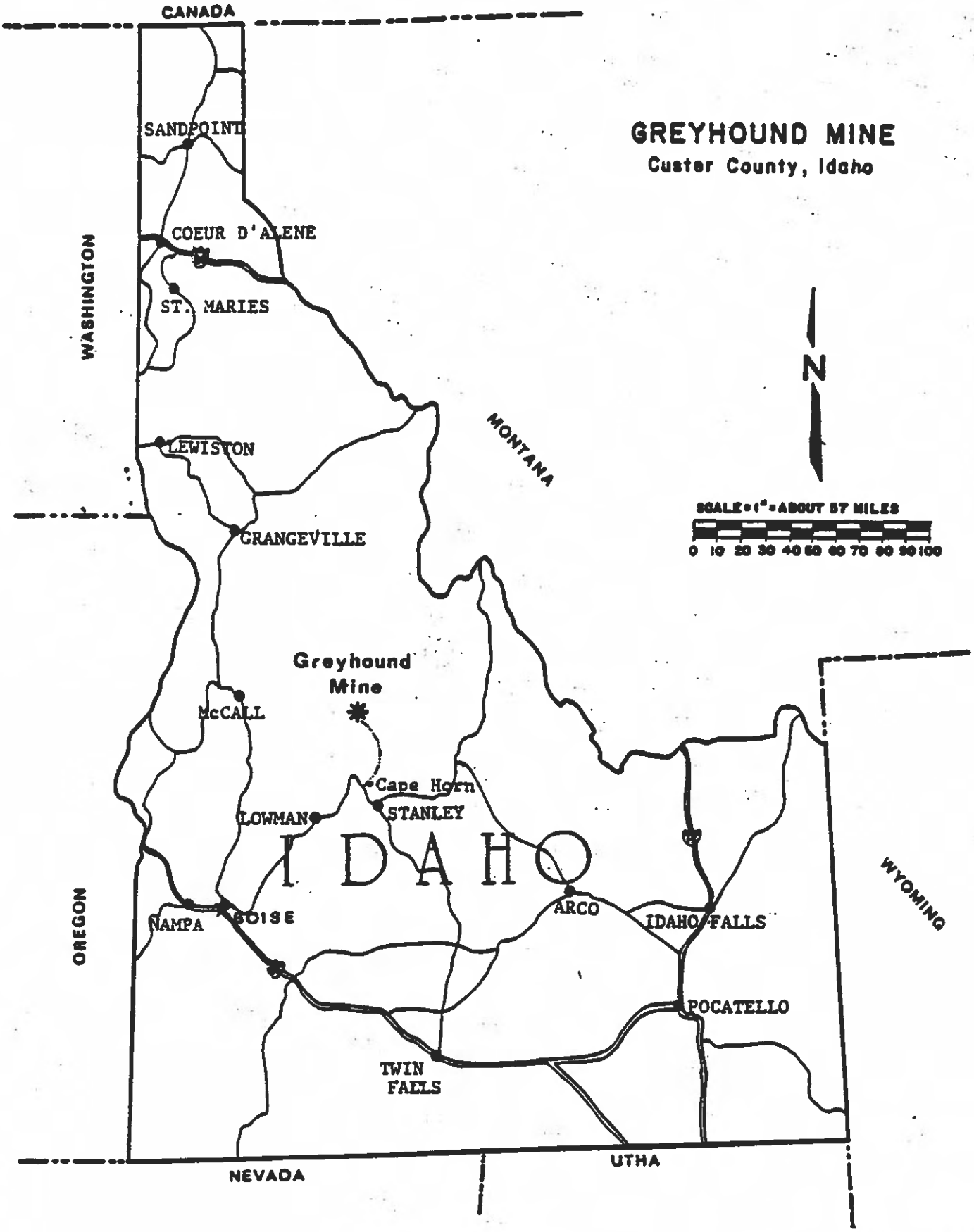
The weather at the study area is characterized by long, harsh winters and cool dry summers. The central Idaho region generally has a westerly airflow with some extratropical cyclones approaching from the southwest or northwest. A majority of the precipitation is received during the winter and spring months.

Temperature extremes range from $-50^{\circ}$ F to $95^{\circ}$ F. Freezing temperatures may occur throughout the year with no definite frost-free period. Wind speeds generally range form 5 to 20 knots. Average annual precipitation is approximately 30 inches. The majority of the precipitation falls during the winter and spring months (Soil Conservation Service, 1980).

**History:**

The Greyhound mine was discovered in the 1880's. The mine was operated from 1898 to 1910. A smelter was constructed at the site in the 1890's. The mine shut down in 1910 due to poor metals prices, and no work was done on the property until 1974 when the property was purchased by Mr. Harry Melton and placed into the newly formed Greyhound Mining and Milling Company.

Mr. Melton operated a pilot test plant in 1979 and 1980 to identify suitable means to extract silver from the Greyhound ore. In 1980, Noranda Exploration, Inc. conducted a geological evaluation of the property. In 1981 Eastern Lease Holders and Watts, Griffis and McQuat, Inc. conducted a detailed sampling and mapping program for comparison with the Noranda work.




| | | | |
|---|---|---|---|
| DATA | | LOCATION MAP | FIGURE 1 |
| DRAWN | | | |
| SCALE | | | |
| DATE | | | |

The Greyhound Mining and Milling Company was obtained by Mr. Dan Yanke in the mid 1980's. Mr. Yanke operated the pilot test plant in the late 1980's, and for a short period of time in 1990.

A Plan of Operations and a bond was submitted to the Challis National Forest in 1990. The bond was amended in 1995 for the Pilot Test Plant tailings and access road. Copies of the approved Plan of Operations and bond calculations are included in Appendix B.

Modest exploration activities occurred at the site through the 1990's. United Silver Mines, Inc. entered an exploration agreement with the Greyhound Mining and Milling Company in 1999 to map and delineate the Greyhound ore body.

**Geology:**

The Greyhound Property is located in the quartz monzonite, granodiorite, and quartz diorite facies of the Idaho Batholith. Several dikes ranging from rhyolite to lamprophre crosscut the property. The dikes follow a weak north-south, east-west system of jointing characteristic of the Idaho Batholith, while shear zones strike generally northwest and dip from 60° to 80° southwest.

Sulfide mineralization occurs throughout the district as lenticular masses arranged en echelon within silicified shear zones. Sulfides identified in hand specimens include pyrite, chalcopyrite, galena, sphalerite, phyrrhotite, tetrahedrite, and arsenopyrite.

**Water Sampling Program:**

Eight surface water samples were taken July 9th, 1999 at the Greyhound property. Parameters for the water sample analysis are listed in Table 1. Samples were collected at six locations along Sulphur Creek, the mancamp spring, and the Rufus adit (Figure 2).

Samples at Stations 1,2, and 3 were taken to identify background water quality conditions along Sulphur Creek near an un-named tributary up stream of the Greyhound Property. Samples taken at Stations 4, 5, and 6 were taken to characterize water quality along Sulphur Creek below the Historic Greyhound Mill and at the confluence of another un-named tributary down stream from the Rufus adit (Table 2). Individual Laboratory Analysis Reports are included in Appendix C.

**Methods:**

Water samples were taken by Pete Parsley, with the Environmental Division of Nelson Construction Company. All hygienic precautions were taken to ensure that a clean sample was obtained including the washing of hands and the absence of any chemical product on the body of the sampler or in the vicinity of the sample station.

**Table 1:** Summary of Water Quality Analysis

| PARAMETER | EPA METHOD |
|---|---|
| Digestion | EPA 200.9-11 |
| Aluminum | EPA 200.7 |
| Antimony Furnace | EPA 200.9 |
| Arsenic Furnace | EPA 200.9 |
| Barium | EPA 200.7 |
| Cadmium Furnace | EPA 200.9 |
| Calcium | EPA 200.7 |
| Chromium Furnace | EPA 200.9 |
| Copper | EPA 200.7 |
| Iron | EPA 200.7 |
| Lead Furnace | EPA 200.9 |
| Magnesium | EPA 200.7 |
| Manganese | EPA 200.7 |
| Mercury | EPA 245.1 |
| Selenium | EPA 200.9 |
| Silver | EPA 272.1 |
| Sodium | EPA 200.7 |
| Zinc | EPA 200.7 |
| Ammonia | EPA 350.1 |
| Nitrate | EPA 300.0 |
| Nitrogen Total Kjedahl | EPA 351.2 |
| Phosphorus Total | EPA 365.1 |
| Chemical Oxygen Demand | EPA 410.4 |
| Conductivity | EPA 120.1 |
| Cyanide Total | EPA 335.2 |
| Hardness | SM 2340 |
| Sulfate | EPA 300.0 |
| Total Dissolved Solids | EPA 160.1 |
| Total Suspended Solids | EPA 160.2 |
| Turbidity | EPA 180.1 |
| pH | EPA 150.1 |

Samples were collected in one quart plastic bottles. Four bottles of water were taken at each site for metals, cyanide, nitrates, and suspended solids analysis. The location, date, and time of the collection of each sample was noted in a logbook and registered on the chain of custody and transmittal sheet.

Sample locations were marked with the appropriate station number and flagged in the field. Sample locations were identified on a 1:24,000 scale map and plotted for future reference.

**Table 2:** Sample Identification and Locations

| Sample Identification | Location |
|---|---|
| Station 1 | 50 feet up un-named tributary of Sulphur Creek west of Greyhound Camp. |
| Station 2 | 50 feet above confluence of Sulphur Creek and un-named tributary west of Greyhound Camp. |
| Station 3 | 50 feet below confluence of Sulphur Creek and un-named tributary west of Greyhound Camp. |
| Station 4 | 50 feet above confluence of un-named tributary and Sulphur Creek east of Greyhound Camp. |
| Station 5 | 50 feet up un-named tributary of Sulphur Creek east of Greyhound Camp. |
| Station 6 | 50 feet below confluence of Sulphur Creek and un-named tributary east of Greyhound Camp. |
| Camp 1 | Spring located 500 feet north of Greyhound Camp. |
| Adit | The portal of the Rufus adit located approximately 1,050 feet up the un-named tributary east of the Greyhound Camp. |

The water samples were placed on ice in 60-quart coolers and were transported to Analytical Laboratories, Inc. in Boise, Idaho for analysis. Analytical Laboratories, Inc. is an EPA, FDA, and State certified laboratory located at 1804 North 33rd Street, Boise, Idaho 83703.

**Surface Soil Samples:**

Surface soil samples were taken at the historic Greyhound Mill Site and at the Pilot Plant Tailing Site south of Sulphur Creek. Toxicity Characteristic and Leachate Procedure (TCLP) analyses are pending on these samples. A metals analysis on the Pilot Plant Tailings Site was conducted in 1995 by Jeff Gabardi, Minerals Specialist with the Sawtooth National Forest. Gabardi's TCLP analysis of the tailing site is included in Appendix D.

**Findings:**

Overall the water quality at the site looks good with the exception of arsenic in the samples from the Adit and Stations 5 and 6. The background arsenic levels from the mancamp spring (Camp 1) and Stations 1,2, and 3 average 0.022 mg/l. This background level for arsenic may be associated with the intense arsenopyrite mineralization associated with hydrothermal alteration in Seafoam Mining District.

The United States Environmental Protection Agency (USEPA) drinking water standard for arsenic is 0.050 mg/l. Water samples from the Adit and Stations 5 and 6 have arsenic concentrations of 0.520 mg/l, 0.129 mg/l, and 0.068 mg/l respectively. A list of drinking water requirements is included with this report in Appendix E. While there appears to be no visible evidence of vegetative degradation adjacent to these sample sites, the samples exceed the drinking water standard for arsenic.

The elevated levels of arsenic at Stations 5 and 6 may be the result of the 50-gallon per minute spring at the Adit. Water from the adit flows into the unnamed tributary approximately 1,000 feet up stream from Station 5. Arsenic concentration at Station 6 appears to be diluted by the primary flow of Sulphur Creek.

Sample Station 4 does not appear to be influenced by arsenic concentrations higher than background. Station 4 is located 50 feet up stream from Station 6 and 50 feet up stream from the confluence of the unnamed tributary, which appears to be influenced by the Adit. Station 4 is located approximately 750 feet down stream from the historic Greyhound Mill Tailings. Station 4 does not appear to be influenced by these tailings and has an analytical signature similar to Stations 1,2, and 3.

Water sample pH ranged from 7.6 at the adit to 8.1 at Station 4 and Camp 1. The "basic" pH tendency for the complete suite of water samples may be associated with weathering of sodic and potassic feldspars common to quartz monzonite terrains. Evidence of argillic alteration is pervasive in intrusive rock adjacent to shear zones.

**Recommendations:**

Results of this baseline water quality analysis should be submitted to Mr. Bruce Schuld with the Idaho Division of Environmental Quality, Mr. Scott Nichols with the Idaho Department of Lands and Mr. Pete Peters with the Salmon Challis National Forest.

Further analysis on the Adit spring may be warranted to assess the need for a Land Application Permit or an active\passive treatment system. A Land Application Permit would need to be filed with the State of Idaho. Water could be used for irrigation and fire suppression at the Greyhound camp. Soil attenuation studies at the camp will be required for a Land Application Permit.

TCLP analysis should be completed on the historic Greyhound Mill Site Tails as well as the Pilot Test Plant Tails and compared with existing data obtained by representatives of the United States Forest Service. Data obtained from this analysis should be incorporated into a Reclamation Plan as an addendum to the Plan of Operations.

Best Management Practices (BMP's) should be implemented annually to control sediment runoff and erosion. A request should be made to the Idaho Department of Lands and the US Forest Service to review BMP's on a bi-annual basis.

If fuel is to be stored in the tanks on site, the tank farms should be lined and bermed. An appropriate Spill Prevention, Containment, and Countermeasures plan should also be filed with the Idaho Division of Environmental Quality.

Spent car batteries and oil should be removed from the property and recycled or disposed at appropriate disposal site.

# APPENDIX A

Mineral Survey № 2573 A & B. PATENTED

Hailey Land District.

# PLAT

OF THE CLAIM OF

The Greyhound Mining and Milling Co Ltd.

KNOWN AS THE

## GENERAL GRANT GROUP

In Seafoam MINING DISTRICT,
Custer COUNTY, Idaho.
Containing an area of Acres.
Scale of 500 Feet to the inch.
Variation 20° 30 East
SURVEYED October 6-22, 1910, BY
Harry Hamming,
U.S. Mineral Surveyor,

The Original Field Notes of the Survey of the Mining Claim of
The Greyhound Mining and Milling Co Ltd.
known as the General Grant Group, comprising the Logan, Col Barnard, Holey Terror, Mother, Rufus, Birdie, and General Grant lodes, and the Birdie, Rufus, and Col Barnard mill sites.

From which this plat has been plotted under my direction, have been examined and approved, and are on file in this office, and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon said Mining Claim by said claimant or its grantors, and that said improvements consist of 15 cuts, 12 tunnels, and a shaft.

That the location of said improvements is correctly shown upon this plat, and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

U.S. Surveyor General's Office, Edwin A. Utter
Boise, Idaho. U.S. Surveyor General for
April 12, 1911 Idaho.

Amount deposited $205.00
Amount used $205.00

LOGAN
COL. BERNARD
SURVEY 1004
HOLEY TERROR
MOTHER
RUFUS
BIRDIE
GENERAL GRANT
2573-B.
Sulphur Creek
Blue Bell lode (Unsurveyed)
Ophir lode (Unsurveyed)
John Henry lode (Unsurveyed)
Happy Jack lode (Unsurveyed)
SURVEY
S 60° 37' E 1851'
N 60° 37' W 1500'
S 60° 37' E 1000'
N 60° 37' W 1000'
S 60° 37' E 1851'
N 60° 37' W 1500'
S 38° 53' E 1331'
S 40° 10' E 600'
N 61° 04' W 600'
S 35° 50' E 1305'
N 61° 04' W 1305'
S 61° 04' E 1305'
N 61° 04' W 1305'
S 61° 04' E 1305'
N 61° 04' W 1305'
S 61° 04

# MINERAL SURVEY
# No. 3666 A&B
# IDAHO

CLAIM OF

THE GREYHOUND MINING CO.

KNOWN AS THE

SMITH GROUP

SITUATE IN

Approx. Secs. 4 & 9, T. 14 N., R. 11 E., B.M.
(Unsurveyed)

CUSTER COUNTY, IDAHO
Seafoam Mining District
Lot 44°34'27.659" N., Long. 115°07'18.347" W. at
Cor. No. 2, Buckhorn Mill Site

0 100 200 300 400 500 600 700 800 900 1000
Feet

Magnetic Declination 16° East

Surveyed, June 1 to July 22, 1987
By William E. Hopkins, Mineral Surveyor

*UNITED STATES DEPARTMENT OF THE INTERIOR*
*BUREAU OF LAND MANAGEMENT*

*Idaho State Office* *August 2, 1988* *Boise, Idaho*

*I hereby certify that this plat of Mineral Survey No 3666 A&B, Idaho, is strictly conformable to the field notes of said survey which have been examined and approved*

# APPENDIX B

**KEITH STOKES, P.E.**
CONSULTANT

3709 Kootenai Street Boise, Idaho 83705
Phone 343-5877 or 376-4145

July 17, 1990

Mr. R. J. Cullinane, District Ranger
Middle Fork District
Challis National Forest
P.O. Box 750
Challis, ID 83226

Dear Mr. Cullinane:

RE: Greyhound Mine

In response to your letter of July 6, 1990, we are enclosing "Plan of Operations, FS-2800-5" and copies of maps on the project.

Mr. Yanke is very anxious to start operations and we would appreciate your prompt reply.

Very truly yours,

Keith E. Stokes, P.E.

KES:cjw
Enclosures

FS-2800-5
OMB NO. 0596-0022
EXPIRES: 07/31/92

USDA, Forest Service

# PLAN OF OPERATIONS FOR MINING ACTIVITIES ON NATIONAL FOREST LANDS

Submitted by _____ Consultant July 13, 1990
Signature Title Date

Plan Received by _____ _____ _____
Signature Title Date

## I. GENERAL INFORMATION

A. Name of Mine/Project Greyhound Mine

B. Type of Operation Lode - Development & Pilot Plant
(lode, placer, mill, exploration, development, production, other)

C. Is this a (new/continuing) operation? (CIRCLE ONE)
If continuing a previous operation, this plan (replaces/modifies) a previous plan of operation. (CIRCLE ONE)

D. Proposed start-up date of operation July 20, 1990

E. Proposed duration of operations to end of season - continue next season

F. Proposed seasonal reclamation close-out date November 30, 1990

## II. PRINCIPALS

A. Name, address and phone number of operator Dan Yanke, Greyhound Mining and Milling Co.,
P.O. Box 5411, Boise, ID 83705 342-8901

B. Name, address, and phone number of authorized field representative (if other than the operator). Attach authorization to act on behalf of operator.

Dan Yanke, Greyhound Mining and Milling Co., P.O. Box 5411, Boise, ID 83705
342-8901

C. List the owners of the claims (if other than the operator)

Dan Yanke

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. List name and address of any other le[illegible], assigns, agents, etc. and briefly describe their in[illegible]ment with the operation, if applicable:

NONE

## III. PROPERTY OR AREA

Name of claim and the legal land description where the operation will be conducted.

| MMC # | Name | Section | Township | Range |
|---|---|---|---|---|
| | Greyhound Mine | 4 | T14N | R11EBM |
| | Custer County, Idaho | | | |
| | See maps | | | |

## IV. DESCRIPTION OF THE OPERATION

A. Access. Show on a map (USGS quadrangle map or a National Forest map, for example) the claim boundaries and describe and show on the map all access needs, on and off the claim. Specify what Forest Service existing roads will be used, where maintenance or reconstruction is proposed and where any new construction is necessary. For new construction, include construction specifications such as widths, grades, etc. Show location and size of culverts. Describe maintenance plans. Describe the type and sizes of vehicles and equipment that will be traveling the access routes.

see enclosed maps

B. Attach map, sketch or drawing showing location and layout of the area of operation. Include names and locations or any streams, creeks, and springs. Describe and explain on the map the type of operation, method or techniques you propose (examples: drilling, open pit mining, dredging, milling, etc.; include locations, capacity, size, amount, etc.). Show on the map and describe below the size and kind of all surface disturbance, such as trenches, pits, settling ponds, stream channels and run-off diversions, waste dumps, drill pads, timber disposal or clearance, etc. Include sizes, capacities, acreage, amounts, locations, materials involved, etc.

This is an underground mine on the Rufus patented claim, with a pilot mill capable of 20 tons per day maximum. 1990 operations will be for assay purposes and should not exceed 6,000 tons.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

C. Project Description. Describe all aspects of the operation: how clearing will be accomplished, topsoil stockpiled, waste rock placed, tailing disposed of, etc. Calculate production rates and total volumes of waste rock and ore. Include justification and calculations for settling pond capacities and sizing of runoff diversion channels.

1. For first 12 months:

1) Operate underground development drift;

2) Run bulk flotation tests through pilot mill,

3) Commense clearing of scrub timber from proposed future tailings area (see maps) primarily 3-4 inch lodge pole pine (property under application for pat.)

4) Pilot plant to run approx. 20 TPD using frother 68 and aerofloat 32 at estimate rate of 0.05 lb/ton of ore, each reagent. Additional frother or additions of pine oil at the same rates might be used later.

5) Clean-up dead trees from existing tailings area and clean tailings access road (remove rocks and brush - no major earth moving)

6) Place protective 6" pipe over suspended tailings lines;

7) Use existing hand layed 2" water line which is along old water ditch (No earth work or clearing to be done)

2. For total life of project:

1) Complete underground development on additional levels;

2) Construct processing plant (mill) and permenant tailings ponds (see maps) - Design, capacity and production to be based on results of pilot plant test and current development work.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. Describe the Equipment and Vehicles you propose to use in your operation (Examples: drill, dozer, wash plant, mill, etc.). Include: sizes, capacity, frequency of use, etc.

The equipment used on site for the pilot operation is an air compressor, electric generator, dump truck and a small dozer.

E. Structures. Describe and include justification for the structures or facilities planned for the operation. Include such things as storage sheds, mill buildings, thickener tanks, fuel storage, powder magazines, pipe lines, water diversions, trailers, sanitation facilities, etc. Include justification and calculations for sizing of tanks, pipelines and water diversions. The fuel storage facilities should include containment structures that will hold the volume of the largest storage tank in case of a tank failure of leak. Show the locations on the sketch map.

The pilot operation uses only the existing buildings, ie. mill, storage, house and fuel storage. Expanded operation at a later date will include a new mill and tailing ponds, and crew facilities

## V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)

A. Air Quality. Describe measures to be taken to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.

The pilot plant operation will have no adverse affect on air quality. We will obtain a burning permit for slash disposal. Traffic is very minimal and all processing is wet. Expanded operation may necessitate some dust abaitment on the roads.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

B. Water Quality. State how applicable state and federal water quality standards will be met. Describe what measures or management practices will be used to minimize water quality impacts and meet applicable standards.

1. If water is to be used in the operation (processing ore, washing ore, solution make-up, etc.) state how the water will be stored, treated an disposed of. If ponds of any type are proposed, such as for storage or settling, state how they will be designed and built. Provide storage capacities and water balance calculations. State how ponds will be maintained on an annual basis.

2. Describe methods to control runoff and erosion to prevent entry into surface water for all disturbed areas, including waste and tailings dumps.

3. Describe proposed surface water and groundwater quality monitoring, if required, to demonstrate compliance with federal or state water quality standards.

4. Describe what measures will be used to minimize potential water quality impacts during winter closure, if applicable.

5. If land application is proposed for wastewater disposal, the location and operation of the land application system should be described.

1) Process water for pilot plant (25 to 30 gpm) will be totally retained in the existing tailing pond, (evaporation rate during summer months is more than ample to take care of all water from tailings) 2) Tailing waters totally impounded, any runoff from waste pile would flow into tailings area.

C. Solid Wastes. State how any tailing, dumpage, or other waste produced by operations will be disposed of or treated so as to minimize adverse impacts. Include a statement that all unburnable garbage and refuse will be hauled off-Forest to a sanitary landfill.

Mill tailings to tailing pond, waste rock to storage area above tailings ponds (future).

All garbage and rufuse will be hauled from the project area to an approved sanitary land fill.

D. Scenic Values. State how scenic values will be protected. Examples are screening, slash disposal, timely reclamation, etc.

Proposed clearing for future tailings will be screened by clearing a buffer area of existing timber along the main access road.

(See maps)

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

E. Fish and Wildlife. All practicable measures to maintain and protect fisheries and wildlife habitat affected by the operations must be taken, and should be defined. Most of those measures involve avoidance of critical habitat such as along streams and bogs when planning roads, dumps, etc. Opportunities during reclamation to prevent erosion or plant browse or forage species should be described.

A new carrier pipe will be installed around the existing mill tailings discharge pipe for extra protection against a spill.

We are aware of grey wolf in the area and will report any sightings.

F. Cultural Resources. Describe procedures for protection of historic and archeological values. The Forest Service is responsible for insuring that the area to be covered by the operating plan is inventoried prior to plan approval to determine the presence of significant cultural resources and will specify protective and/or mitigation measures to be taken by the operator. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, the operator shall not proceed until he is notified by the District Ranger that he has complied with provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800.

An old cabin (letter May 29, 1981) will be protected.
Also the historic site 10-CR-609 (letter March 24, 1988)
Barn and corral identified by Idaho State Historical Society will be protected.

G. List all hazardous substances (by name and quantity required) which you intend to use or generate during the proposed operation. Operations USING or GENERATING HAZARDOUS SUBSTANCES must attach copies of other Federal and State agency permits, including all stipulations and conditions pertaining to the permit.

Chemicals used are Pine Oil and Frother 68 and Aerofloat 32 at estimated rates of 0.05 lb/ton. These are not on the Hazardous Substance List.

H. With regard to hazardous substances, discuss handling, storage, security (fencing), identification (signing), or other special operations requirements necessary to conduct the proposed operation.

All fuel is securely transported and stored. There are no other hazardous materials on the site.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

I. Close-out Reclamation. This section should describe the removal of structures and facilities, and the reclamation of the access road. It should specify that roads no longer needed: (1) be closed, (2) bridges and culverts be removed, (3) cross drains, dips, or water bars be constructed, and (4) the road surface be shaped to as near a natural contour as practicable and be stabilized. Show the expected date for completion of all reclamation.

Upon completion of a mining activity, all public lands will be fully reclaimed as outlined above, any roads no longer needed will be closed and reclaimed as in 1-4 above. Tailings areas to be dressed with suitable top soil and seeded.

Expected date is not known at this time.

## VI. FOREST SERVICE EVALUATION OF PLAN OF OPERATIONS

A. Recommended Changes/Modifications for Plan of Operations: _____

B. Bond - As a further guarantee of faithful performance with the reclamation requirements agreed upon in the plan of operations, the operator delivers herewith and agrees to maintain a surety bond, cash, bond, irrevocable letters of credit in the sum of _ _____ ($ _____).

## ACKNOWLEDGEMENTS

A. It is understood that should the nature of the operation change a modified or supplemental plan of operations may be required.

B. It is understood that approval of this plan of operations does not constitute: (1) Certification of ownership to any person named herein; and (2) Recognition of the validity of any mining claim named herein.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

C. It is understood that a bond equivalent to the actual cost of performing the agreed upon mitigation and reclamation measures may be required before this plan can be approved.

D. It is understood that approval of this plan does not relieve me of my responsibility to comply with any other applicable State or Federal laws, rules or regulations.

E. It is understood that any information provided with this plan that is marked confidential will be treated by the agency in accordance with that agency's laws, rules and regulations.

I/We have reviewed and agree to comply with all conditions in this plan of operations, including the recommended changes and reclamation requirements. I/We understand that the bond will not be released until the Forest Officer in charge gives written approval of the reclamation work.

Don K Hyatt — Operator (or Authorized Official)

7-13-90 — (Date)

OPERATING PLAN APPROVAL:

_____ (Name)

_____ (Title)

_____ (Authorized Officer)

_____ (Date)

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, Room 404-W, Washington, D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB #0596-0022), Washington, D.C. 20503.

United States Department of Agriculture
Forest Service
Middle Fork R. D.
P.O. Box 750
Challis, ID 83226

Reply to: 2810

Date: Aug. 3, 1990

Dan Yanke
Greyhound Mining and Milling Company
P.O. Box 5411
Boise, Idaho 83705

Dear Mr. Yanke:

Thank you for the updated Plan of Operations and the tour of the old mill on July 25. The history of the Greyhound area is always interesting.

After further conversations between yourself and Roy Inskeep of my staff, I would like to have this letter, with some clarification of various areas, serve as an amendment to and approval of your Plan with your concurrence.

I. E. of page 1 - The Plan of Operations will cover the three year period of 1990, 1991, and 1992. If operations change significantly during this time, an amendment or supplemental Plan may be submitted.

IV. B. of page 2 - Would be for the operating season of 1990, 1991, and 1992.

IV. C. of page 3 - 1. for first 12 months: #3) use the existing tailings pond for this years operation. For additional containment purposes, clear and build the containment dam part of the first proposed expansion of the tailings pond located in the center of the General Grant millsite. The fill dam not to exceed 10 feet deep for current operations.

IV. C of page 3 - 1. for first 12 months: #6) The protective 6" pipe will need to be in place over the suspended tailings lines and extend far enough to prevent tailing from running back into Sulphur Creek in the event of line rupture. This needs to be completed prior to mill start up this year.

V. C page 5 - The waste rock storage area above the tailings pond is not anticipated for this 3 year period.

V. H page 6 - A containment berm will be added around the fuel storage container capable of containing 80% of the storage capacity.

VI. B page 7 - Bonding for the tailings pond is estimated for the cost of pulling the earthen dam up and over the tailings to provide growing soil for grasses and forbs and slow erosion due to wind and rains, then seed with native grasses. Bonding for closing the road to the tailings pond, ripping and reseeding the roadbed is also included in the bond amount. The bond amount is $2,304.00. A copy of the Reclamation Bond Evaluation Work Sheet is attached for your records.

A block for your signature is provided as a part of this letter for your concurrence to the above clarifications or amendments to your Plan of Operations. If you have questions or additional comments on the above, let me know so we can avoid delays in your operation. If you are satisfied with the above then upon your concurrence and submittal of bond for the amount of $2304.00, your operations may begin.

Thank you for your cooperation.

Sincerely,

R.J. CULLINANE
District Ranger

Operator Concurrence

Date: 6-7-90

# RECLAMATION BOND EVALUATION WORK SHEET

AGENCY USE:
Refer to the attached Reclamation Bond Evaluation Guide for help in preparing this work sheet. Attach additional pages and map if necessary. Identify On-Claim and Off-Claim activities both on the map and in the Cost Evaluation.

File # 2810 Project Identifier GREYHOUND 1990

(Name) DAN YANKE

Date 8/2/90

---

* I. ROAD CLOSURE AND REHABILITATION

JOB DESCRIPTION close road to Tailings Pond — rip and reseed.

| | UNIT COST ($) | NO. OF UNITS (ACRES, Yd, etc.,) | TOTAL |
|---|---|---|---|
| Earth Moving | | | |
| Contouring | D7 TYPE CRAWLER WITH OPERATOR | | |
| Re-shaping | 70.00 | 2 hrs | $ 140.- |
| Erosion Control | | | |
| Drainage Structures | | | |
| Mulch, Hydro-seeding, | — | | |
| Fertilizer, etc. | | | |
| Scarification | | | |
| Re-vegetation | | | |
| Seed Bed Preparation | 70.- | 2 hrs | 140. |
| Seed GRASS | 2. | 50 ft | 100.- |
| Seed Application | | | |
| Hand Planting Trees and Shrubs | | | |
| Labor | 24.00 | 4 | 96.- |
| Other Mobilize & Demob D7 Type Crawler | 550.- | | 500.- |
| | | TOTAL | 976.- |

II. MINE WORKINGS MODIFICATION (CONTOURING)

JOB DESCRIPTION: _____

II. MINE WORKINGS MODIFICATION (CONTOURING) (continued)

| | UNIT COST ($) | NO. OF UNITS (ACRES, Yd, etc.,) | TOTAL |
|---|---|---|---|
| Earth Moving | | | |
| Contouring | | | |
| Re-shaping | | | |
| Erosion Control | | | |
| Drainage Structures | | | |
| Mulch, Hydro-seeding, | | | |
| Fertilizer, etc. | | | |
| Re-vegetation | | | |
| Seed Bed Preparation | | | |
| Seed | | | |
| Seed Application | | | |
| Hand Planting Trees and Shrubs | | | |
| Labor | | | |
| Other | | | |
| | | TOTAL | |

III. STABILIZATION OF TAILING PONDS, WASTE DUMPS, ETC.

JOB DESCRIPTION Pull embankment dam over tailings pond and contour for drainage - re seed

| | | | |
|---|---|---|---|
| Earth Moving | | | |
| Contouring | | | |
| Re-shaping | 70.- | 12 hrs | 840.- |
| Erosion Control | | | |
| Drainage Structures | | | |
| Mulch, Hydro-seeding, | | | |
| Fertilizer, etc. | | | |
| Re-vegetation | | | |
| Seed Bed Preparation | | | |
| Seed GRASS | 2.- | 100# | 200.- |
| Seed Application | | | |
| Hand Planting Trees and Shrubs | | | |
| Labor | 24.- | 12 hrs | 288.- |
| Other | | | |
| | | TOTAL | 1328 |

| | UNIT COST ($) | NO. OF UNITS (ACRES, Yd, etc.,) | TOTAL |
|---|---|---|---|

IV. REMOVAL OF SURFACE STRUCTURES

JOB DESCRIPTION _____

Buildings

Foundations

Earth Moving
Contouring
Re-shaping

Erosion Control
Drainage Structures
Mulch, Hydro-seeding,
Fertilizer, etc.

Re-vegetation
Seed Bed Preparation
Seed
Seed Application
Hand Planting Trees and Shrubs

Labor

Other

TOTAL _____

V. RE-VEGETATION AND EROSION CONTROL (DRILLING AND OTHER AREAS)

JOB DESCRIPTION _____

Earth Moving
Contouring
Re-shaping

Erosion Control
Drainage Structures
Mulch, Hydro-seeding,
Fertilizer, etc.

V. RE-VEGETATION AND EROSION CONTROL (DRILLING AND OTHER AREAS) (continued)

| | UNIT COST ($) | NO. OF UNITS (ACRES, Yd, etc.,) | TOTAL |
|---|---|---|---|
| Re-vegetation | | | |
| Seed Bed Preparation | | | |
| Seed | | | |
| Seed Application | | | |
| Hand Planting Trees and Shrubs | | | |
| Structures | | | |
| Labor | | | |
| Other | | | |

TOTAL _____

GRAND TOTAL #2304.00

The bond amount may be periodically reviewed and adjusted to compensate for completed reclamation work, changes in equipment rental rates, wage rate scales, increased scope of operations, etc.

U.S. DEPARTMENT OF AGRICULTURE
Forest Service

# RECLAMATION PERFORMANCE BOND

(Minerals Operating Plan and/or Exploration Permit, Including Geothermal)

(Reference FSM 6506)

NO. 5551726

**INSTRUCTIONS:** (1) This form is authorized for use whenever a Performance Bond is required in connection with National Forest Reclamation Activity. (2) The full legal name and business address of the Principal shall be inserted in the space designated 'Principal' on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-infact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished. (3) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. (4) Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the work 'Seal', and, if executed in Maine or New Hampshire, shall also affix an adhesive seal. (5) The name of each person signing this bond should be typed in the space provided.

*Principal (Legal name and business address)*

DANIEL R. YANKE
P.O. Box 5411
BOISE, ID 83705

Date Bond Executed: 08/08/90

Type of Organization *(X Appropriate Box)*

- [XX] Individual
- [ ] Partnership
- [ ] Joint Venture
- [ ] Corporation

*Surety(ies) (Name(s) and business address(es))*

SAFECO INSURANCE COMPANY OF AMERICA
Box 2726 T.A.
SPOKANE, WA 99220

State of Incorporation: Washington

| PENAL SUM OF BOND | | |
|---|---|---|
| Million(s) $ | Thousand(s) $ | Hundred(s) $ |
| ---------- | ---002--------- | ---304------- |

**KNOW ALL MEN BY THESE PRESENTS,** That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, and each of our heirs, executors, administrators, and successors, jointly and severally: Provided, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum 'jointly and severally' as well as 'severally' only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

**SCHEDULE OF OPERATING PLANS - REGION _____**

| Name of National Forest | Operating Plan Number | Date | Amount Allocated to Operating Plan ($) | Amount of Allocated Restored ($) | Date Restored | Unallocated Balance ($) |
|---|---|---|---|---|---|---|
| CHALLIS | 2810 | 08/02/90 | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FS-6600-7 (5/79)

**THE CONDITION OF THIS OBLIGATION IS SUCH,** That whereas the Principal has an interest in the Operating Plans identified in the Schedule of Operating Plans above; and

**WHEREAS,** the Principal and Surety agree that, without notice of the surety, the coverage of this bond, in addition to the present operating plans of the Principal, shall extend to and include:

1. Any operating plan approved by the Forest Service and issued to the Principal in the Region or Forests named above, or later named in a rider, the coverage to become effective immediately upon approval by the Forest Service.

2. Any operating plan hereafter approved by the Forest Service in the Region or Forests named above, to become effective immediately upon approval by the Forest Service.

3. Any extension of the operating plan, such coverage to continue without interruption due to expiration of the operating plan.

4. Any modification of an operating plan, include obligations thereunder, whether made by agreement, suspension of operations, or otherwise; and

**WHEREAS,** the Principal and Surety hereby agree that notwithstanding the termination of any operating plan covered by this bond, the bond shall remain in full force and effect as to all remaining operating plans covered by this bond.

**NOW, THEREFORE,** if the Principal shall: Perform and fulfill all the reclamation provisions of all operating plans referred to in the Schedule of Operating Plans and shall also perform and fulfill all the reclamation provisions of any and all duly authorized modifications of said operating plans that may hereafter be made, then the above obligations are to be void; otherwise to remain in full force and effect.

**IN WITNESS WHEREOF,** the Principal and Surety(ies) have executed this reclamation bond and have affixed their seals on the date set forth above.

**PRINCIPAL**

| | | | |
|---|---|---|---|
| Signature(s) | 1. Dan R Yanke (Seal) | 2. (Seal) | Corporate Seal |
| Name(s) and Title(s) (Typed) | 1. Daniel R. Yanke Individual | 2. | |

**SURETY(IES)**

| | | | | |
|---|---|---|---|---|
| Name and Address | SAFECO INSURANCE COMPANY P.O. Box 2726 T.A. Spokane, WA 99220 | State of Inc. Wash. | Liability Limit 100% | Corporate Seal |
| Signature(s) | 1. Yvonne E Earl | 2. | | |
| Name(s) and Title(s) (Typed) | 1. Yvonne E. Earl Attorney-in-fact | 2. | | |

| Bond Premium | Rate Per Thousand | Total |
|---|---|---|
| | $ | $ $100.00 minimum |

Remarks

SAFECO

# POWER OF ATTORNEY

AFECO INSURANCE COMPANY OF AMERICA
HOME OFFICE: SAFECO PLAZA
SEATTLE, WASHINGTON 98185

No. 5487

**KNOW ALL BY THESE PRESENTS:**

That **SAFECO INSURANCE COMPANY OF AMERICA**, a Washington corporation, does hereby appoint

--BERT HIGGINS; RODNEY A. HIGGINS; YVONNE E. EARL; MICHAEL Z. ENGLISH; Boise, Idaho--

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind **SAFECO INSURANCE COMPANY OF AMERICA** thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

**IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA** has executed and attested these presents this 21st day of June, 19 90.

---

## CERTIFICATE

Extract from the By-Laws of **SAFECO INSURANCE COMPANY OF AMERICA:**

"Article V, Section 13. — FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of **SAFECO INSURANCE COMPANY OF AMERICA** adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

(i) The provisions of Article V, Section 13 of the By-Laws, and

(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and

(iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Boh A. Dickey, Secretary of **SAFECO INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the facsimile seal of said corporation this 8th day of August, 19 90.

PRINTED IN U.

United States Department of Agriculture | Forest Service | Salmon & Challis National Forests | Middle Fork Ranger District
P.O. Box 750
Challis, ID 83226

File Code: 2810
Route To:

Date: September 15, 1995

Ronald Yanke
Greyhound Mining & Milling Inc.
P.O. Box 5411
Boise, Idaho 83705

Dear Mr. Yanke,

This letter pertains to your mining operation at the Greyhound Mine located in T. 14N. R. 11E. Sec's 4 & 5 in Custer County. Jack Ebberts and Marv Granroth, from our south zone minerals office, inspected mining operations in the Seafoam area on August 24, 1995. They drove over to your operation and looked at the settlement pond and access road.

In your plan of operations you state that the settlement pond and access road are on your patented property. Jack and Marv checked the survey lines and determined that they are both on Forest Service property.

Forest Service regulations 36 CFR 228 state that large areas of earth disturbance requires a Reclamation Bond (36 CFR 228.13) to cover costs of reclamation (36 CFR 228.8g), should the owner abandon the claims without performing the necessary reclamation work. I am requesting that you post a bond for the amount of $3,646.00, payable to USDA-Forest Service. This bond will cover all costs to reclaim 1800 feet of access road and the settlement pond (about 1 acre).

Enclosed is a copy of the reclamation bond calculation sheet. You can establish a bond with a bank of your choice. The most popular type of bond is a Certificate of Deposit (CD); that way your money will earn interest. A sample copy of the Assignment of Certificate of Deposit Agreement is enclosed. The bond will be returned to you when reclamation of the road, settlement pond, and other disturbances on Forest Service lands has been successfully completed.

Should you have questions or comments on any of the above items, call Marv Granroth or Pete Peters at (208) 879-2285, or myself at (208) 879-5204. We look forward to working with you on your mining activities this season and in the future.

Sincerely,

Judy L. Smith
FOR: RAYMOND J. CULLINANE
District Ranger

cc: Pete Peters

RECLAMATION BOND

DATE__September 14, 1995_____

NAME__Ronald Yanke_____

CLAIM_Greyhound Mine_____

BILL FOR COLLECTION_____

CALCULATED BY__Marv Granroth_____

MOBILIZATION COSTS: Transportation of equipment from Challis to the mill site and return to Challis.

| | | |
|---|---|---|
| D-8 dozer @ $75.00/hour X 5 hrs. | = | $ 375.00 |
| Front-end loader @ $55.00/hr. X 5 hrs. | = | $ 275.00 |
| Dump truck @ $45.00/hr. X 5 hrs. | = | $ 225.00 |
| Total transportation cost: | = | $ 875.00 |

EARTH WORK: Reshape tailings, road, and other disturbed sites to near natural condition. Apply topsoil and prepare for seeding.

| | | |
|---|---|---|
| D-8 dozer @ $120.00/hr. X 6 hrs. | = | $ 720.00 |
| Front-end loader @ $65.00/hr. X 6 hrs. | = | $ 390.00 |
| Dump truck (10 yd.) @ $55.00/hr. X 6 hrs. | = | $ 330.00 |
| Total reshaping and backfilling costs: | = | $1,440.00 |

SEED, FERTILIZE, AND MULCH: 2 acres of surface disturbance.

| | | |
|---|---|---|
| @ $500.00/acre X 2 acres | | $1,000.00 |
| ADMINISTRATION COSTS: 10% OF TOTAL BOND. | = | $ 331.00 |
| TOTAL BOND AMOUNT: | = | $3,646.00 |

**GREYHOUND MINING & MILLING, INC.**
4414 S. Gekeler Ln / P. O. Box 5411
Boise, Idaho 83705
208-342-8901 / FAX: 338-2215

October 13, 1995

Raymond J. Cullinane, Dist. Ranger
Middle Fork Ranger District
P. O. Box 750
Challis ID 83226

RE: Reclamation Bond - Operating Plan 2810

Dear Mr. Cullinane,

Please find enclosed the reclamation bond which you requested in your letter of September 25, 1995. Let me know if I can be of further assistance.

Sincerely,

Daniel R. Yanke

U.S. DEPARTMENT OF AGRICULTURE
Forest Service

# RECLAMATION PERFORMANCE BOND NO. 5839812

(Minerals Operating Plan and/or Exploration Permit, Including Geothermal)

(Reference FSM 6506)

**INSTRUCTIONS:** (1) This form is authorized for use whenever a Performance Bond is required in connection with National Forest Reclamation Activity. (2) The full legal name and business address of the Principal shall be inserted in the space designated 'Principal' on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-infact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished. (3) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. (4) Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the work 'Seal', and, if executed in Maine or New Hampshire, shall also affix an adhesive seal. (5) The name of each person signing this bond should be typed in the space provided.

*Principal (Legal name and business address)*

DANIEL R. YANKE
P.O. Box 5411
Boise, ID 83705

Date Bond Executed
10/04/95

Type of Organization *(X Appropriate Box)*

[XX] Individual

[ ] Partnership

[ ] Joint Venture

[ ] Corporation

*Surety(ies) (Name(s) and business address(es))*

SAFECO INSURANCE COMPANY OF AMERICA
P.O. Box 8567
Boise, ID 83707

State of Incorporation
Washington

PENAL SUM OF BOND

| Million(s) $ | Thousand(s) $ | Hundred(s) $ |
|---|---|---|
| | 003 | 646 |

**KNOW ALL MEN BY THESE PRESENTS,** That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, and each of our heirs, executors, administrators, and successors, jointly and severally: Provided, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum 'jointly and severally' as well as 'severally' only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

SCHEDULE OF OPERATING PLANS - REGION _____

| Name of National Forest | Operating Plan Number | Date | Amount Allocated to Operating Plan ($) | Amount of Allocated Restored ($) | Date Restored | Unallocated Balance ($) |
|---|---|---|---|---|---|---|
| Salmon Nat'l Forest & Challis Nat'l Forest Middle Fork Ranger Dist. | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FS-6500-7 (5/79)

THE CONDITION OF THIS OBLIGATION IS SUCH, That whereas the Principal has an interest in the Operating Plans identified in the Schedule of Operating Plans above; and

WHEREAS, the Principal and Surety agree that, without notice of the surety, the coverage of this bond, in addition to the present operating plans of the Principal, shall extend to and include:

1. Any operating plan approved by the Forest Service and issued to the Principal in the Region or Forests named above, or later named in a rider, the coverage to become effective immediately upon approval by the Forest Service.

2. Any operating plan hereafter approved by the Forest Service in the Region or Forests named above, to become effective immediately upon approval by the Forest Service.

3. Any extension of the operating plan, such coverage to continue without interruption due to expiration of the operating plan.

4. Any modification of an operating plan, include obligations thereunder, whether made by agreement, suspension of operations, or otherwise; and

WHEREAS, the Principal and Surety hereby agree that notwithstanding the termination of any operating plan covered by this bond, the bond shall remain in full force and effect as to all remaining operating plans covered by this bond.

NOW, THEREFORE, if the Principal shall: Perform and fulfill all the reclamation provisions of all operating plans referred to in the Schedule of Operating Plans and shall also perform and fulfill all the reclamation provisions of any and all duly authorized modifications of said operating plans that may hereafter be made, then the above obligations are to be void: otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this reclamation bond and have affixed their seals on the date set forth above.

**PRINCIPAL**

| | | | |
|---|---|---|---|
| Signature(s) | X Daniel E. Yanke (Seal) | 2. (Seal) | Corporate Seal |
| Name(s) and Title(s) (Typed) | 1. Daniel E. Yanke | 2. | |

**SURETY(IES)**

| | | | | |
|---|---|---|---|---|
| Name and Address | SAFECO INSURANCE COMPANY OF AMERICA<br>P.O. Box 8567<br>Boise, ID 83707 | State of Inc. WA | Liability Limit 100% | Corporate Seal |
| Signature(s) | 1. Yvonne E. Earl | 2. | | |
| Name(s) and Title(s) (Typed) | 1. Yvonne E. Earl<br>Attorney-in-fact | 2. | | |

| Bond Premium | Rate Per Thousand | Total |
|---|---|---|
| | $ | $ 100.00 minimum premium |

Remarks

SAFECO®

# POWER OF ATTORNEY

SAFECO INSURANCE COMPANY OF AMERICA
GENERAL INSURANCE COMPANY OF AMERICA
HOME OFFICE: SAFECO PLAZA
SEATTLE, WASHINGTON 98185

No. 5487

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation, does each hereby appoint
*****YVONNE E. EARL; RODNEY A. HIGGINS; BERT HIGGINS; MICHAEL Z. ENGLISH, Boise, Idaho**********

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 17th day of June, 19 94.

---

## CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA
and of GENERAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. - FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA
and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,
(i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect.
the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, R. A. Pierson, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 4th day of October, 19 95.

S-974/EP 1/93

® Registered trademark of SAFECO Corporation.

# APPENDIX C

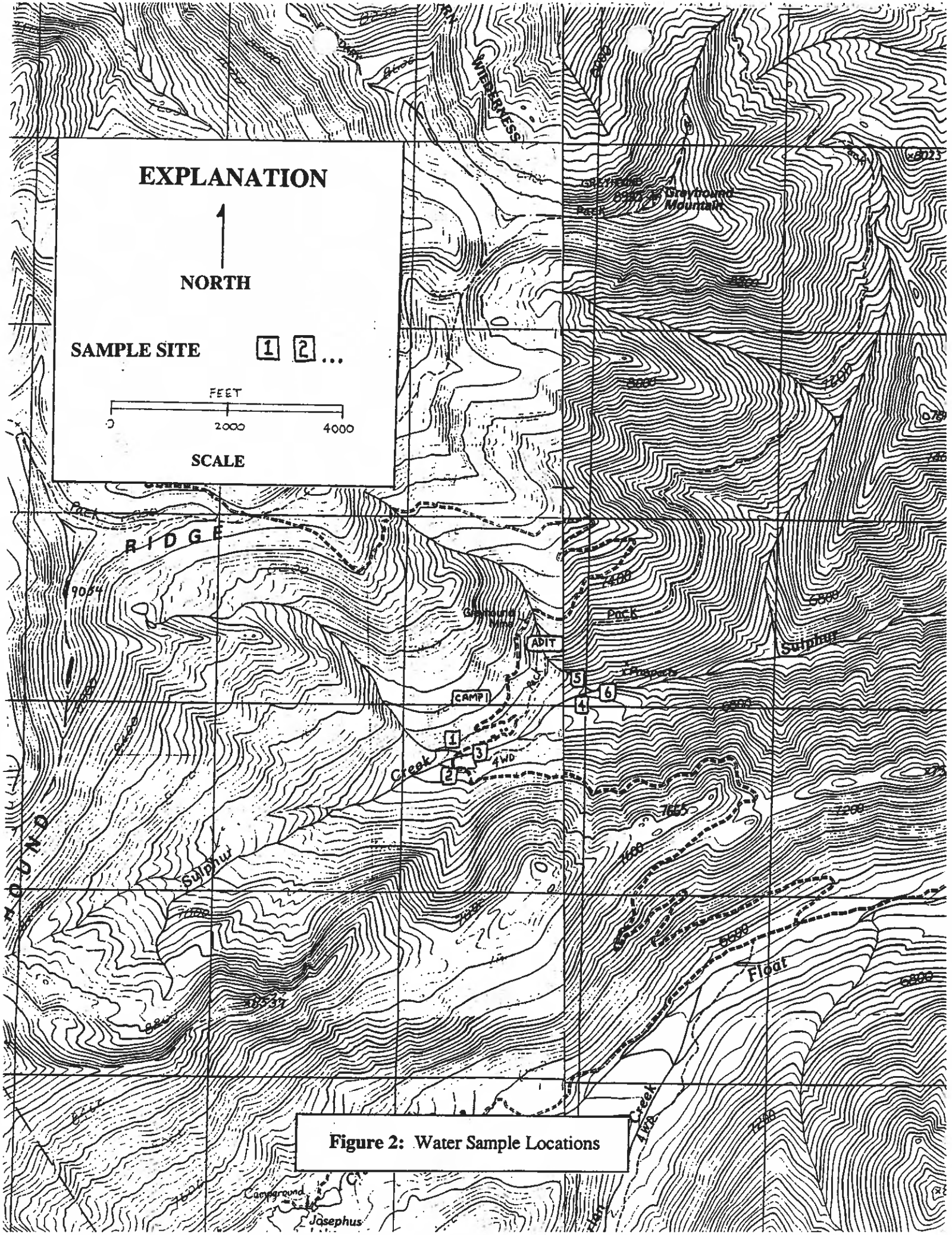



**Figure 2:** Water Sample Locations

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

# LABORATORY ANALYSIS REPORT
## SAMPLE NUMBER - 9918709

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: 08:45
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: PETE PARSLEY

Source of Sample: STATION 1
GREYHOUND

| Test Requested | FRDS # | NCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DNB |
| ARSENIC FURNACE | | | 0.020 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DNB |
| BARIUM | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DNB |
| CALCIUM | | | 12.2 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DNB |
| COPPER | | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | | * | | | EPA 200.9-11 | 07/13/99 | KHF |
| IRON | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DNB |
| MAGNESIUM | | | 0.68 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DNB |
| SILVER | | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | | 1.55 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | | <0.005 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | | 68 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KHF |
| CYANIDE TOTAL | | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | | 34.1 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | | 2 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | | 48 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMM |
| TOTAL SUSPENDED SOLIDS | | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LM |
| TURBIDITY (N.T.U.) | | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KHF |
| pH | | | 8.0 | S.U. | | EPA 150.1 | 07/12/99 | KHF |

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

# LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 9918710

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: 09:00
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: **PETE PARSLEY**

Source of Sample: STATION 2
GREYHOUND

| Test Requested | FROS # NCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|
| ALUMINUM | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | 0.021 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | 12.1 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | 0.56 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MD |
| SELENIUM FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | 1.72 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | <0.005 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | 70 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | 35.5 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | 2 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | 50 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMN |
| TOTAL SUSPENDED SOLIDS | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LN |
| TURBIDITY (N.T.U.) | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | 7.9 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

**ANALYTICAL LABORATORIES, INC.**
**1804 N. 33rd Street**
**Boise, Idaho 83703**
**Phone # (208) 342-5515**

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 9918711

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: 09:10
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: **PETE PARSLEY**

Source of Sample: STATION 3
GREYHOUND

| Test Requested | FRDS # | MCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | | 0.026 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | | 12.3 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | | 0.54 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | | 1.68 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | | <0.005 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | | 70 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | | 37.7 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | | 2 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | | 44 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMN |
| TOTAL SUSPENDED SOLIDS | | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LM |
| TURBIDITY (N.T.U.) | | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | | 8.0 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

# ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

## LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 9918712

NELSON CONSTRUCTION
PO BOX 16550
BOISE, ID 83715

Time of Collection: 10:00
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: PETE PARSLEY

Source of Sample: STATION 4
GREYHOUND

| Test Requested | FRDS # | MCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | | 0.023 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | | 15.6 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | | 0.66 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | | 1.73 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | | <0.005 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | | 0.24 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | | 80 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | | 38.8 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | | 2 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | | 50 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMN |
| TOTAL SUSPENDED SOLIDS | | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LM |
| TURBIDITY (N.T.U.) | | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | | 8.1 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

# LABORATORY ANALYSIS REPORT
## SAMPLE NUMBER - 9918713

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: 10:10
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: PETE PARSLEY

Source of Sample: STATION 5
GREYHOUND

| Test Requested | RDS # MCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|
| ALUMINUM | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | 0.129 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | 14.0 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | 0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | 0.07 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | 0.006 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | 0.71 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MD |
| SELENIUM FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | 1.96 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | 0.033 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | 0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | 78 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | 38.1 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | 3 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | 54 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMM |
| TOTAL SUSPENDED SOLIDS | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LN |
| TURBIDITY (N.T.U.) | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | 8.0 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
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Phone # (208) 342-5515

# LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 9918714

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: **10:15**
Date of Collection: **07/09/99**

Date Received: **07/12/99**
Date Reported: **07/23/99**

Submitted by: **PETE PARSLEY**

Source of Sample: **STATION 6 GREYHOUND**

| Test Requested | FRDS # | MCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | | 0.068 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | | 13.9 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | | 0.06 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | | 0.007 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | | 0.67 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | | 1.91 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | | 0.007 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | | 69 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | | 39.8 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | | 2 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | | 54 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMM |
| TOTAL SUSPENDED SOLIDS | | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LH |
| TURBIDITY (N.T.U.) | | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | | 8.0 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

# LABORATORY ANALYSIS REPORT
## SAMPLE NUMBER - 9918715

**NELSON CONSTRUCTION**
**PO BOX 16560**
**BOISE, ID 83715**

Time of Collection: 08:30
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: **PETE PARSLEY**

Source of Sample: CAMP 1
GREYHOUND

| Test Requested | FRDS # | MCL | Analysis Result | Unit | MDL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | <0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | | 0.021 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | | <0.0005 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | | 20.2 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | | + | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | | 1.35 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | | 2.93 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | | <0.005 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | | <0.20 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | | <0.05 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | | 120 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | | 58.8 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | | 1 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | | 80 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMM |
| TOTAL SUSPENDED SOLIDS | | | <2 | mg/L | | EPA 160.2 | 07/23/99 | LM |
| TURBIDITY (N.T.U.) | | | <0.5 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | | 8.1 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

**ANALYTICAL LABORATORIES, INC.**
1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 9918716

**NELSON CONSTRUCTION**
**PO BOX 16550**
**BOISE, ID 83715**

Time of Collection: 13:00
Date of Collection: 07/09/99

Date Received: 07/12/99
Date Reported: 07/23/99

Submitted by: PETE PARSLEY

Source of Sample: ADIT
GREYHOUND

| Test Requested | FRDS # MCL | Analysis Result | Unit | MCL | Method | Date Completed | Analyst Initials |
|---|---|---|---|---|---|---|---|
| ALUMINUM | | 0.10 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ANTIMONY FURNACE | | 0.006 | mg/L | 0.005 | EPA 200.9 | 07/20/99 | DMB |
| ARSENIC FURNACE | | 0.52 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| BARIUM | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/14/99 | JH |
| CADMIUM FURNACE | | 0.0029 | mg/L | 0.0005 | EPA 200.9 | 07/20/99 | DMB |
| CALCIUM | | 23.6 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| CHROMIUM FURNACE | | <0.002 | mg/L | 0.002 | EPA 200.9 | 07/20/99 | DMB |
| COPPER | | <0.01 | mg/L | 0.01 | EPA 200.7 | 07/15/99 | JH |
| DIGESTION | | * | | | EPA 200.9-11 | 07/13/99 | KMF |
| IRON | | 0.22 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| LEAD FURNACE | | 0.007 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| MAGNESIUM | | 1.49 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| MANGANESE | | <0.05 | mg/L | 0.05 | EPA 200.7 | 07/15/99 | JH |
| MERCURY | | <0.0002 | mg/L | 0.0002 | EPA 245.1 | 07/15/99 | MO |
| SELENIUM FURNACE | | <0.005 | mg/L | 0.005 | EPA 200.9 | 07/16/99 | DMB |
| SILVER | | <0.005 | mg/L | 0.005 | EPA 272.1 | 07/14/99 | JH |
| SODIUM | | 3.11 | mg/L | 0.10 | EPA 200.7 | 07/15/99 | JH |
| ZINC | | 0.193 | mg/L | 0.005 | EPA 200.7 | 07/15/99 | JH |
| AMMONIA DIRECT | | <0.04 | mg/L | 0.04 | EPA 350.1 | 07/16/99 | KDH |
| NITRATE N | | 0.23 | mg/L | 0.20 | EPA 300.0 | 07/22/99 | LB |
| NITROGEN TOTAL KJELDAHL | | <0.1 | mg/L | 0.1 | EPA 351.2 | 07/19/99 | KDH |
| PHOSPHATE P, TOTAL | | 0.12 | mg/L | 0.05 | EPA 365.4 | 07/19/99 | KDH |
| CHEMICAL OXYGEN DEMAND | | <20.0 | mg/L | 20.0 | EPA 410.4 | 07/16/99 | LB |
| CONDUCTIVITY | | 140 | umhos | 2.0 | EPA 120.1 | 07/12/99 | KMF |
| CYANIDE TOTAL | | <0.005 | mg/L | 0.005 | SM 4500-CN E | 07/15/99 | KDH |
| HARDNESS | | 59.4 | mg/L | 2.0 | SM 2340 | 07/15/99 | JT |
| SULFATE | | 11 | mg/L | 1.0 | EPA 300.0 | 07/22/99 | LB |
| TOTAL DISSOLVED SOLIDS | | 96 | mg/L | 30 | EPA 160.1 | 07/19/99 | BMM |
| TOTAL SUSPENDED SOLIDS | | 3 | mg/L | | EPA 160.2 | 07/23/99 | LN |
| TURBIDITY (N.T.U.) | | 0.60 | NTU | 0.5 | EPA 180.1 | 07/12/99 | KMF |
| pH | | 7.6 | S.U. | | EPA 150.1 | 07/12/99 | KMF |

# APPENDIX D

SVL ANALYTICAL, INC.
ne Government Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1258 ■ Fax: (208)783-0891



# REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Sawtooth National Forest
SVL JOB # : 60077
SVL SAMPLE # : 104754

CLIENT SAMPLE ID: JG-GH-4

Sample Receipt : 1/12/96
Date of Report : 1/26/96

Sample Matrix: Solid Waste
Extraction : TCLP *

| Determination | Result | Units | TCLP Reg. Limit | Method | Analysis Date |
|---|---|---|---|---|---|
| Silver | 0.010 | mg/L Ext | 5.0 | 6010A | 1/26/96 |
| Arsenic | 1.68 | mg/L Ext | 5.0 | 6010A | 1/26/96 |
| Barium | 0.070 | mg/L Ext | 100.0 | 6010A | 1/26/96 |
| Cadmium | 0.279 | mg/L Ext | 1.0 | 6010A | 1/26/96 |
| Chromium | <0.005 | mg/L Ext | 5.0 | 6010A | 1/26/96 |
| Mercury | <0.0002 | mg/L Ext | 0.2 | 7470 | 1/19/96 |
| Lead | 0.89 | mg/L Ext | 5.0 | 6010A | 1/26/96 |
| Selenium | <0.04 | mg/L Ext | 1.0 | 6010A | 1/26/96 |

* Sample extracted according to EPA method 1311 (TCLP).

Reviewed By: _____ Date 1/26/96

# APPENDIX E

# DRINKING WATER MONITORING REQUIREMENTS

## FOR NEWLY DEVELOPED DRINKING WATER SOURCES

All the following testing must be completed and demonstrate that water falls within allowable contamination levels (below MCL) before a newly developed source can deliver drinking water to the public. The only exceptions to monitoring requirements are denoted by a parenthetical statement or footnote symbol beside the name of the contaminant.

| Required Monitoring or Determination | Regulatory Status | Action After Review of Results |
|---|---|---|
| Coliform | Coliform Rule | Contamination will require disinfection treatment. |
| Surface Water Influence Determination (Required only for all wells located less than 200 feet horizontally from surface water and wells screened or perforated less than 50 feet deep and all springs and infiltration galleries) | Surface Water Treatment Rule | Determination that water is surface water influenced will require disinfection, turbidity monitoring and probably filtration. |
| Treatment Contact Time (Only if disinfection is required) | Coliform Rule or Surface Water Treatment Rule | If disinfection is required, an IDEQ engineer will work with water system to ensure contact time is sufficient to deactivate the required percentage of organisms. |

## MONITORING REQUIRED FOR NEW WATER SOURCE DEVELOPMENT

| VOC Contaminant | Regulatory Status | MCL mg/l | MDL mg/l |
|---|---|---|---|
| Vinyl chloride | Phase II | .002 | .0005 |
| Benzene | Phase II | .005 | .0005 |
| Carbon tetrachloride | Phase II | .005 | .0005 |
| 1,2-dichloroethane | Phase II | .005 | .0005 |
| Trichloroethylene | Phase II | .005 | .0005 |
| *para*-dichlorobenzene (1,4-dichlorobenzene) | Phase II | .075 | .0005 |
| 1,1-dichloroethylene | Phase II | .007 | .0005 |
| 1,1,1-trichloroethane | Phase II | 0.2 | .0005 |
| *cis*-1,2-dichloroethylene | Phase II | .07 | .0005 |
| 1,2-dichloropropane | Phase II | .005 | .0005 |
| Ethylbenzene | Phase II | 0.7 | .0005 |
| Monochlorobenzene | Phase II | 0.1 | .0005 |
| *ortho*-dichlorobenzene (1,2-dichlorobenzene) | Phase II | 0.6 | .0005 |
| Styrene | Phase II | 0.1 | .0005 |
| Tetrachloroethylene | Phase II | .005 | .0005 |
| Toluene | Phase II | 1 | .0005 |
| *trans*-1,2-dichloroethylene | Phase II | 0.1 | .0005 |
| Xylenes (total) | Phase II | 10 | .0005 |
| Dichloromethane | Phase V | .005 | .0005 |
| 1,2,4-trichlorobenzene | Phase V | .07 | .0005 |
| 1,1,2-trichloroethane | Phase V | .005 | .0005 |
| Chloroform | THM rule: (Only systems serving a population of 10,000 or more people are required to conduct this test) | .10 mg/l is the MCL for the sum of the concentrations of all 4 THMs. | |
| Bromodichloromethane | | | |
| Chlorodibromomethane | | | |
| Bromoform | | | |
| *meta*-dichlorobenzene (1,3-dichlorobenzene) | Unregulated | Unregulated | |
| 1,1-dichloropropene | Unregulated | Unregulated | |
| 1,1-dichloroethane | Unregulated | Unregulated | |
| 1,1,2,2-tetrachloroethane | Unregulated | Unregulated | |
| 1,3-dichloropropane | Unregulated | Unregulated | |
| Chloromethane | Unregulated | Unregulated | |
| Bromomethane | Unregulated | Unregulated | |
| 1,2,3-trichloropropane | Unregulated | Unregulated | |
| 1,1,1,2-tetrachloroethane | Unregulated | Unregulated | |
| Chloroethane | Unregulated | Unregulated | |
| 2,2-dichloropropane | Unregulated | Unregulated | |
| *ortho*-chlorotoluene (1,2-chlorotoluene) | Unregulated | Unregulated | |
| *para*-chlorotoluene (1,4-chlorotoluene) | Unregulated | Unregulated | |
| Bromobenzene | Unregulated | Unregulated | |
| 1,3-dichloropropene | Unregulated | Unregulated | |

| C Contaminant | egulatory Status | MCL mg/l | MDL mg/l |
|---|---|---|---|
| Alachlor | Phase II | .002 | .0002 |
| Aldicarb | Phase II | Delayed | .0005 |
| Aldicarb sulfoxide | Phase II | Delayed | .0005 |
| Aldicarb sulfone | Phase II | Delayed | .0008 |
| Atrazine | Phase II | .003 | .0001 |
| Carbofuran | Phase II | .04 | .0009 |
| Chlordane | Phase II | .002 | .0002 |
| Dibromochloropropane (DBCP) | Phase II | .0002 | .00002 |
| 2,4-D (2,4-dichlorophenoxyacetic acid) | Phase II | .07 | .0001 |
| Ethylene dibromide (EDB) | Phase II | .00005 | .00001 |
| Heptachlor | Phase II | .0004 | .00004 |
| Heptachlor epoxide | Phase II | .0002 | .00002 |
| Lindane | Phase II | .0002 | .00002 |
| Methoxychlor | Phase II | .04 | .0001 |
| Polychlorinated biphenyls (PCBs) | Phase II | .0005 | .0001 |
| Pentachlorophenol (penta) | Phase II | .001 | .00004 |
| Toxaphene | Phase II | .003 | .001 |
| 2,4,5-TP (2,4,5-trichlorophenoxypropanic acid) or (Silvex) | Phase II | .05 | .0002 |
| Benzo[a]pyrene | Phase V | .0002 | .00002 |
| Dalapon | Phase V | 0.2 | .001 |
| Di(2-ethylhexyl)adipate | Phase V | 0.4 | .0006 |
| Di(2-ethylhexyl)phthalate | Phase V | .006 | .0006 |
| Dinoseb | Phase V | .007 | .0002 |
| Diquat † | Phase V | .02 | .0004 |
| Endothall † | Phase V | 0.1 | .009 |
| Endrin (Also regulated under phase I with a MCL of .0002 mg/l) | Phase I/V | .002 | .00001 |
| Glyphosate † | Phase V | 0.7 | .006 |
| Hexachlorobenzene | Phase V | .001 | .0001 |
| Hexachlorocyclopentadiene | Phase V | .05 | .0001 |
| Oxamyl (Vydate) | Phase V | 0.2 | .002 |
| Picloram | Phase V | 0.5 | .0001 |
| Simazine | Phase V | .004 | .00007 |
| 2,3,7,8-TCDD★ (2,3,7,8-tetrachlorodibenzodioxin) or (Dioxin)★ | Phase V | $3x10^{-8}$ | $5x10^{-9}$ |
| Aldrin | Unregulated | Unregulated | |
| Butachlor | Unregulated | Unregulated | |
| Carbaryl | Unregulated | Unregulated | |
| Dicamba | Unregulated | Unregulated | |
| Dieldrin | Unregulated | Unregulated | |
| 3-hydroxycarbofuran | Unregulated | Unregulated | |
| Methomyl | Unregulated | Unregulated | |
| Metolachlor | Unregulated | Unregulated | |
| Metribuzin | Unregulated | Unregulated | |
| Propachlor | Unregulated | Unregulated | |

★ New source testing for dioxin and asbestos will not be required except in special circumstances. You will be notified if your system is required to test for dioxin and/or asbestos.

† IDEQ may not require monitoring for diquat, endothall, or glyphosate for systems serving 150 connections or less.

| IOC Contaminant | Regulatory Status | MCL mg/l |
|---|---|---|
| Fluoride | Phase II | 4.0 |
| Asbestos★ | Phase II | 7 million fibers per liter (> 10μm long) |
| Barium | Phase II | 2 |
| Cadmium | Phase II | 0.005 |
| Chromium | Phase II | 0.1 |
| Mercury | Phase II | 0.002 |
| Nitrate | Phase II | 10 (as nitrogen) |
| Nitrite | Phase II | 1 (as nitrogen) |
| Total nitrate and nitrite | Phase II | 10 (as nitrogen) |
| Selenium | Phase II | 0.05 |
| Antimony | Phase V | 0.006 |
| Arsenic | Phase I (Regulation currently being modified to reduce MCL) | 0.05 |
| Beryllium | Phase V | 0.004 |
| Cyanide (as free cyanide) | Phase V | 0.2 |
| Nickel | Phase V | 0.1 |
| Thallium | Phase V | 0.002 |
| Lead | Monitoring required only after system is delivering water to public. Lead/Copper Rule | 0.015 (90%ile action level) |
| Copper | Monitoring required only after system is delivering water to public. Lead/Copper Rule | 1.3 (90%ile action level) |
| Sulfate | Phase V (delayed) | |
| Sodium | Unregulated | Unregulated |
| Alpha Radioactivity | Phase I | 15 pCi/L |
| Beta Radioactivity (Required only of systems over 100,000 population) | Phase I | 4 mREM/yr |
| Sand content (for wells only) | IDAPA 16.01.08550,02.d.iii | 5 ppm requires screening/gravel packing |
| Temperature (properly taken on site) | Corrosivity/lead ban | Non corrosive to lead and copper |
| pH (properly taken on site) | Corrosivity/lead ban | Non corrosive to lead and copper |
| Total Dissolved Solids (TDS) | Corrosivity/lead ban | Non corrosive to lead and copper |
| Alkalinity | Corrosivity/lead ban | Non corrosive to lead and copper |
| Calcium Hardness | Corrosivity/lead ban | Non corrosive to lead and copper |
| Turbidity (only if surface water or determination surface water influence is made) | Surface Water Treatment Rule | Performance Standard |

| Monitoring Recommended but not Required | Regulatory Status | MCL |
|---|---|---|
| Aluminum | Secondary | .05 to .02 mg/l |
| Chloride | Secondary | 250 mg/l |
| Color | Secondary | 15 Color units |
| Copper | Secondary | 1.0 mg/l |
| Fluoride | Secondary | 2.0 mg/l |
| Foaming agents | Secondary | 0.5 mg/l |
| Iron | Secondary | 0.3 mg/l |
| Manganese | Secondary | 0.05 mg/l |
| Odor | Secondary | 3 Threshold odor number |
| Silver | Secondary | 0.1 mg/l |
| Zinc | Secondary | 5 mg/l |

★ New source testing for dioxin and asbestos will not be required except in special circumstances. You will be notified if your system is required to test for dioxin and/or asbestos.