

Allen Mine

(aka, Allen Group, Tom Rogers Lode and Alpine Lode patented mining claims)

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



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

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

November 29, 2007

Mr. Robert Bloomfield
P.O. Box 1133
Bellevue, Idaho 83313

RE: Site Assessment of the **Allen, Tom Rogers & Alpine** Lode claims.

Dear Mr. Bloomfield:

The Idaho Department of Environmental Quality (IDEQ) has completed a review of historical mining data and geological information for the above referenced claims. Subsequent to that review IDEQ conducted a site visit of the **Allen, Tom Rogers & Alpine** lode claims (Allen Mine). During the site visit, mining facilities were mapped and sampled to complete the analysis necessary to complete a final Preliminary Assessment (PA) report. Associated mill sites on Warm Springs Road were not evaluated as these mill sites have since been subdivided, and all property owners did not give IDEQ legal access. Based on DEQ's analysis, DEQ is recommending that no additional site assessment is conducted and No Remedial Actions are Planned for these properties.

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
- 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

Letter to R. Bloomfield

November 29, 2007

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land owners regarding how risks might be managed under current site conditions and in future use scenarios.

All metals exceedences indicate that additional site characterization and risk management may be warranted. As will be discussed in "Pathways and Receptors" the mine sites are remotely located high on a hillside beyond where most human receptors would go, and where future development is unlikely, therefore, risks are likely de minimus. However, if development is planned for these properties, additional site characterization and risk management is recommended.

There is one apparent mine opening or physical hazards on this property that may warrant closure to protect occasional visitors. However, if development were to occur on the property, this opening should be closed, and there may be some risk of subsidence beneath structures placed over abandoned workings.

Attached is an "abbreviated" Preliminary Assessment Report of the properties and mine facilities. The report contains historic mining and geologic information, data results, if any, and maps of the properties, along with a brief checklist of how IDEQ arrived at its recommendations.

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. Schul
Mine Waste Projects Coordinator
Waste Management and Remediation Division

Attachments

cc: Ken Marcie – U.S. Environmental Protection Agency
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:

Robert Bloomfield
P.O. Box 1133
Bellevue, Idaho 83313

Claims and Per Cent Ownership:

Allen Lode Claim	100%
Tom Rogers Lode Claim	100%
Alpine Lode Claim	100%

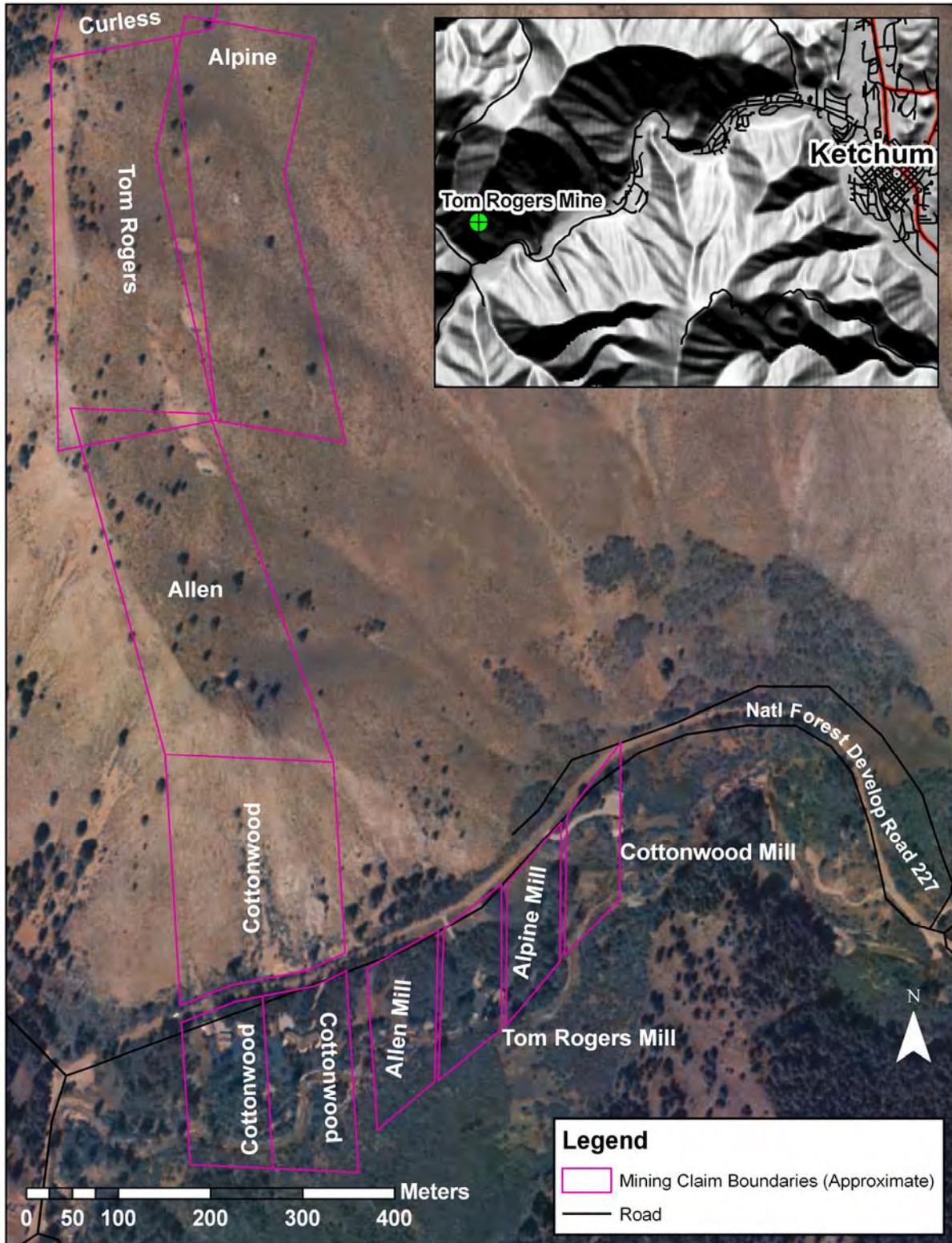


Figure 1: Location Map

SECTION 2

Introduction

This document presents the results of the preliminary assessment (PA) of the Allen, Tom Rogers & Alpine lode and mill 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 Warm Springs 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 Allen, Tom Rogers & Alpine patented lode claims (Allen Mine) was provided by Mr. Robert Bloomfield (owner). Access to the Allen Mine is gained by traveling west from Ketchum, Idaho on Warm Springs Road (aka, National Forest Develop Road 227) for approximately 5.5 miles, approximately 0.4 miles before the Log Lane intersection (bearing northwest). The Warm Springs Road is paved for 3 miles after which it turns into an improved gravel road. The lode patents are situated several hundred feet above the road on a steep, south-facing slope (see Figure 1).

SECTION 3

Mine Site History

The lode and mill claims were patented in 1894 by William H. Stevens. The U.S. Geological Survey's (USGS) Mineral Resources DATA SYSTEMS (USGS, 2007) noted the property produced gold, silver, lead and copper, but the dates of discovery and operation were not known. Based upon the character and composition of the ore, as described in the following statements, it is presumed that the ore was transported to the nearby Ketchum smelter for processing.

Three groups of claims on the West Fork of Warm Springs Creek about 5 miles west of Ketchum produced a considerable amount of ore between 1880 and 1885. The principal mines were known as the West Fork, the Moonlight about a mile north of it, and the Allen about a mile southeast of it. All are situated between altitudes of 7,000 and 8,000 feet. The West Fork produced about \$50,000; each if the others somewhat less. In the West Fork group there was one eastward-trending vein cut by five westward-dipping, flat-lying faults,

which caused offsets of as much as 100 feet. Most of the ore was mined within 100 feet of the surface. In addition to this vein there were two north-south veins. One of these cropped out at the surface for a distance of about 50 feet, and pillars now remaining in the stope show that the vein was made up of about 8 inches of clean galena ore bordered on the hanging-wall side by crushed limestone only slightly mineralized...The Allen vein was similar in characteristics but somewhat less faulted. It was worked to a depth of about 150 feet.

Umpleby, et al 1930, pp.196-97

In a report to Congress in 1884, the following information concerning the Allen “group” is included.

The Allen group, owned by William H. Stevens, Thomas W. Buzzo & Co., consists of five claims, on which are two veins, the upper exposed by a series of cuts, tunnels, and shafts for 1,500 feet; the lower by same means for 800 feet. From the junction they are traceable as one ledge for 1,500 feet. They lie in lime and vary from 6 to 60 inches in thickness. The galena in several places is from 10 to 24 inches thick, and the chutes thus exposed run for considerable distance. The ore assays from 120 to 180 ounces silver and 65 per cent lead.

GPO, 1884, p. 457

SECTION 4

Geology and Mineral Deposits

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

Fryklund (1950, pp. 65-66) noted the following in regards to the structure of the rocks:

The most obvious and significant structural features of the area are the major faults or fault zones which divide the area into a number of distinct blocks...The age of the oldest faults are to be placed as pre-intrusive and possibly all the major faulting is pre-intrusive...All of the major faults are probably pre-mineral as well as pre-intrusive.

The Allen Mine’s lithology is consistent with the Permian-Pennsylvanian age Wood River formation, including outcrops of tan-gray sandy limestone or calcareous sandstone. Bedding appears to strike northwest and dips steeply to the southwest. A well-defined mineralized

fracture zone outcrops above Adit 4 and extends more than 200 feet toward Adit 2. A “bull” quartz vein outcrops across the southeastern portion of the Alpine claim and appears to parallel bedding (see Figure 2).

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); 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; Kiisigaard 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. Currently, there are no indications of active mining operations.

The property is located on a steep hillside and is not serviced by either roads or trails. There has not been any communication with land owners that indicate that there is any desire to develop these claims in the future.

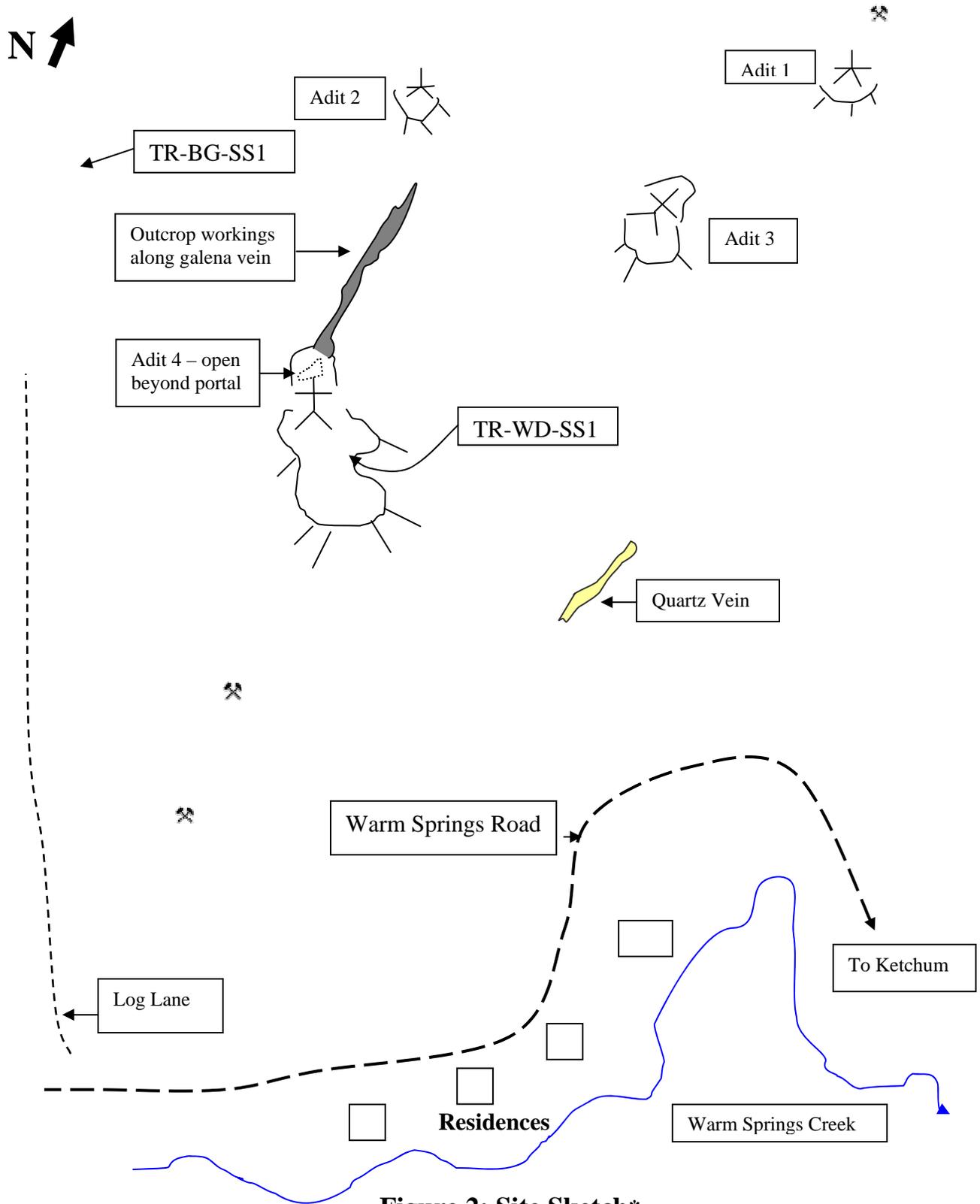


Figure 2: Site Sketch*

*Figure 2 Site Sketch is not to scale particularly relative to mine workings proximities to public roadways.

SECTION 6

Site Conditions and Waste Characterization

Generally speaking, the workings at the Allen Mine are particularly visible when traveling westward on Warm Springs Road. However, as there are not any roads or trails leading to these claims and the hillside is extremely steep, the site is not readily accessible. There is not any evidence of springs or drainage from any of the open or caved adits. There is not any evidence, in the ephemeral drains immediately beneath the workings, of riparian or wetland communities, though these communities are represented along Warm Spring Creek which lies approximately 0.5 miles to the south. No water samples were collected at or near these claims.

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 Assessment.

Based upon historical information, most of the workings of the Allen Mine are assumed to be shallow (<150 ft). Most of the waste dumps that remain on the hillside are very small (less than 50 – 250 cubic yards). However, the Adit # 4 waste dump which measured approximately 1,000 cubic yards was dotted with sulfide mineralization. Galena veins were observed in outcrop near the portal. The sample (TR-WD-SS1) was collected in a small area of the dump near where it appeared that a relatively recent excavation had been conducted. A background sample (TR-BG-SS1) was collected at the base of an outcrop, approximately 200 feet northwest of Adit # 4. The analyses are contained in Table 1. None of the remaining waste dumps contains significant sulfides to warrant sampling.

The Allen Mine includes four adits and several prospects. The portal to Adit # 4 is collapsed, but a small opening exists at the outcrop face, above. Here, the nearly vertical fractures reveal veins of galena, some 2-3 inches thick. As inclination and depth of the working is unknown, potential entry may pose a significant physical hazard.

Essentially, the both background soils and mine waste concentrations for total arsenic, total cadmium, total lead, total mercury, total selenium, 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.

Mine waste exceeds background concentrations for total cadmium, total copper, total lead, total mercury, total selenium, total silver and total zinc by more than three times (3Xs).

Both background and mine waste concentrations for total cadmium, total lead, total mercury, total selenium, total silver and total zinc exceed EPA Region 6's Preliminary Remedial Goals (PRG). The PRG numbers, although used for comparison even at remote locations, are more applicable in locations where these types of contaminants are determined to be readily available to

receptors, and where exposures might produce an acute or chronic toxicological effect in a population.

All metals exceedences indicate that additional site characterization and risk management may be warranted. As will be discussed in “Pathways and Receptors” the mine sites are remotely located high on a hillside beyond where most human receptors would go, and where future development is unlikely and risks are likely de minimus. However, if development is planned for these properties, additional site characterization and risk management is recommended.

Table 1: Total Metals Analysis

Allen-Tom Rogers-Alpine

Description	EPA Region 9 IDTLs PRGs		Sample No. TR-BG-SS1	Sample No. TR-WD4-SS1
	Units: mg/kg			
Aluminum		76000		
Antimony	4.77	31		
Arsenic	0.391	.39	17.2	594
Barium	896	5400	141.0	11.4
Beryllium	1.63	1500		
Cadmium	1.35	37	3.91	55.3
Calcium				
Chromium	7.9	210	8.55	4.49
Cobalt		900		
Copper	921	3100	17.9	509
Iron		23000	12700	
Lead	49.6	400	245	56300
Magnesium				
Manganese	223	1800		
Mercury	0.00509	23	0.153	6.48
Nickel	59.1	1600		
Potassium				
Selenium	2.03	390	<4.0	26.0
Silver	0.189	390	0.8	253
Vanadium		78		
Zinc	886	23000	355	10100

Allen, Tom Rogers & Alpine Patented Claim Photos



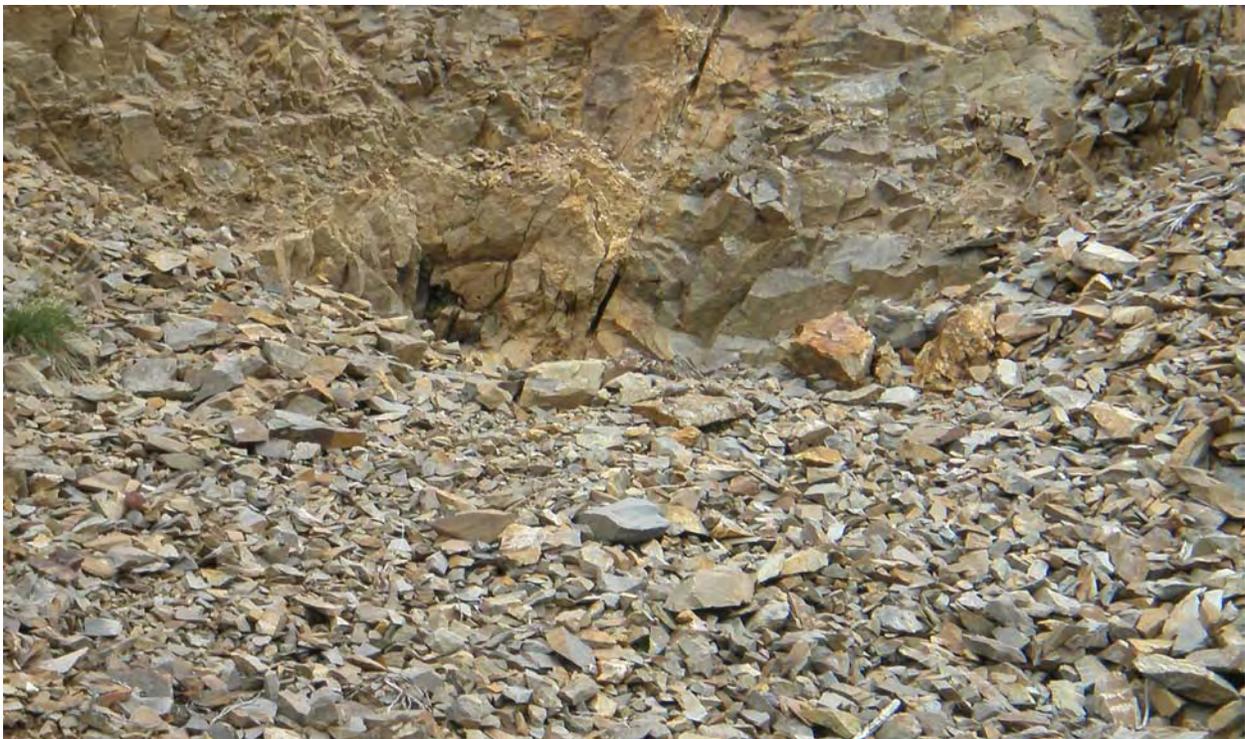
Overview of Allen Mine workings: Adit #4 and outcrop working at left; Adit #3(top center); bull quartz vein (center right).



Adit # 3 at upper left; Adit # 4 at upper center; prospect at far right



Adit # 4 (larger waste dump at left); outcropped mineralized veins & surface workings above; Adit # 3 at far right



Collapsed portal of Adit # 4, opening (not in picture) at face of outcrop; galena veins filling fractures (dark lines)



Residence located immediately to the south, across Warm Springs Road from the Allen Mine claims; situated along Warm Springs Creek

SECTION 7

Pathway and Environmental Hazards

No precipitation data is available for the Allen Mine. Therefore, precipitation data, maintained from 1948 through 1972, was used from a recording station located approximately 1 mile south of Sun Valley at an elevation of 5,980 feet amsl. The mean annual precipitation is 17.26 inches, and the 100-year, 24-hour event is 2.16 inches (WRCC, 2007).

There are not any residences, schools or day-care facilities within 200 feet. The nearest residence is located approximately 0.4 miles south on Warm Springs Road. Warm Springs Creek lies adjacent and to the south of the residence. Several residences, located along Warm Springs Road, are within 1.5 miles to the south and southeast from the mine.

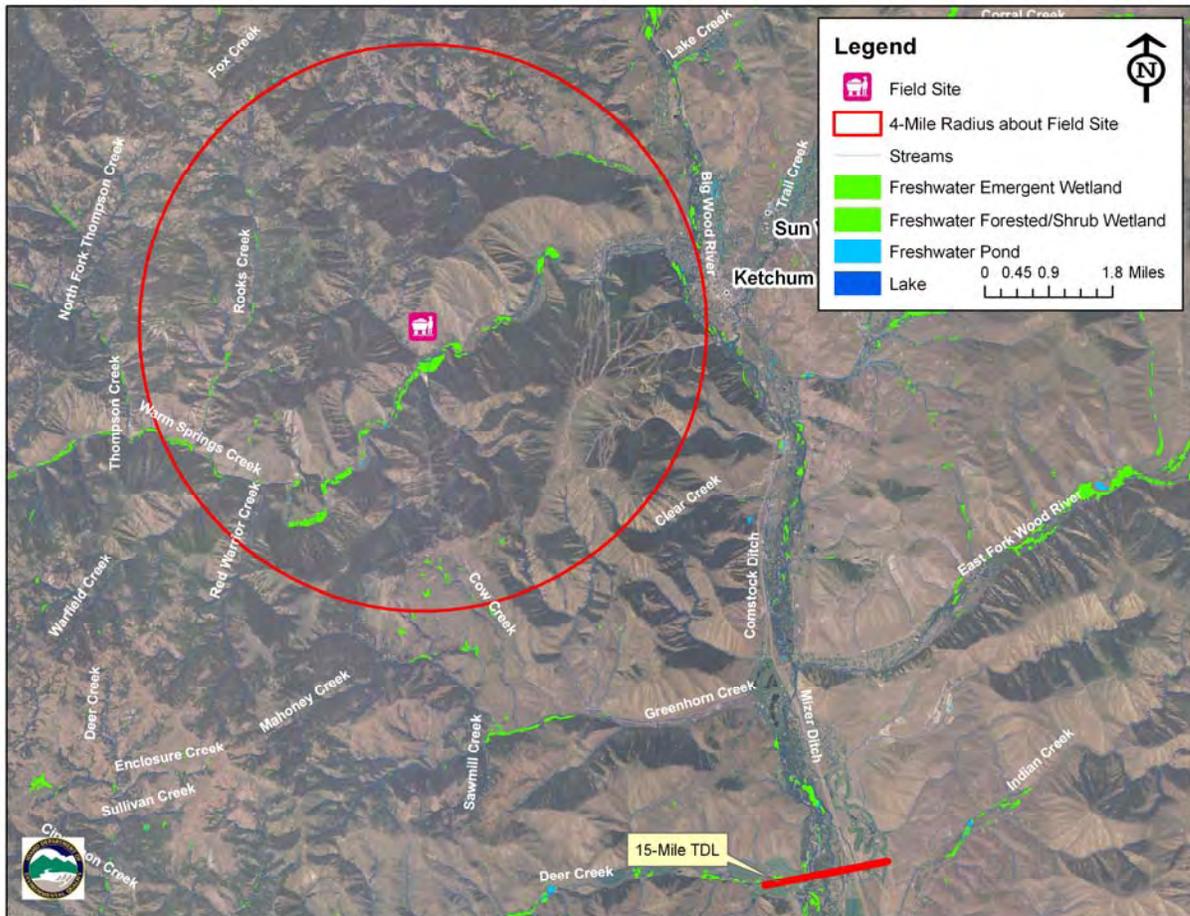


Figure 2: Wetlands & TDL Map

Surface Water Pathway

The Allen workings lie within an unnamed ephemeral drainage on the eastern flank of a ridge spur at approximately 7,000 feet in elevation. The closest perennial stream is Warm Springs Creek, located approximately 0.4 miles away, though no direct pathway connection was noted.

In-water Segment

There are no drinking water intakes within the 15-mile Total Distance Limit (TDL). The following TDL in-water segment was calculated from the lowest elevation workings on the Allen (see Figure 2).

Traversing south down the ephemeral drain, the surface water pathway encounters Warm Springs Creek at 0.4 miles. Here, it flows eastward, enjoined by several unnamed tributaries until merging with the Big Wood River at 3.95 miles. The Big Wood River continues to the south for the remainder of the 15-mile TDL.

Air Pathway

The nearest permanent residence is located approximately 0.4 miles south on Warm Springs Road. The Allen Mine site is visible from the adjacent Warm Springs Road, but is not accessible by vehicular traffic. The Allen's waste dumps are generally consolidated and comprised of mostly sandy carbonates. Though sulfides mineralization is present on the waste dumps and in outcrop, the likelihood of aerial dispersal from source areas appears remote.

Soil Pathway

The Allen, Tom Rogers and Alpine claims are situated on the southwestern flank of a steep ridge. The workings, consisting of minor prospects, shallow tunnels and exploratory cuts, range in elevation between 6,700 and 7,240 feet amsl. Likely receptors are hikers, hunters and wildlife.

Relative to the Idaho *Initial Default Target Levels* (IDTLs), soil exposure at the Allen is expected to be elevated for all receptors, due to the high concentrations measured in the soil samples. 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. These values are designed to aid in the development of clean-up and remediation goals that would allow the closure of a site based on the risks associated with various receptors for specific media to be less than 10^{-6} .

If the IDTL is exceeded for any constituents, two options are available:

1. Adopt the IDTLs as the cleanup levels and develop a *Risk Management Plan* (RMP); or,
2. Perform a more detailed, site-specific evaluation, which includes developing site-specific background concentrations for comparative purposes.

Groundwater

Potential human health risks may be the result of contamination of public and private drinking water supplies. Generally speaking sources of contamination of drinking water systems was thought likely to occur along two types of sources and three pathways. The first pathway is when heavy metals are leached from mine waste piles, enter ephemeral or perennial drains and then contaminate an area's shallow ground water system. The second pathway is when heavy metals leach from the local ore bodies and are transported through the geologic structure to the shallow ground water. Lastly, 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.

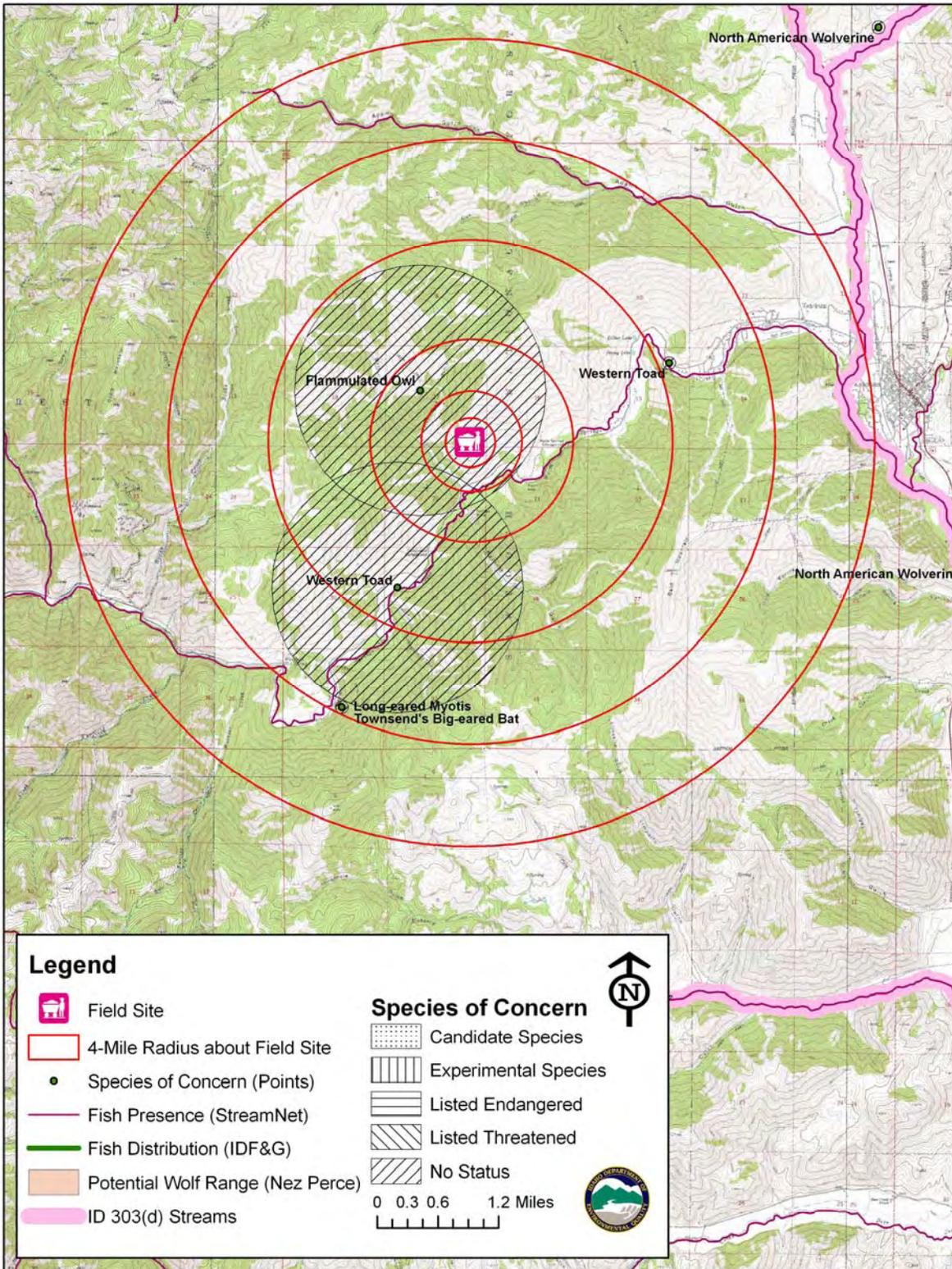
For the purposes of completing Preliminary Assessments, Source Water Assessments (completed for local public drinking water supplies) were used to identify any known affects to those systems. Furthermore, because the wells employed in these systems use the same shallow aquifer, and are located very close to the numerous private wells, the results of the source water assessments have been used to evaluate the probability that contaminants that enter public drinking water supplies also enter private 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.

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 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).

Sensitive Species and Wetlands

The national data base on wetlands inventories indicates that no jurisdictional wetlands exist within 0.5 mile area below the mine site. Although wetland and riparian communities exist adjacent to Warm Springs Creek and the Big Wood River, no wetlands were observed at the site. A stand of aspen trees at the base of the slope immediately below the site does not appear to have suffered any phytotoxic affects, but there are indications of disturbances that may have occurred during residential and agricultural developments along the creek and river. Therefore, there are no indications that adverse affects are the result of developments or drainage from the Allen Mine.

Summary and Conclusions

All metals exceedences indicate that additional site characterization and risk management may be warranted. The mine sites are remotely located high on a hillside beyond where most human receptors would go, and where future development is unlikely, therefore, risks are likely de minimus. However, if development is planned for these properties, additional site characterization and risk management is recommended.

There is one apparent mine opening or physical hazards on this property that may warrant closure to protect occasional visitors. However, if development were to occur on the property, this opening should be closed, and there may be some risk of subsidence beneath structures placed over abandoned workings.

Based on DEQ's analysis, DEQ is recommending that No Remedial Actions are Planned for these properties.

References

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APPENDICES

Abbreviate PA Checklist

BLM Property Data

Copies of Field Notes

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

Regional EPA Reviewer: Bruce A. Schuld _____ Date _____
Print Name/Signature

PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION: ___ No direct discharges of mine adit drainage 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: