Monday Mine

Preliminary Assessment Report

Blaine County
State of Idaho

Department of Environmental Quality

November 2007

Submitted to:
U. S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101
November 28, 2007

Ms. Joanna Ehrmantraut  
1333 Galena Drive  
Twin Falls, Idaho 83301

RE: Site Assessment of the Monday Mine and Claim.

Dear Ms. Ehrmantraut:

The Idaho Department of Environmental Quality (IDEQ) has completed a review of historical mining data and geological information of the above referenced mine and claim. Subsequent to that review, IDEQ conducted a site visit of the Monday Mine and claim. During the site visit, mining facilities were mapped and sampled to complete the analysis necessary to complete a final Preliminary Assessment (PA) report.

PAs are conducted according to the Federal Comprehensive Environmental Response, Compensation and Liabilities Act. The reasons to complete a Preliminary Assessment include:

1) To identify those sites which are not CERCLIS caliber because they do not pose a threat to public health or the environment (No Remedial Action Planned (NRAP));

2) To determine if there is a need for removal actions or other programmatic management of sites;

3) To determine if a Site Investigation, which is a more detailed site characterization, is needed; and/or

4) To gather data to facilitate later evaluation of the a release of hazardous substances through the Hazard Ranking System (HRS).

IDEQ has also completed PAs under contract with the U.S. Environmental Protection Agency in order to identify risks to human health and the environment, and make recommendations to land owners regarding how risks might be managed, if necessary.

Based on a number of factors discussed in the following report, IDEQ has determined that No Remedial Action is Planned (NRAP) for this property. However, metal concentrations in a sample collected in the lower most waste dump indicate that access restrictions or a sign, at the bottom of the mine road, may be appropriate. A sign, if posted, should advise hikers that frequent
or sustained direct exposure to mine tailings may have adverse health effects. Using this type of access restriction or advisory is strictly at your discretion.

Attached is the Preliminary Assessment Report of the property and mine facilities. The report contains a brief mine history, limited geologic information, data results, and maps of the property and surrounding area, and a brief checklist of how IDEQ came to its determination that the property status is NRAP.

IDEQ very much appreciates your cooperation and approval for our access, and looks forward to addressing any questions you may have regarding our findings. Please call me if you have any comments, questions, or if I may be of any other assistance.

Sincerely,

Bruce A. Schuld
Mine Waste Projects Coordinator
Waste Management and Remediation Division

Attachments

cc: Ken Marcie – U.S. Environmental Protection Agency
    Megan Stelma – Blaine County
    file
Introduction

This document presents the results of the preliminary assessment (PA) of the Monday Mine. The Idaho Department of Environmental Quality (IDEQ) was contracted by Region 10 of the United States Environmental Protection Agency (EPA) to provide technical support for completion of preliminary assessments at various mines within the Mineral Hill Mining District in Blaine County, Idaho.

IDEQ often receives complaints or information about sites that may be contaminated with hazardous waste. These sites can include abandoned mines, rural airfields that have served as bases for aerial spraying, old landfills, illegal dumps, and abandoned industrial facilities that have known or suspected releases.

In February 2002, IDEQ initiated a Preliminary Assessment Program to evaluate and prioritize assessment of such potentially contaminated sites. Due to accessibility and funding considerations, priority is given to sites where potential contamination poses the most substantial threat to human health or the environment. Priority was also given to mining districts where groups or clusters of sites could be assessed on a watershed basis.

For additional information about the Preliminary Assessment Program, see the following:
http://www.deq.idaho.gov/waste/prog_issues/mining/pa_program.cfm

Access to assess the Monday Mine was provided by Ms. Joanna Ehrmantraut in 2006.

Ownership

Ms. Joanna Ehrmantraut
1333 Galena Drive
Twin Falls, Idaho 83301

Location

The Monday Mine is located near the mouth of Seamen Gulch approximately one mile east south east of Bellevue, Idaho, in Section 31 Township 2 North, Range 19 East of the Boise Meridian, at Latitude 43 27’ 37.57”N, and Longitude 114 14’ 30.97”W. The mine is on a very steep hillside and accessible through fenced private properties. A long unmaintained road snakes its way from behind some homes past the lower workings to a spring site and then the upward to the upper workings.
Climate

Climate information provided in this section is based on a climatological summary for Hailey, Idaho which was obtained from the National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center. The climatological data was
collected at the Hailey Airport (elevation 5,328 amsl), and is for the period of 1951 through 1980. Each site for which this data is used is subject to more localized meteorological conditions that result from difference in elevation, orientation of slopes in watershed, vegetation and other factors.

The area around the site is characterized by short cool dry summers and very cold winters. The total annual precipitation measured at the Hailey Airport averages 16.2 inches. The majority of precipitation occurs as snow. Total annual snowfall averages 78.2 inches with most snowfall occurring in December and January. The driest months are July, August and September.

Based on records from 1951 to 1980, the average annual temperature measured at the Hailey Airport is 43 degrees Fahrenheit (F). The lowest temperature recorded for this period was –28 degrees F in 1962. The highest temperature for this period of record was 100 degrees F in 1953. January is the coldest month with an average temperature of 19.5 degrees F. July is the hottest month with an average temperature of 67 degrees F.

**Geology**

Generally speaking, the Monday Mine is hosted by rocks of the Devonian Milligen Formation. Ore supposedly occurs as mineralized fissures or shear zones, most of which strike west-northwest and dip to the southwest at moderate angles, and as replacement deposits at the intersection of mineralized shear zones and susceptible limestone beds. Fissure ores in the Monday Mine may have occurred like those at other local mines in pods and lenses ranging from a few inches to many feet in width; the ore minerals are galena, sphalerite, arsenopyrite and sulphantimonides (tetrahedrite and boulangerite) in a gangue of siderite and quartz. The bedded siliceous ores, which generally occur as replacement of limestone beds in the host rock, consist of galena and sphalerite in a gangue of quartz, siderite, and unmineralized country rock. The “complex” ores consist largely of sphalerite and galena in a pyrite gangue (the term “complex” referred to the metallurgical problems initially found in processing this ore). There is almost a complete replacement of the limestone beds by sulfides in the complex ore (Kiilsgaard et al, 1950).
History

The mine has been inactive for many years and numerous homes have been built on the old mill sites below the mine. The mine has four main levels, with caved adits. The mine contained several hundred feet of workings and produced over 15 tons of high grade ore between the years of 1883 and 1869, little remains on the dumps.
The tunnels were developed in black shale of the Milligen Formation. The primary ore contained galena, a lead sulfide mineral, which was reportedly exceptionally rich in silver. The ore produced 1,203 ounces of silver and 6.640 pounds of lead. Although from a distance the dumps look quite large, they are only a thin veneer of host rocks, with less than 500 tons total at the surface. There are very few indications of sulfide ore or waste on any of the dumps. However, waste dump sample M-WD-4 SS-1 was collected from the waste dump closest to the residence to evaluate potential risks.

**Waste Sampling and Characterization**

Although the mine waste dumps at the Monday are relatively small in volume (<100 cubic yards), their proximity to the residential developments at the base of the hill warranted sampling of the materials to which the locals would be most likely to contact.

**Monday Mine Table 1**

<table>
<thead>
<tr>
<th>Description</th>
<th>IDTLs</th>
<th>EPA Region 9 PRGs</th>
<th>Monday Mine Waste Dump #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>76000</td>
<td></td>
<td>M-WD-4 SS-1</td>
</tr>
<tr>
<td>Antimony</td>
<td>4.77</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.391</td>
<td>0.39</td>
<td>708</td>
</tr>
<tr>
<td>Barium</td>
<td>896</td>
<td>5400</td>
<td>50</td>
</tr>
<tr>
<td>Beryllium</td>
<td>1.63</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>1.35</td>
<td>37</td>
<td>195</td>
</tr>
<tr>
<td>Calcium</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td>7.9</td>
<td>210</td>
<td>40.9</td>
</tr>
<tr>
<td>Cobalt</td>
<td>900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>921</td>
<td>3100</td>
<td>190</td>
</tr>
<tr>
<td>Iron</td>
<td>23000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>49.6</td>
<td>400</td>
<td>13100</td>
</tr>
<tr>
<td>Magnesium</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td>223</td>
<td>1800</td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>0.00509</td>
<td>23</td>
<td>0.72</td>
</tr>
<tr>
<td>Nickel</td>
<td>59.1</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selenium</td>
<td>2.03</td>
<td>390</td>
<td>&lt;4</td>
</tr>
<tr>
<td>Silver</td>
<td>0.189</td>
<td>390</td>
<td>58.2</td>
</tr>
<tr>
<td>Vanadium</td>
<td>550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc</td>
<td>886</td>
<td>886</td>
<td>21100</td>
</tr>
</tbody>
</table>
Essentially, the concentrations in M-WD4-SS1 for total arsenic, total cadmium, total chromium, total lead, total silver and total zinc exceed Idaho’s Initial Default Target Levels (IDTLs). These IDTLs are risk-based target levels for certain chemicals that have been developed by DEQ using conservative input parameters, a target acceptable risk of $10^{-6}$, and a Hazard Quotient of 1. An exceedence of the IDTLs indicates that if pathways are complete, and receptors can get a prolonged exposure to contaminants from the site, then additional site assessment work may be necessary to qualify true risk under current site conditions. An exceedence of the IDTLs may also be indicative of risks that may evolve under new site conditions if the site conditions change such as development for residential uses.

Concentrations of total arsenic, total cadmium, and total lead, also exceed EPA Region 9’s Preliminary Remedial (Cleanup) Goals.

**Current Site Conditions**

There is no indication of any mine drainage from any of the caved adits. Erosional features such as well preserved rills are indicative that the only delivery of contaminants is of sediment from the steep faced dumps into the sage brush on the lower slopes. There is no evidence of delivery of this sediment into yards of adjoining homes. Although all adits are caved, some minor physical hazards exist in the form of loose rocks and boulders along the cut banks of the road and brows of each adit.

From a distance the Monday Mine Road can be seen as a long diagonal upwards from right to left. The road goes up past the lower Monday workings to a springs area, where it turn back to the west and upward to the upper mine workings.
There is no indication of near surface ground water other than the springs on the east side of the property. These springs are not, however, down gradient of any of the known workings, and therefore should not be effected by the mine.

With the exception of a few people and dogs that live in the adjacent residences, who occasionally walk up the steep mine road, there is no evidence that the mines are frequented by many people. There are no indications that this area is grazed by livestock, but there is evidence of deer and other wildlife.

Although the mine dumps look large from a distance, they are merely thin veneers on a steep hillside, and contain less than 500 tons total.

The mine road is unmaintained and almost completely reclaimed by native vegetation. It is essentially impossible to drive upon.
The Monday Mine overlooks numerous residential properties that were developed on an old mill site at the base of the hillside.

Each of the adits on the four main levels are caved, and with the exception of unstable rock and debris on the overhanging slopes, these adits pose no significant physical hazard.
Residence beneath the lowest Monday Mine workings.

Although the Monday Mine waste dumps display evidence of seasonal erosion, there is no evidence that the waste rock is being delivered to the residential yards below.
PATHWAYS AND RECEPTORS

Air

Wind borne fugitive dust has been the driving force behind cleanups in the area particularly at the Triumph Mine and Minnie Moore Tailings Impoundment. However there are several factors which render insignificant the Monday Mine waste dumps as sources for air borne contaminants. First and foremost; the Monday Mine waste dumps contain very coarse rock. Particle sizes which are generally greater than one inch are not subject to movement by winds. Secondly, although sparsely vegetated, vegetation is deeply rooted, which apparently stabilizes the surface of the dumps quite well.
**Groundwater**

The most significant potential human health risks have been thought to be related to heavy metal delivery to public and private drinking water supplies. Generally speaking sources of contaminant delivery to ground water and then into these systems was thought to likely occur along two separate sources and three closely related pathways. The first pathway is when heavy metals are leached from mine waste piles, enter ephemeral or perennial drains and then enter recharge areas for the shallow ground water system. The second pathway is when heavy metals leach from the local ore bodies and are discharged to ephemeral or perennial drains directly from adits. The third pathway is when metals are leached from ore bodies and are transported through the geologic structure (faults and fractures) to the local shallow ground water systems.

For the purposes of completing Preliminary Assessments, Source Water Assessments (completed for local public drinking water supplies) were used to identify potential affects to both public and private (domestic) water supplies.

Source water assessments provide information on the potential contaminant threats to public drinking water sources. In the Big Wood River Valley Idaho, most of those sources (>95%) are ground water (IDEQ 2000). Each source water assessment:

- Defines the zone of contribution, which is that portion of the watershed or subsurface area contributing water to the well or surface water intake (source area delineation).
- Identifies the significant potential sources of drinking water contamination in those areas (contaminant source inventory).
- Determines the likelihood that the water supply will become contaminated (susceptibility analysis).

Each assessment is summarized in a report that describes the above information and provides maps of the location of the public water system, the source area delineation, and the locations of potential contaminant sources. Idaho began developing source water assessments in 1999, and in May 2003 met its obligation under the amendments of the Safe Drinking Water Act by completing delineations for all 2100+ public water systems that were active in Idaho as of August 1999 (IDEQ 2000). Source water assessments for new public drinking water systems are being developed as those systems come online. Each public water system is provided with two copies of its final assessment report. Four source water assessments for drinking water supplies have been used in this Preliminary Assessment Process to evaluate the potential impacts to both public and private drinking water supplies in and around Sun Valley, Ketchum, Hailey and Bellevue.

The information extrapolated from these reports is based on data that existed at the time of their writing, and the professional judgment of IDEQ staff. Although reasonable efforts were made to present accurate information, no guarantees, including expressed or
implied warranties of any kind are made with respect to these reports or this Preliminary Assessment by the State of Idaho or any of its agents who also assume no legal responsibility for accuracy of presentation, comments or other information in these publications or this Preliminary Assessment report. The results should not be used as an absolute measure of risk, and they should not be used to undermine public confidence in public drinking water systems.

The Source Area delineation process establishes the physical area around a well or surface water intake that becomes the focal point of the source water assessment. The process includes mapping the boundaries of the zone of contribution (the area contributing water to the well or to the surface water intake) into time of travel zones (TOT) indicating the number of years necessary for a particle of water to reach a well or surface water intake (IDEQ 2000). The size and shape of the source water assessment area depend on the delineation method used, local hydrogeology, and volume of water pumped from the well or surface water intake.

IDEQ used a refined computer model approved by EPA to determine the 3-year (Zone 1B), 6-year (Zone 2), and 10 year (Zone 3) time of travel associated with the Big Wood River Aquifer and its sources (IDEQ 2000).

This process involves collecting, recording, and mapping existing data and geographical information system (GIS) coverage to determine potential contaminant sources (e.g., gas stations) within the delineated source water assessment area. The potential contaminant source inventory is one of three factors used in the susceptibility analysis to evaluate the overall potential risk to the drinking water supply (IDEQ 2000). The inventory process goal is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water or surface water contamination.

The susceptibility analytical process determines the susceptibility of each public water system well or surface water intake to potential contamination within the delineated source water assessment area. It considers hydrogeologic characteristics, land use characteristics, potentially significant contaminant sources, and the physical integrity of the well or surface water intake. The outcome of the process is a relative ranking into one of three susceptibility categories: high, moderate, and low. The rankings can be used to set priorities for drinking water protection efforts (IDEQ 2000).

There are numerous public and private drinking water supplies in the Big Wood River Basin. The Sun Valley Water and Sewer District operates and maintains nine wells in two groupings (IDEQ 2000). The City of Ketchum drinking water system consists of seven wells in two groupings. The City of Hailey’s drinking water system consists of six wells and a spring (IDEQ 2000). The City of Bellevue drinking water system consists of two wells and three springs (IDEQ 2000).

Generally speaking, public drinking water systems in the Big Wood River Valley are rated as moderate to high (IDEQ 2000). Multiple factors affect the likelihood of movement of contaminants from the sources to the aquifer, which lead to this moderate to
high score. Soils in the area are poorly to moderately drained. The vadose zone is predominantly gravel, which increases the score. On the valley floors the average depth to ground water is twenty to fifty feet.

To date, routine water quality monitoring of public drinking water indicates that there are no significant volumes of heavy metals migrating through the regional or localized ground water systems. More specifically, there are no long term or recurring water chemistry problems in the Sun Valley Water and Sewer District drinking water sources. One well in the Sun Valley system has had one instance (August 1991) when cadmium exceeded the MCLs (IDEQ 2000). There is no current, long term or recurring water chemistry problems in the City of Ketchum’s drinking water sources. Arsenic, nickel, antimony, barium, selenium, chromium, cyanide and nitrate have been detected in Ketchum’s wells, but all were well below MCLs (IDEQ 2000). There is no long term or recurring water chemistry problems in the City of Hailey’s drinking water sources. Manganese, zinc, chromium, and mercury have been detected in Hailey’s wells, but all were well below MCLs (IDEQ 2001). Currently, there are no data that indicate that any metal concentrations have exceeded MCLs in the Bellevue drinking water systems (IDEQ 2000).

**Surface Water**

The Monday Mine is near the mouth of Seamen Gulch which is an ephemeral drain. There is no apparent mine drainage that flows towards or into Seamen Gulch. There are no indications of significant erosion of the Monday Mine waste dumps, nor are there any indications that any of the sediment generated have entered surface waters. Therefore there is no adverse affects to surface water users evident.

**Sensitive Species and Wetlands**

The national data base on wetlands inventories indicates that no jurisdictional wetlands exist within a two mile area below the mine site. Although wetland and riparian communities are present adjacent to the Big Wood River, no wetlands were observed at the site. Therefore, there are no indications that adverse affects as a result of development of or drainage from the Monday Mine.

Although the site is in the potential wolf range, wolves would most not have prolonged exposure to the waste dumps. Therefore, it does not appear as though the site could cause adverse affects in this sensitive species.
Conclusions and Recommendations

Based on existing conditions and uses and historic information, a mine waste sample was collected during the site visit. However based on the results of the waste sample analysis and the conclusions of the Source Water Assessments IDEQ has determined that No Remedial Action is Planned (NRAP) for this property.
However, there are sufficient quantities of mine wastes in proximity to a number of receptors with frequent exposure that makes some risk management appropriate. One possible risk management technique which could be used is, would be to provide signage at the base of the old road stating that “frequent or prolonged exposure to mine wastes at this site could be hazardous to health”, “Keep Out”, “No Trespassing” etc. Another more extreme method of risk management would be to fence off the access.

IDEQ did not note any dangerous openings or other physical hazards which should be managed or closed.

References


Blaine County, Idaho. 2007. Digital Parcel Map


Fish distribution (F&G).IDFG. Unpublished Material. Fish Presence (CDC IDF&G, STREAMNET)

Idaho Conservation Data Center, Idaho Department of Fish and Game. 2004. Gray Wolf (Species of concern CDC 2005)


Idaho Fish & Game, Idaho GAP Program, University of Idaho Landscape Dynamics Lab. 1999. Wetlands of Idaho (100K)
Idaho Department of Fish and Game, Idaho Conservation Data Center. 2007. Species of Concern (IDF&G-CDC)

Idaho Department of Fish and Game, Idaho Conservation Data Center. 2007. Species of Concern (Point Centroids)

Idaho Department of Water Resources. 2007. Permitted Wells (IDWR)

National Agriculture Imagery Program (NAIP). 2006. Digital Orthoimages

Tele Atlas North America, Inc., ESRI. 2006. Idaho Detailed Streets (100k)


USGS. 2007. USGS 24k Quads

U.S. Geological Survey in cooperation with U.S. Environmental Protection Agency and other State and local partners. 2006. National Hydrography Dataset (24K Flowlines)


Western Regional Climate Center (WRCC), 2007. http://www.wrcc.dri.edu/cgi-bin/cliGCStP.pl?id3942
APPENDIX A
ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist can be used to help the site investigator determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Bruce A. Schuld - IDEQ 11/16/07
(Name/Title) (Date)
1410 N. Hilton 208-373-0554
(Address) (Phone)
bruce.schuld@deq.idaho.gov (E-Mail Address)

Site Name: Monday Mine

Previous Names (if any):

Site Location: Seaman Gulch Road 1 mile west of Bellevue, Idaho
(Street)

Latitude: 43 27’ 35.44”N Longitude: 114 14’ 22.91”W

Describe the release (or potential release) and its probable nature: Sediment and heavy metals were suspected as having been release to the air and both surface an ground waters. Exposures to local residents, recreators, and wildlife was also suspected prior to completing a site visit.

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the site currently in CERCLIS or an “alias” of another site?</td>
<td>X</td>
</tr>
<tr>
<td>2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?</td>
<td>X</td>
</tr>
<tr>
<td>3. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?</td>
<td>X</td>
</tr>
<tr>
<td>4. Are the hazardous substances potentially released at the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?</td>
<td>X</td>
</tr>
<tr>
<td>5. Is there sufficient documentation to demonstrate that no potential for a release that could cause adverse environmental or human health impacts exists (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)?</td>
<td>X</td>
</tr>
</tbody>
</table>

Please explain all “yes” answer(s).
**Part 2 - Initial Site Evaluation**

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any of questions 1, 2, or 3, proceed directly to Part 3.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the site have a release or a potential to release?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Does the site have uncontained sources containing CERCLA eligible substances?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Does the site have documented on-site, adjacent, or nearby targets?</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Does documentation indicate that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (e.g., targets within 1 mile)?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Although the potential exists for a release the source is remotely located, the pathways are incomplete to viable receptors, or there is no indication at the proximity to receptors that and exposure(s) have occurred.
EXHIBIT 1 SITE ASSESSMENT DECISION GUIDELINES FOR A SITE

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. You will use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below.

<table>
<thead>
<tr>
<th>Suspected/Documented Site Conditions</th>
<th>APA</th>
<th>Full PA</th>
<th>PA/SI</th>
<th>SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are no releases or potential to release.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2. No uncontained sources with CERCLA-eligible substances are present on site.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>3. There are no on-site, adjacent, or nearby targets.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4. There is documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has not been exposed to a hazardous substance released from the site.</td>
<td>Option 1: APA SI Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Option 2: PA/SI No</td>
<td>No</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>5. There is not an apparent release at the site with no documentation of targets, but there are targets on site or immediately adjacent to the site.</td>
<td>Option 1: APA SI Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Option 2: PA/SI No</td>
<td>Yes</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>6. There is an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site.</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>7. There is no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site.</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Part 3 - EPA Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was "no," then an APA may be performed and the "NFRAP" box below should be checked. Additionally, if the answer to question 4 in Part 2 is "yes," then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the "Lower Priority SI" or "Higher Priority SI" box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

<table>
<thead>
<tr>
<th>Decision</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFRAP</td>
<td>Refer to Removal Program - further site assessment needed</td>
</tr>
<tr>
<td>Higher Priority SI</td>
<td>Refer to Removal Program – NFRAP</td>
</tr>
<tr>
<td>Lower Priority SI</td>
<td>Site is being addressed as part of another CERCLIS site</td>
</tr>
<tr>
<td>Defer to RCRA Subtitle C</td>
<td>Other: ____________________________</td>
</tr>
<tr>
<td>Defer to NRC</td>
<td></td>
</tr>
</tbody>
</table>

Regional EPA Reviewer: Bruce A. Schuld  
Print Name/Signature ______________________________ Date
PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION: No direct discharges of mine adit drainage to surface waters were identified, and the amount of wastes did not cover a large enough area to represent a significant source of human or ecological receptors. Therefore the source pathway and exposure were incomplete.

NOTES: