

Baltimore Mine

**(aka Baltimore and Victoria Patented Mining Claims
aka Bonanza Tunnel)**

Preliminary Assessment Report

Blaine County
State of Idaho



Department of Environmental Quality

December 2007

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



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

December 1, 2007

Carol Meyers
Baltimore Victoria Mining Company
c/o Terra Haute 1st National Bank
P.O. Box 540-Trust
Terra Haute, Indiana 47808

RE: Site Assessment of the Baltimore Mine aka Baltimore and Victoria Patented Mining Claims, Bonanza Tunnel and Adjacent Unpatented Claims TM 36, TM 37, TM 38, TM 42, TM43, and TM 52.

Dear Ms. Meyers:

The Idaho Department of Environmental Quality (IDEQ) has completed a review of available historical mining data and geological information for the mining claims referenced above. Subsequent to that review, IDEQ conducted a site visit of the Baltimore, Victoria, Ida Harland and Minnie Mae patented mining claims and workings. IDEQ also evaluated the unpatented mining claims from which the Bonanza Tunnel was driven since it was a major facility of the Baltimore Mine. During the site visit, mining facilities were mapped and sampled to complete the analysis necessary to complete a final Preliminary Assessment (PA) report on the Baltimore Mine. Because of an overlap with claims and workings in Independence Gulch, discussion of the claims and workings on the Idaho Harland and Minnie Mae will be presented in a separate report containing information about all of the claims and all of the workings in Independence Gulch. That report will not be completed until February of 2008.

Preliminary assessments 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

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- 4) To gather data to facilitate later evaluation of the release through the Hazard ranking System (HRS)

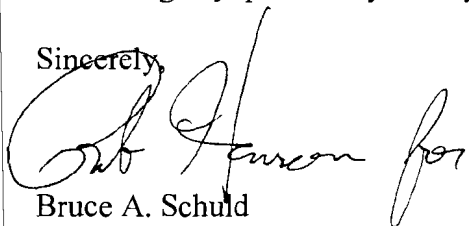
IDEQ has also completed PAs under contract with the U.S. Environmental Protection Agency in order to identify risks to human health and the environment, and to make recommendations to land owners regarding how risks might be managed under current site conditions and in future use scenarios.

Based on existing conditions and uses, historic information, data observations made during the site visit, and analysis of the mine wastes, potential pathways of contaminants to receptors, and potential exposures to ecological and human receptors, IDEQ has determined that No Remedial Action is Planned (NRAP) for the Baltimore or Victoria patented mining claims and adjacent unpatented claims TM 36, TM 37, TM 38, TM 42, TM43, and TM 52. However, should site conditions or uses change in the future, owners of these properties would be well advised to conduct more thorough site investigations and incorporate risk management in their development and/or operating plans. Lastly, IDEQ did not note any mine openings that are (currently) physical hazards.

Attached is an "abbreviated" Preliminary Assessment Report of the properties and mine facilities. The report contains copies of historic mining reports, geologic information, data results, and maps of the properties, along with a brief checklist of how IDEQ came to its recommendation 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.

Sincerely,



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

Attachments

cc: Ken Marcie – U.S. Environmental Protection Agency
Jeff Gabardi – USDA Sawtooth National Forest
Megan Stelma – Blaine County
file

SECTION 1

The relative per cent of ownership and listed owners is not warranted by the Idaho Department of Environmental Quality. The following names and addresses of owners and their relative percentage of ownership were obtained from the tax rolls at the Blaine County Tax Assessor's Office.

Ownership

Contacts:

Carol Meyers (Trustee)
Baltimore Victoria Mining Company
Terra Haute 1st National Bank
P.O. Box 540
Terra Haute, Indiana 47808
812-238-6218
cmeyers@first-online.com

Claims and Per Cent Ownership:

Baltimore
Victoria

U.S.D.A.	TM 36
Sawtooth National Forest Service	TM 37
2647 Kimberly Road East	TM 38
Twin Falls, Idaho 83301	TM 42
Attn: Jeff Gabardi	TM 43
208-737-3205	TM 52

SECTION 2

Introduction

This document presents the results of the preliminary assessment (PA) of the Baltimore Mine and claims. The Department of Environmental Quality (DEQ) 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.

DEQ 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.

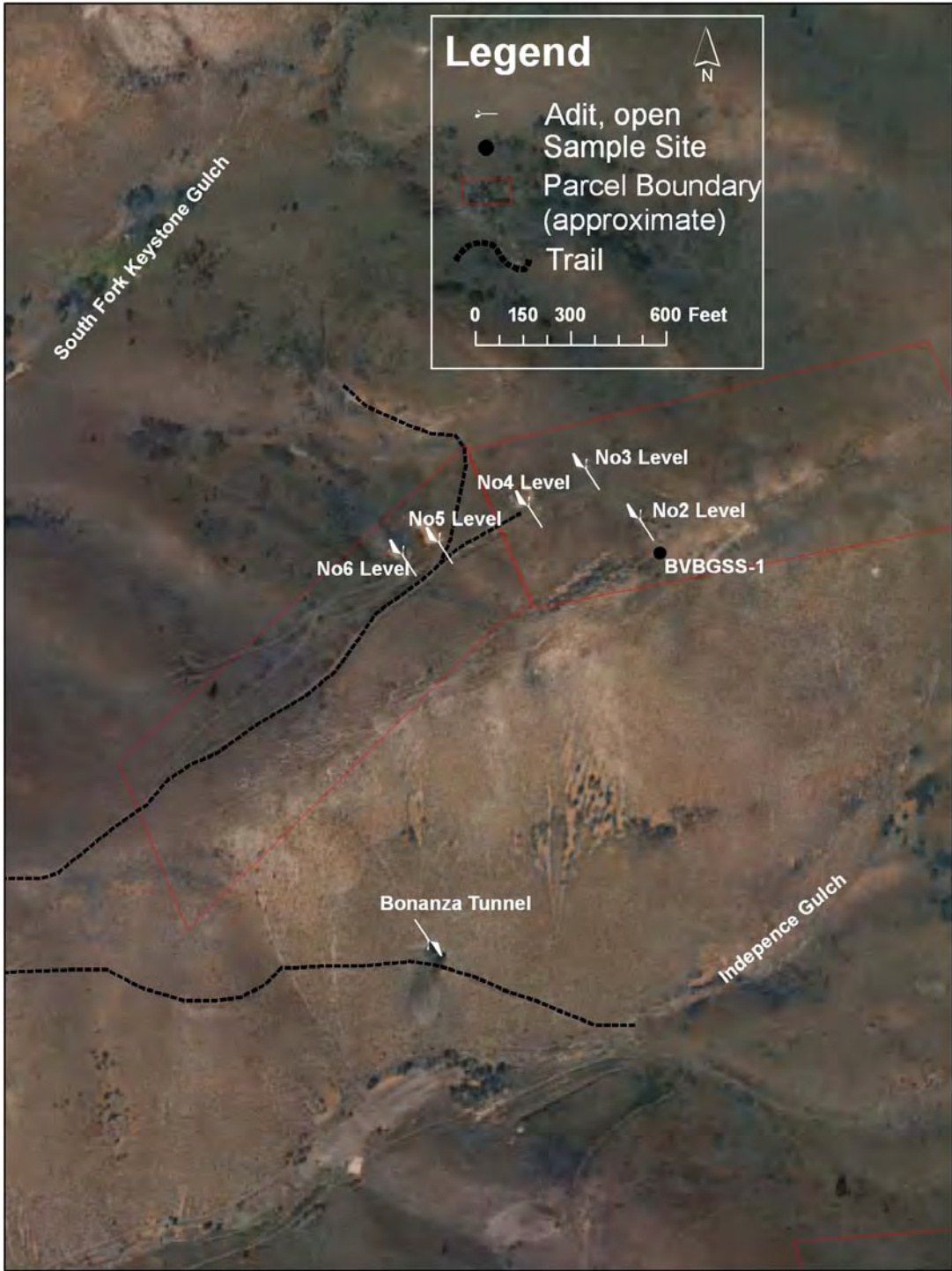
In February 2002, DEQ initiated a Preliminary Assessment Program to evaluate and prioritize assessment of such potentially contaminated sites. Due to accessibility and funding considerations, priority is given to sites where potential contamination poses the most substantial threat to human health or 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 Baltimore and Victoria patented mining claims was provided by Ms. Carol Meyers Trustee for the Baltimore-Victoria Mining Company.

Access to the patented claims around the Baltimore Mine is gained by traveling east from Sun Valley up Independence Gulch approximately 2 miles to the Independence mill site. From there an abandoned mine road traverses northwestward on the northern slope of Independence Gulch past the adit and waste dump for the Bonanza Tunnel, which is partially on unpatented land, and once the road reaches the ridgeline it turns to the northeast and parallels the ridgeline on the north face above the South Fork of Keystone Gulch to the rest of the Baltimore workings.



SECTION 3

Mine Site History

The Baltimore Victoria Mining Co, (aka Baltimore Silver Lead Co.) Property consisted of: four patented mining claims including the Baltimore, Victoria, Ida Harland and Minnie Mae; and six unpatented mining claims.

The Baltimore Mine was one of the earliest discoveries and explorations in the Mineral Hills Mining District (Anderson et al). There aren't any records of significant production but it was reported that several carloads (rail) containing 10% lead 14 % zinc, and 12 oz/ton silver were left on dumps.

The Bonanza Tunnel was driven from Independence Gulch (above the Independence mill site) about 800 feet north to intercept the Baltimore vein at depth. Five (No.2 – No.6) other levels were driven south from above the South Fork of Keystone Gulch to intercept the vein at shallower depths. The Bonanza was collared on what was an unpatented claim (aka TM 37). The mine dump is wholly on USDA administered lands.

SECTION 4

General Geology

The Hailey-Bellevue mineral belt is underlain by a varied assemblage of sedimentary and igneous rocks, which, except for volcanics of mid-Tertiary age and some still younger unconsolidated sedimentary rocks, are all older than the ore deposits. The earlier rocks include fairly wide exposures of the Milligen and Wood River formations that host many of the ore deposits in the Wood River region. They also host rather large intrusive bodies of diorite and quartz monzonitic rock which are regarded as outliers of the Idaho batholith. There is a younger group of intrusive rocks which are of more pertinent interest because of their close association with the mineralization....In addition to the Milligen formation (Mississippian age) and the Wood River formation (Pennsylvanian age), the area contains some strata in and beneath a series of Tertiary volcanics (Oligocene) and much poorly consolidated and unconsolidated slope wash, terrace gravels, and stream alluvium of Quaternary age.

Anderson, 1950, p. 2

Anderson (p 7) went on to note that, “*The folding within the area is comparatively simple and consequently faulting constitutes the outstanding feature.*”

Numerous studies of the geology and mineral resources of the Wood River and adjacent areas have been made. Geologic studies have been conducted to investigate mineral deposits (Lindgren, 1900 & 1933; Umpleby et al, 1930; Anderson and Wagner, 1946; Anderson et al, 1950; Hall et al, 1978; Wavra and Hall, 1989; Link and Worl, 2001; Worl and Lewis, 2001); individual formations and units (Hall et al, 1974; Sandberg et al, 1975; Wavra and Hall, 1986; Worl and Johnson, 1995); quadrangles (Batchelder and Hall, 1978; Mitchell et al, 1991; Kiislgaard et al, 2001) and to compile regional information (Rember and Bennett, 1979). Preliminary and environmental assessment investigations have been conducted to assess current

and potential impacts from historic mining in the region (Mitchell and Gillerman, 2005; IDEQ, 2002 & 2006; IDEQ & USEPA, 2006 & 2007).

SECTION 5

Current and Future Potential Beneficial Uses

Current land uses in the area include biking, hiking, hunting, horseback riding and off-road vehicle touring, timber harvest and mineral exploration. Currently, there are no indications of active mining operations.

Due to its remoteness and the potential for avalanches, it is very unlikely that full time residences would be developed on these patented mining claims. There is a potential for development of season housing such as hunting cabins, or housing and mine buildings if mineral values made it conducive to redevelop operations of these claims. There have been no communications with land owners that indicate that there is any desire to develop these claims in the future.

SECTION 6

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.

Site Conditions and Waste Characterization

No precipitation data is available for the Baltimore Mine. Therefore, precipitation data, maintained from 1948 through 1988, was used from a recording station located 3 miles north-northwest from Hailey at an elevation of 5,350 feet amsl. The mean annual precipitation is 15.89 inches, and the 100-year, 24-hour event is 2.68 inches (WRCC, 2007).

Generally speaking, the mine workings on the Baltimore and Victoria claims are high in elevation and skirt ridgelines. There is drainage from the Bonanza Tunnel caved adit. There is evidence, in the ephemeral drains immediately beneath the workings, of riparian or wetland communities. A water sample and waste dump sample was collected on these claims and workings.

Accuracy for the location of mine openings and waste dumps on the claim is questionable because mapping was conducted using GPS, county maps, and patented plat maps, none of which have been tied together by a land survey. Therefore IDEQ does not warrant any of the maps, or diagrams contained in this Preliminary Analysis.

There are six openings (caved) on the Baltimore and Victoria. Although these workings were extensive, covering several thousand feet, the dumps, except the Bonanza Dump, are generally less than 200 cubic yards. None of them contain massive sulfide mineralization, and that may be indicative that there was no significant ore production.



Minor drainage (approximately 1 gpm) flowing from the Bonanza Tunnel. Orange precipitates, prompted collections of IMWD6SW-1 (May 2007)



Bonanza Tunnel Waste Dump contains approximately 15,000 yd³ of waste rock (IMWD6SS-1) that is well mixed and contains some massive sulfides. The adit drainage forms a small pond on the dump, but no drainage appears at its base. There are collapsed buildings w/o significance. (May 2007)

Most of the dumps on the Baltimore were small. However Waste Dump #3, which was later determined to be Level #5 according to historic records was greater than 1500 cubic yards and therefore sampled (BVWD3SS1). The Bonanza Tunnel Waste Dump is the largest of the dumps and contains approximately 15,000 yd³ of waste rock. The Bonanza Waste Dump was also sampled (IMWD6SS-1). A background sample (BVBGSS-1) of soils above the Level #2 Adit was collected for comparisons.

Baltimore Mine Soil Samples

Description	IDEQ IDTL values	EPA Region 6 PRGs	Baltimore Victoria Mine Site background sample	Baltimore Victoria Mine Waste Dump#3 (aka Level #5)	Bonanza Tunnel Waste Dump aka Independence Waste Dump #6
			BVBGSS-1	BVWD3SS-1	IMWD6SS-1
Aluminum					
Antimony	4.77	31			
Arsenic	0.391	23	205	455	56.9
Barium	896	1600	172	182	74.4
Beryllium	1.63	160			
Cadmium	1.35	39	97.2	123	6.86
Calcium					
Chromium	7.9	210	7.82	8.68	33.1
Cobalt		900			
Copper	921	2900	75.3	230	48.4
Iron		55000	29900		
Lead	49.6		365	6910	174
Magnesium					
Manganese	223	3600			
Mercury	0.00509	23	0.442	3.2	0.128
Nickel	59.1	1600			
Potassium					
Selenium	2.03	390	9	22	<4
Silver	0.189	390	4.24	45.5	<0.050
Vanadium		390			
Zinc	886	23	7750	14200	629

The analysis for the soil samples are contained in Table 1 following table. Samples BVBGSS-1, BVWD3SS-1 and IMWD6SS-1 were both coarse (+ 50% +10 mesh) light brown to grey, and contained no visible organic materials. The samples appear to be typical of wastes generated by tunnels driven through the Milligen formation in that they are dominantly shale with little or no obvious vein material.

Essentially, the mine waste concentrations for total arsenic, cadmium, lead, mercury and zinc appear to be the only metals with elevated concentrations in the wastes. These metals exceed all Idaho's *Initial Default Target Levels* (IDTLs) in each of the samples. The metals concentrations, except mercury, also exceed the EPA Region 6 Preliminary Remedial Goals for Human Health. However, only

concentrations of lead in the sample collected on the Level #5 (Waste Dump #3) exceeded background conditions by greater than three times.

The 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. These numbers, although used for comparison even at remote locations, are more applicable to sights where it is expected to see “unrestricted uses” such as residential development. Similarly, the Region 6 PRGs are human health based risk derived for cleanup goals where residents are at risk for exposure. Relative to both comparison there are no current residents on the property or within two miles of the site. Therefore, the risks for exposure are di minimus.

**Baltimore Mine - Bonanza Tunnel Discharge
Mine**

	IDEQ Ground Water Standard	IDEQ Drinking Water Standard	IDEQ Cold Water Biota Standard	IDEQ Cold water Biota Standard	Bonanza Tunnel Waste Dump
			Acute	Chronic	IMWD6SW1
Description					Totals
Aluminum	0.05				
Antimony					
Arsenic	0.05	0.00002 (D)	0.36 (D)	0.19 (D)	< 0.025
Barium					0.0173
Beryllium					
Cadmium	0.01		0.0037 (D)	0.001 (D)	<0.0020
Calcium					
Chromium	0.05		0.157 (D)	0.18 (D)	<0.0060
Cobalt					
Copper	1		0.017 (D)	0.0106 (D)	
Iron	0.3				
Lead	0.05		0.065 (D)	0.0025 (D)	
Magnesium					
Manganese	0.05				
Mercury	0.002	0.00014 (D)	0.00204 (D)	0.000012 (T)	
Nickel		0.61 (D)	1.4 (D, H)	0.16 (D, H)	
Potassium					
Selenium	0.01		0.02 (T)	0.005 (T)	
Silver	0.05		0.0034 (D)		< 0.005
Vanadium					
Zinc	5		0.11 (D)	0.10 (D, H)	

The Bonanza Tunnel, which was originally mapped by IDEQ as the Independence Adit #6, had a low volume (< 5 gpm) discharge. It was sampled (IMWD6SW-1) even though there was no background against which to compare it. The sample was analyzed for five metals, and total metals concentrations were well below drinking water and cold water biota standards.

SECTION 7

Pathway and Environmental Hazards

General

There are not any residences, schools or day-care facilities within 200 feet.

Air

Concentrations of metals in wind borne fugitive dust have been the driving force behind cleanups in the former mining properties of the Wood River area, particularly at the Triumph Mine Site and Minnie Moore Tailings Impoundment. However, the Baltimore waste dumps appear to be too coarse in texture and are mostly sheltered from wind with brush for fugitive dust generation from the dumps.

Groundwater

During the cleanup activities of the nearby Triumph Mine, one of the first concerns was related to potential human health risks as a result of contamination of public and private drinking water supplies. Generally speaking, contamination of drinking water systems was thought likely to occur from two types of sources (ore bodies and waste dumps) and along three pathways, as illustrated by the following three scenarios. Through the first pathway, heavy metals are leached from mine waste dumps, enter ephemeral or perennial drains and then contaminate the area's shallow ground water system. Through the second pathway, heavy metals leach from the local ore bodies and are transported through the geologic structure to the shallow ground water. Through the third pathway, heavy metals could leach out of the ore bodies, and be discharged from the underground workings as adit water, that is then conveyed through ephemeral and perennial drains to the 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 any known affects to those systems. Although IDEQ's Source Water Assessments were used to evaluate potential affects of this mine on public drinking water supplies, no inferences can be made about the affects that this and adjoining mines have on local private wells.

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**).

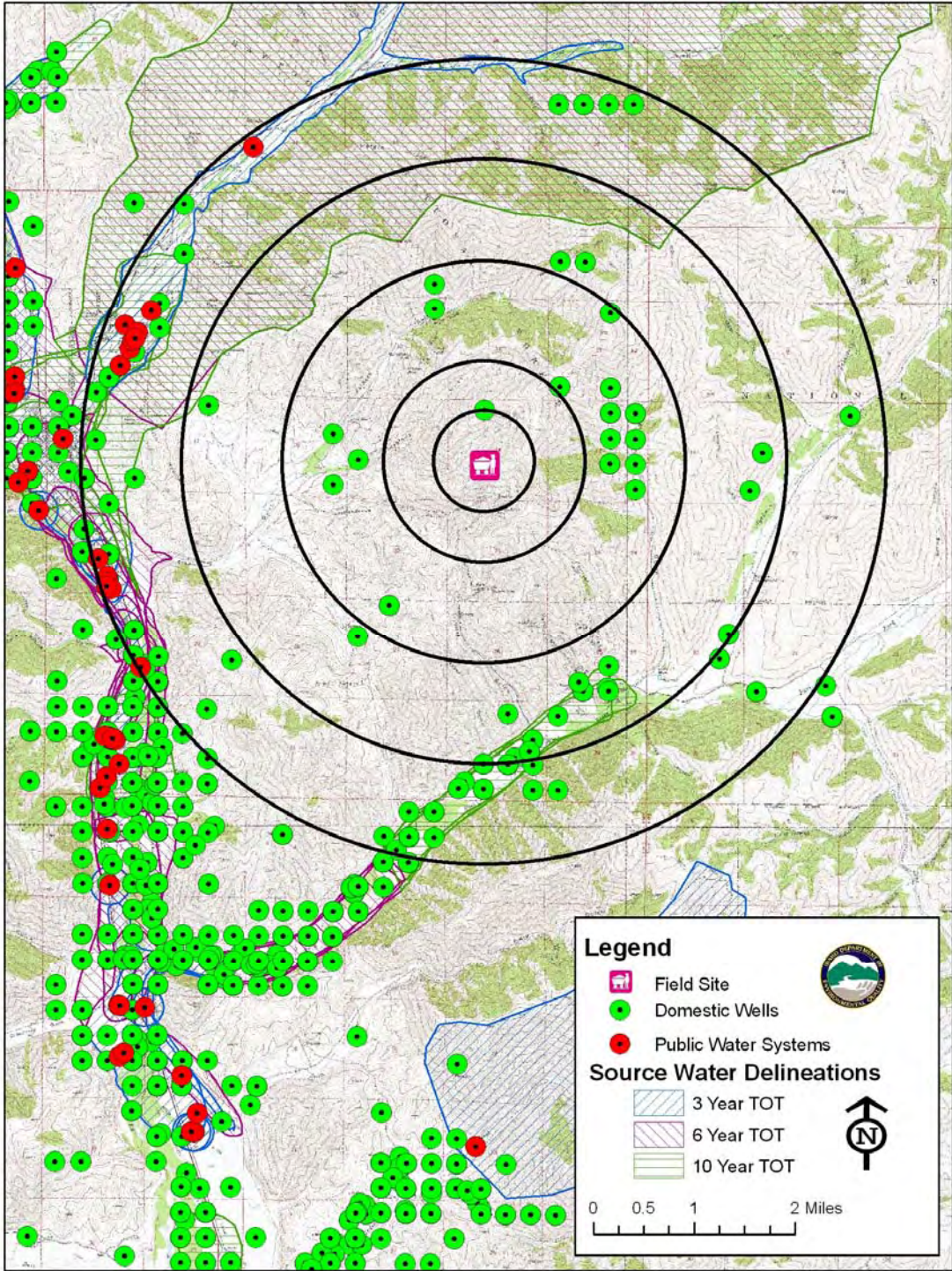
Each assessment is summarized in a [report](#) that describes the above information and provides maps of the location of the public water system, the source area delineation, and the locations of potential contaminant sources. Idaho began developing source water assessments in 1999, and in May 2003 met 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.



This 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 waters 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.

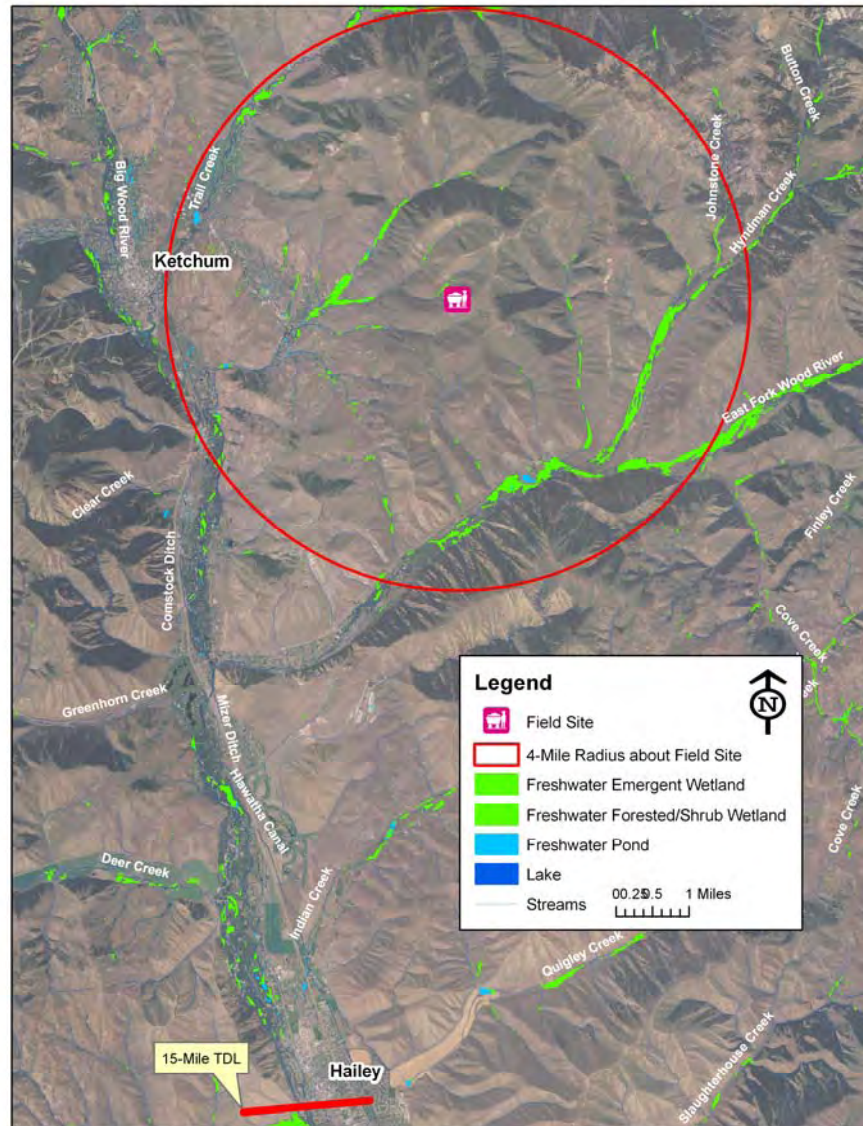
To date, routine water quality monitoring of public drinking water indicates that there are no significant volumes of heavy metals migrating through the regional or localized ground water systems. More specifically, there are not any long-term or recurring water chemistry problems in the Sun Valley Water 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 Baltimore Mine is high above the two ephemeral drains, South Fork of Keystone Gulch and Independence Gulch. There does not appear to be any adit drainage or direct conduit between the workings and the South Fork of Keystone Gulch. Although there is, intuitively, a connection between the adit drainage from the Bonanza Tunnel and Independence Gulch the heavy metals concentrations are lower in the adit drainage than found in Independence Gulch below the Independence Mill site. This infers that the flows may either mix with other contaminated flows or they may mobilize metals from other sources lower in Independence Gulch. However, samples of the spring boxes lower in Independence Gulch, which will be discussed in IDEQ's Final Preliminary Assessment Report for the Independence Mine and Millsite, indicate that surface and ground waters are not significantly impacted by heavy metals from any mining or milling wastes.

Wetlands

Numerous wetlands and riparian communities occur within a three mile radius of the site particularly in the South Fork of Keystone Gulch and Keystone Gulch. However, there are no indications that significant overland flows, seasonal or otherwise, have delivered mine wastes to those wetlands.



Sensitive Species

The site lies within potential wolf range. However, since wolves range over a wide area, exposure to heavy metals at this site and potentially within the adjacent stream/pond is likely limited. Therefore, it does not appear as though the site could cause adverse affects in this sensitive species.

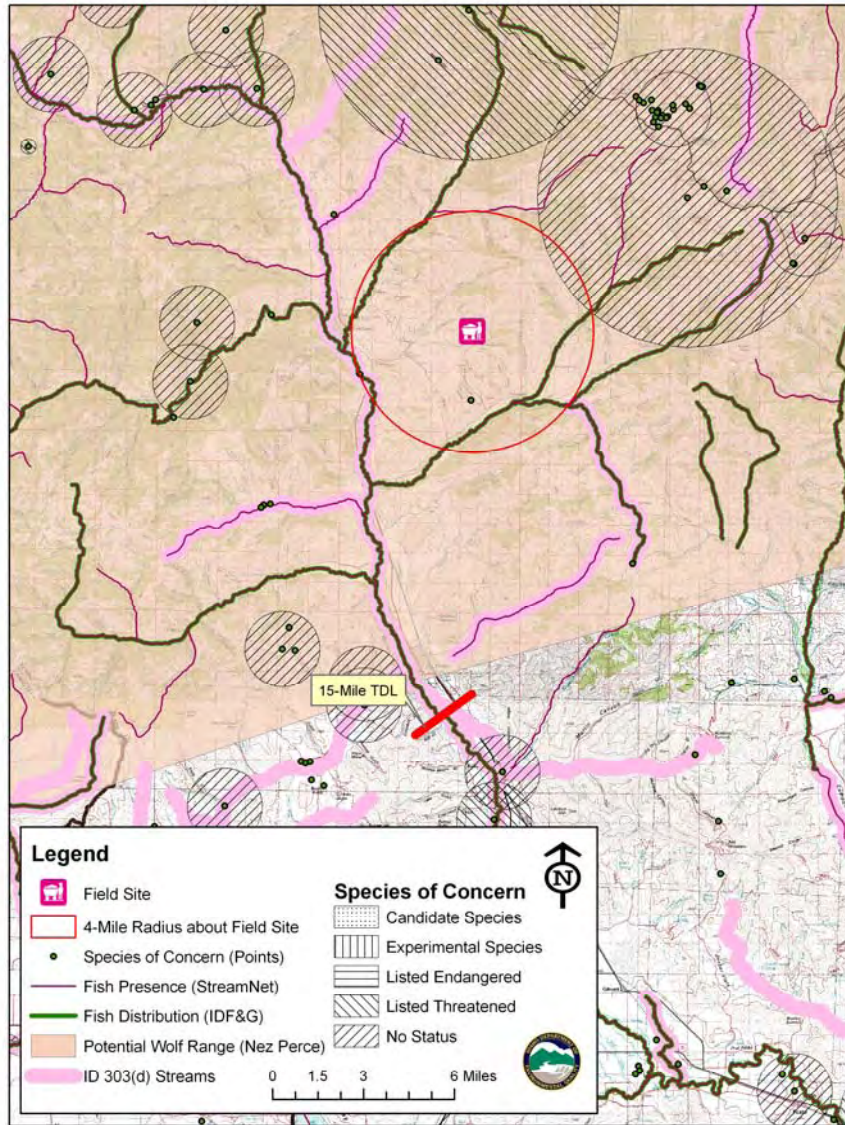


Figure 1

Conclusions and Recommendations

Based on existing conditions and uses and historic information, the IDEQ has determined that No Remedial Action is Planned (NRAP) for this property is warranted. Although IDEQ's Source Water Assessments were used to evaluate potential affects of this mine on public drinking water supplies no inferences can be made about the affects that this and adjoining mines have on local private wells. Private well owners are advised that routinely testing their wells for metals and other potentially harmful contaminants is a good practice. Furthermore, based on the historical information regarding mine development and production, IDEQ recommends if development is planned for the mine site, particularly for residential purposes, a more thorough site characterization is completed and plans should include risk management provisions.

The Baltimore Victoria claim has at least one adit and one inclined shaft. The inclined shaft is open to an unknown depth, a portion of which appears flooded. The adjacent adit is partially open as well. Both of these workings warrant closure to minimize safety hazards. If constructions of homes or other buildings do occur above mine workings, unstable ground conditions or subsidence may be experienced.

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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 (Name/Title) 11/16/07 (Date)
 1410 N. Hilton (Address) 208-373-0554 (Phone)
bruce.schuld@deq.idaho.gov (E-Mail Address)

Site Name: Baltimore Mine (aka Baltimore Claim aka Victoria Claim)

Previous Names (if any): aka Bonanza Tunnel

Site Location: Mammoth Gulch Road 1.5 miles east of Sun Valley, Idaho
 (Street)

Latitude: 43 40' 36.77"N

Longitude: 114 16 44.75"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.

	YES	NO
1. Is the site currently in CERCLIS or an "alias" of another site?		X
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		X
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, UMRCA, or OSHA)?		X
4. Are the hazardous substances potentially released at the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		X
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)?		X

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.

	YES	NO
1. Does the site have a release or a potential to release?	X	
2. Does the site have uncontained sources containing CERCLA eligible substances?	X	
3. Does the site have documented on-site, adjacent, or nearby targets?	X	

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

	YES	NO
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?		X
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?		X
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)?		X
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?		X

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.

Suspected/Documented Site Conditions		APA	Full PA	PA/SI	SI
1. There are no releases or potential to release.		<u>Yes</u>	No	No	No
2. No uncontained sources with CERCLA-eligible substances are present on site.		<u>Yes</u>	No	No	No
3. There are no on-site, adjacent, or nearby targets.		<u>Yes</u>	No	No	No
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.	Option 1: APA SI	<u>Yes</u>	No	No	Yes
	Option 2: PA/SI	No	No	Yes	NA
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.	Option 1: APA SI	<u>Yes</u>	No	No	Yes
	Option 2: PA/SI		No	Yes	NA
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.		No	<u>Yes</u>	No	No
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.		<u>No</u>	Yes	No	No

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:

<input type="checkbox"/>	NFRAP	Refer to Removal Program - further site assessment needed
<input type="checkbox"/>	Higher Priority SI	Refer to Removal Program – NFRAP
<input type="checkbox"/>	Lower Priority SI	Site is being addressed as part of another CERCLIS site
<input type="checkbox"/>	Defer to RCRA Subtitle C	Other: _____
<input type="checkbox"/>	Defer to NRC	

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: