Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Bureau of Land Management Property in the Hailey Bellevue Area: Hailey Gold Belt, Blaine County, Idaho

Virginia S. Gillerman

Staff Report 05-4
2005

Idaho Geological Survey
Morrill Hall, Third Floor
University of Idaho
Moscow, Idaho 83844-3014

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Staff Reports present timely information for public distribution. This publication may not conform to the agency's standards.

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Report originally prepared in 1999 for the U.S. Bureau of Land Management
Under Participating Agreement No.1422-D910-A3-0206, Task Order #4

Field Inspection conducted by Virginia S. Gillerman and Mike Dunn

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ILLUSTRATIONS

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GEOLOGY

The Hailey Gold Belt, also known as the Camas District, is located in western Blaine County, in an area of modest relief and sagebrush vegetation south of the higher mountains. The District is underlain by a Cretaceous stock of potassium-rich hornblende-biotite granodiorite (Worl and others, 1991). The Miocene-age Square Mountain ferrolatite overlies the granitic rocks to the south of the District. The granitic stock, as described in the literature and seen on the waste dumps, is a light gray, medium-grained equigranular to slightly porphyritic hornblende-biotite granodiorite to granite with noticeable biotite books and a high K_2O content for given SiO_2 content. Fresh rock seen on the Camas dump is rich in pink potassium feldspar. Observed alteration consists of intense green clay-epidote-sericite alteration of mafics and plagioclase. Minor lamprophyres (mafic dikes) were also noted on the waste dumps.

The mines are located south and east of Richardson Summit near the Croy Creek Road west of Hailey. Mineralization, as described in the literature (Anderson and Wagner, 1946, IBMG Pamphlet 76) and seen on the dumps, consists of thick, mesothermal-looking, coarsely crystalline comb, quartz veins, carrying high values of gold (quarter to half-ounce per ton grade) and silver, along with pyrite and base metal sulfides below the oxidized zone. The veins originally had quartz plus siderite/carbonate gangue, as well as sulfides. Argentiferous galena, sphalerite, and chalcopyrite, plus pyrite are mentioned in the literature. The outcropping vein is still evident at the Tip Top mine; it consists of iron-stained quartz with shearing on the footwall side. The Tip Top vein strikes approximately N70-80W and dips 40-50 degrees northeast. It is some 10-15 feet wide at the surface. Other veins in the District also strike northwesterly and dip moderately to the northeast; many can be traced over a thousand feet along strike and extended to hundreds of feet in depth. Some veins are reported to extend under the Tertiary volcanics to the south, although it appears that little real exploration has been done to examine that area.

The Camas No. 2 mine was the first mine to be discovered in the District in about 1865. The mines were most active in the period from 1880 until the early 1900's. Idaho Bureau of Mines and Geology Map M-1 (Gold Occurrences in Idaho) lists 102,000 troy ounces of gold from the Camas District. However, this is probably low considering that there are few production records for the pre-1900 period when many of the mines were most active. Early ores were processed by stamp mills. Some of the larger mines, including the Camas and the Treasure Vault (Hattie) mine reopened in the 1930's to 1960's for brief periods. A few flotation mills were apparently constructed then. Fire has destroyed virtually all of the wooden buildings in the Hailey Gold Belt, leaving only a few historic stone foundations and later concrete ones. There are several smaller mines in the District which were not examined during this survey.

HAZARD ASSESSMENT

SUMMARY

Overall, the Hailey Gold Belt has relatively few hazards; they are summarized in Table 1. However the area is readily accessed by recreation-seekers from the Ketchum area. In fact, a mountain bike tour and dirt bikers have been seen along the good roads through the District.

Table 1. Summary of sites in the Hailey Gold Belt, Blaine County, Idaho. Site name in **bold** indicates property has one or more significant potential environmental or physical hazards. Under "Environmental Hazards": T = a mill tailings problem, D = dump material in or near waterway, WQ = potentially poor water quality. Under "Physical Hazards" – Features: A = adit, P = prospect pit, S = shaft, St = stope; Condition: O= open, C = Caved. ? = Unknown (condition or number).

BLM Site Number (Corrected GPS Data File)	IGS Property Number	Mine Name	Environment Hazard	Physical Hazard	Comments
ID-0054-00016 (HA1218.cor)	HA-1218	**Camas Mine**	Should monitor pit.	2 Pits 2AC 2 SO	Live sheep was trapped in shaft 4. Should fence pits and fill shafts. Some historic value.
ID-0054-00018 (HA1218t.cor)	HA-1218t	Camas Mine Tailings	Tailings in flood plain; OK, but monitor.		pH's >8. Wetlands cover part of site.
ID-0054-00021 (HA1222a.cor)	HA - 1222a	**Golden Star Mine**	WQ: possible acid water or instrument error?	1SC	Measured stream pH=2.4 above site and pH=4.7 in the marsh below. **RECHECK ASAP**. Historic wall?
ID-0054-00022 (HA1209.cor)	HA-1209	**Treasure Vault Mine**	Looked OK.	1AO 1SO 1AC 8P	Fence/cover open shaft. Close Adit. Historic value?
ID-0054-00023 (HA1217.cor)	HA - 1217	Tip Top Mine		2AC 3SC	Historic mill site.

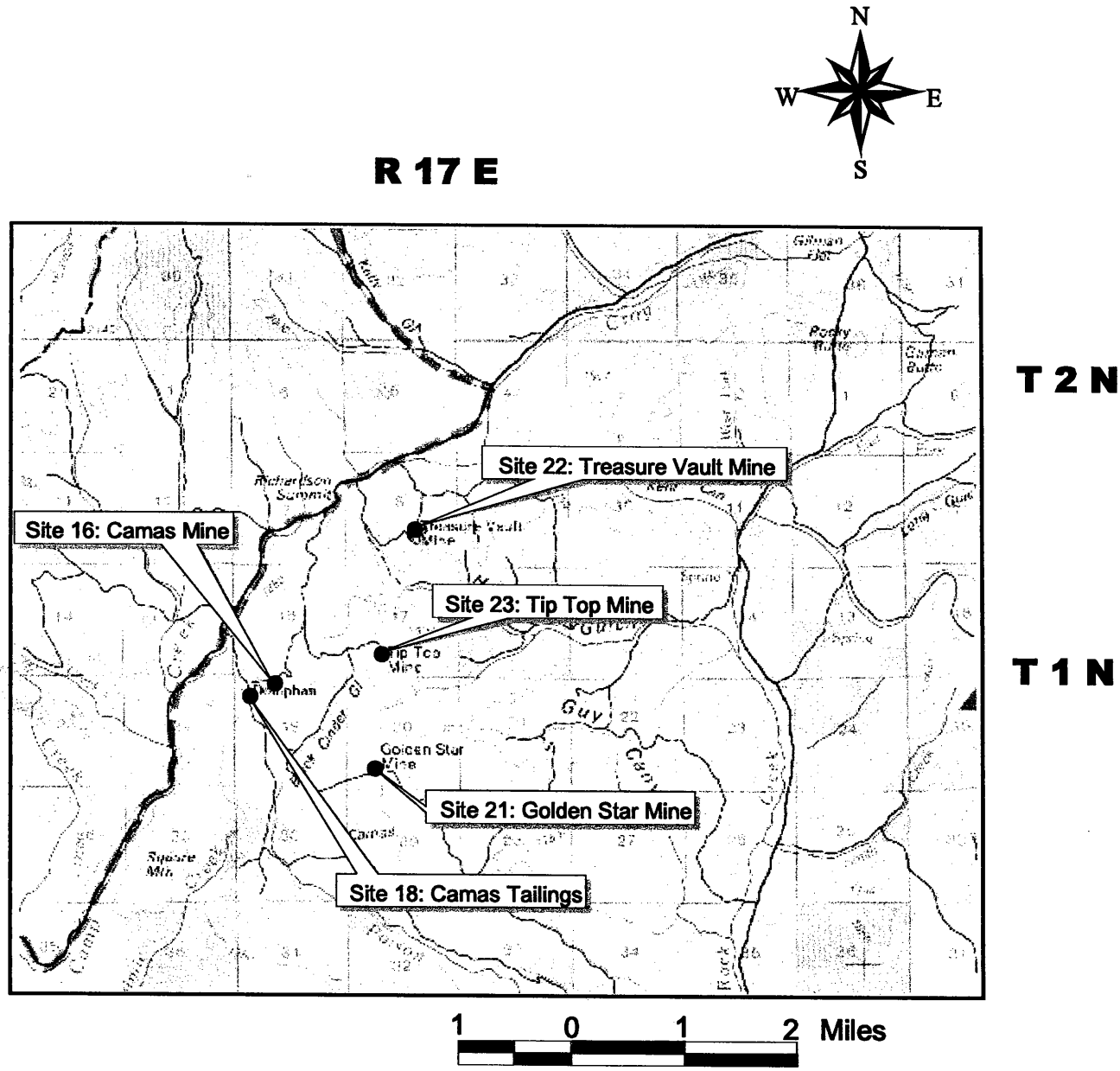

Figure 1. Location map of the Hailey Gold Belt, or Camas District, southwest of Hailey, Blaine County, Idaho (Idaho Transportation Department Fairfield 30x60-minute quadrangle, scale 1:100,000).

The most obvious physical hazards are the open shafts, particularly Shaft 4 at the Camas mine, where the sheep was trapped and rescued, and the decline, Shaft 1, at the Treasure Vault mine. These structures need a locked cover or fence around them. The high wall around the Camas mine pit could also use a fence, though it is fairly obvious as the pit is surrounded by waste dumps and disturbed material.

Four historic mill sites and three tailings impoundments were mapped. The Camas tailings area (Site 18) is noticeable to the casual driver, and is located within an active floodplain. However, water chemistry and appearance of the stream was good, and no action is recommended. Similarly, water quality in the Camas mine open pit lake seemed acceptable at present, but it probably needs some monitoring. More puzzling and disturbing are the two anomalously acid pH measurements from the Golden Star mine (Site 21). The pH 2.4 measurement was located upstream of the mine. The geologist did not notice anything unusual at the time. It is possible that these two measurements are due to instrument error, and a revisit to the site is highly recommended before any conclusions or further recommendations are made.

SITE ID-0054-00016: CAMAS MINE (HA-1218)

The Camas mine is a large property, encompassing numerous features. A well-traveled dirt road extends around the open pit and waste dump complex and directly through the area of the mill site and shaft. Recreational dirt bikers were observed traveling through the mine site. In addition, sheep herders, sheep, and cattle evidently use some of the nearby land. The current claim holder has put up No Trespassing/Danger signs along the road, but it is doubtful they will discourage anyone. However, the more hazardous locations at the Camas are not next to the road. Furthermore, fire has destroyed most of the old structures, thus providing little incentive for the tourist to wander far from the road.

The Camas open pit is probably the most visited feature on the property. The high wall is steep and some 40 feet high, but easily seen. The lake in the pit had a neutral pH of 6.9 and low specific conductivity of 70, so there does not appear to currently be an environmental problem. However, occasional monitoring and water sampling would be a good idea. Likewise, the small tailings pile below the mill site is not a problem; it is above the creek level. There are no dwellings or wells nearby, as the area is remote.

Physical hazards at the main mine area include Shaft 1, the main shaft. It is concrete-lined and filled with water and timbers. Though only about 8 feet down to the water, it would be difficult for a child to climb out. The whole shaft needs a cover or at least a fence around it. Pit 2 nearby could also use a fence. Shaft 4 is the most dangerous feature on the property. It is located on the far northwest end of the line of workings and marked by a modest gray dump on a ridge near the flats. The shaft is open and about 40 feet deep with vertical walls of sanded granite. There is no warning of the sharp drop off and no way out. The danger was illustrated by discovering a live sheep which had fallen into the shaft. The geologists and two local sheep

herders rescued the sheep by pulling him up on a rope. Without our assistance the sheep would have died. The dump on Shaft 4 should be bulldozed back into the shaft for a permanent closure.

SITE ID-0054-00018: CAMAS MINE TAILINGS (HA-1218t)

The main Camas mine tailings impoundment is located along a creek about a quarter mile downstream of the mine and mill site. The sizeable impoundment is approximately 200 feet wide and 2000 feet long, with about a third of that area estimated to be tailings 1-2 feet thick. Four earthen dams have been constructed, with the furthest downstream dam being a major dirt roadway. There is a pond behind Dam 1, but the creek has breached the next three dams and flows freely through the tailings which have been redistributed somewhat during flood events. The tails are orange-colored and mix with black organics and normal granitic sand. Healthy marsh vegetation and animal evidence is abundant. Four measurements on the stream water and pond showed a consistent pH of 8.2 and specific conductivity of 140 µS. Thus, the tailings area does not appear to present an environmental hazard. No action is needed at present.

SITE ID-0054-00021: GOLDEN STAR MINE (HA-1222)

The Golden Star mine was examined by only one geologist on a day when rain and lightening terminated the field visit early. The property has a closed shaft site and modest dump, with a 3-tiered, historic stone wall from an early mill. The original 20-stamp mill was burned in 1907, and the mine closed shortly thereafter (Anderson and Wagner, 1946). A few pieces of green oxide copper stained rock was seen on the dump, but no unusual visual features were seen during the exam. The vegetation appeared healthy. However, two measurements of water pH and specific conductivity were taken, one upstream of the mine on a small creek and the other downstream in a marshy area. The pH's were 2.4 and 4.7, respectively - both highly anomalous. The conductivities of 120 and 80 µS are normal. It is strongly recommended that the site be revisited and the pH measurements be confirmed before any other action is taken.

SITE ID-0054-00022: TREASURE VAULT (Hattie) MINE (HA-1209)

The old Hattie mine, renamed the Treasure Vault, is one of the larger mines in the district. A road goes to the mine and shaft area. Surface expression of the vein extended for 4,000 feet in an east-west strike. The distance is now marked by a long line of prospects and adits, as well as the inclined Shaft 1. The open shaft has a wooden headframe and rails along a 60 degree decline. Water and timbers fill the shaft to approximately 50 feet below the collar level. The concrete lining, and presumably the headframe, date from 1967 according to an inscription in the cement. A fence around the shaft and a secure metal covering are strongly recommended. The head frame is in good condition and could be left for its historical value, along with the nearby grave marker and the original 3-tiered, stone walls of Mill 1, located a half

mile below the workings. Adit 2 is the only other open working; it is partially caved with a 1-foot high opening which should be grated or closed.

No environmental problems were noted at the Treasure Vault mine or mill site. The old tailings impoundment is filled in and covered with healthy vegetation. The creek had a pH of 8 and a specific conductivity of 150 µS below the mill. The old stone dam has large trees growing on it. Terraces on the ridge above the shaft probably help prevent snow melt from washing out the waste dump next to the shaft.

SITE ID-0054-00023: TIP TOP MINE (HA-1217)

The Tip Top mine, located in 1887, was the second most important in the District. It was worked by two inclined shafts 600 feet apart on either side of a ridge. The original, prominent quartz vein outcrop still sits on the tip top of the ridge. The westernmost, Shaft 1, is caved and marked only by a shallow depression and moderate-sized dump which contains pyrite. The lower adit is caved. The site of Shaft 2 on the east side of the ridge is easily noted below the outcrop and the steep slope. The shaft itself has caved in and is filled with vegetation. It did not appear particularly dangerous. A very large dump (Dump 2) extends across the side slope around the shaft. Other small workings were all caved.

A short distance below Dump 2 is the original 10-stamp mill (Anderson and Wagner, 1946) foundation marked by three intact stone walls, handmade from granite blocks. A small berm of remnant tailings/soil remained below the mill, which is above a dry gulch. Artifacts of bricks, glass, etc. from an old assay office and town site on the other side of the gulch were noted. The site has historical value. No environmental or significant physical hazards were seen at the Tip Top mine. The literature and a local claimant noted that a second mill was built by "water on a valley flat 2 miles to the east." That site was not examined nor searched for, and it is recommended that this second mill site be inventoried if it can be found.

REFERENCES

Anderson, A.L., and W.R. Wagner, 1946, A geological reconnaissance of the Hailey Gold Belt (Camas District), Blaine County, Idaho: Idaho Bureau of Mines and Geology Pamphlet No. 76, 26 p.

Baldwin, Dennis, 1998, personal communication.

Gaston, M.P., and B. Bonnichsen, compilers, 1978, Gold occurrences in Idaho: Idaho Bureau of Mines and Geology Map M-1, Scale 1:1,000,000.

Lewis, R.S., T.H. Kiilsgaard, E.H. Bennett, and W.E. Hall, 1987, Lithologic and chemical characteristics of the central and southeastern part of the southern lobe of the Idaho Batholith, *in* Vallier, T.L., and H.C. Brooks, 1987, eds., Geology of the Blue Mountains Region of Oregon, Idaho, and Washington: U.S. Geological Survey Professional Paper 1436, p. 171-196.

Lindgren, Waldemar, 1900, The gold and silver veins of Silver City, De Lamar and other mining districts in Idaho: Twentieth Annual Report of the United States Geological Survey to the Secretary of the Interior, 1898-99, Part III.

U.S. Bureau of Land Management, Shoshone District, and Blaine County Centennial Commission, 1991?, Historic mines of Blaine County, Idaho: A Self-Guided Tour: BLM-ID-GI-91-013-4331, 24p.

Worl, R.G., and K.M. Johnson, 1995, Geology and mineral deposits of the Hailey 1°x2° quadrangle and the western part of the Idaho Falls 1°x2° quadrangle, south-central Idaho— an overview: Part A *in* Ronald G. Worl, P.K. Link, G.R. Winkler, and K.M. Johnson, editors, Geology and Mineral Resources of the Hailey 1°x2° Quadrangle and the Western Part of the Idaho Falls 1°x2° Quadrangle, Idaho: U.S. Geological Survey Bulletin 2064-A, 21p.

Worl, R.G. T.H. Kiilsgaard, E.H. Bennett, P.K. Link, R.S. Lewis, V.E. Mitchell, K.M. Johnson, and L.D. Snyder, 1991, Geologic map of the Hailey 1°x2° Quadrangle, Idaho: U.S. Geological Survey Open-File Report 91-340.

SITE INSPECTION REPORTS FOR MINES IN THE HAILEY GOLD BELT

BUREAU OF LAND MANAGEMENT

ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST
6-6-98

Note - problem with GPS unit battery.

A. SITE IDENTIFICATION
ID Number: I D - 0 0 5 4 - 0 0 0 1 6
Site/Mine Name: **Camas Mine** Primary Commodity: **Au-Lode 261**
IGS Number: **HA-1218**

B. LOCATION DATA
USGS Quad: **Richardson Summit** LAT: _____ LONG: _____ **OR**
UTM Coord: **4809353** N **704398** E Zone **11** **AND**
Township: **1N** Range: **17E** Section: **19** **18** Subdivision: **NENW** **SW1/4**
Meridian: **08** County: **013**
Surface: BLM **X** / Non-BLM **X** Mineral Estate: BLM **X** / Non-BLM **X**

C. ACCESS
Visible from: Nearest road **2** / Trail **3** / Population center **0**
Access by: 2wd **x** / 4wd ___ / Hike ___ / Other ___
Access disturbance in need of reclamation: Length ___ / Width ___ / Acres ___
Road Log: **Several ways to access property from public roads.**

Recent human use: **X** Describe: **Mtn. Bike tracks, dirt bikes seen in use; also sheep and sheepherders nearby.**

D. SITE DESCRIPTION
Acreage: ___ Elevation: ___
General slope (degrees): 0-10 **X** / 11-35 ___ / >35 ___
Floodplain: Disturbance in ___ / Adjacent to **x** / NA ___
Recent mineral activity **X** Describe: **Worked in 1989 according to claimholder Dennis Baldwin. Ore was taken to Princess Blue Ribbon mill.**

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits **0** / Closed adits **2** / Open inclines ___ / Closed inclines ___
Open shafts **2** / Closed shafts **2** / Stopes **0**
Other openings **0** Type ___
Trenches **1** Length **60'** / Prospects **1+** / Open drill holes ___

Pits >30 ft. deep **1 big** / Pits <30 ft. deep **1+** / Pit highwall length **~200'+**
Waste dumps: <0.1 ac **5** / 0.1 - 5 ac **0** / >5 ac **1**
Tailings: <0.1 ac **1** / 0.1 - 5 ac **prob. 1** / >5 ac ___ **See checklist ID0054-00018**

Heaps ___ / Dredge ___

Ponds ___ / Dams ___
Mills **1** Type **Stamp mill**, ___, ___ **Amalgamation**

Explosives **No** Describe: ___
Equipment/Machinery **X** / Headframes ___ / Trestles/tramways ___
Powerlines ___
Structures **4** Type **Concrete foundations (2), remnant timber , stonewall, 1 wood shed**
Condition: Good ___ / Fair **1** / Poor **3** / Number Locked **O**
Homesites **0**
Other: **Old town site of Doniphan was located on flats nearby. It burned in 1900. Nothing left.**

F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation : Healthy X / Stressed X / Dead ____ / Nonexistent ____
Evidence of natural revegetation: X / Describe: **Old dumps and mill area have tall sagebrush and bushes. Stressed vegetation on some recently active dumps.**

ANIMALS
Evidence: X / Presence: X / Describe: **Bluebird nesting in pit; deer tracks on site. Live sheep on property and in region. Cow and sheep droppings by creek.**

GEOLOGY
Staining of soils X Describe: **Orangy brown FeOx in/ highly mineralized rock on dump**
Sulfide minerals X Type(s): **Pyrite in quartz on dump, but most is oxidized,**
Tailings: Confined ____ / Unconfined X / Unknown ____

HYDROLOGY

		pH	Conductivity	Flow (GPM)	Sketch #
Water flowing from workings :					
Standing water in workings:					
Water through/over tailings:					
waste rock:	X	6.9	070	~150'x70'	in Pit Lake
ore:	X				

Pit lake, fairly clean, green blue color, 5'-10' deep.

Adjacent water sources :	Type	pH	Conductivity	Flow (GPM)	Distance
Ground water:					
Surface water:	Spring 1	7.4	080	3gpm	10' willows, abundant sedges.
Surface H2O above site:					
Surface H2O below site:	Creek 1	7.2	130	10	200' below tails

By Bldg 2

Heavy cow/sheep use

Evidence of aquatic life: X Location: **Pit Lake** Describe: **algae, sedge, water strider, water beetles.**

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange ___
Brown ___ / Green ___ / Grey-Black X / Other ____

Samples collected: 1 Sketch #(s): **6-6-98A collected from upper tailings pile.**

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills ____ / Acid or Chemical odor ____ / Asbestos ____
Petrochemical Products ____ / Dump sites ____
Power Substations ____ / Transformers ____

Barrels, Tanks, Containers ____ Leaking: ____ Contents: ____
Evidence of Underground Storage Tanks: ____ Describe: ____

Other: **Campers left two gallon plastic gas containers - filled with water or gas behind building 2.**

H. RECLAMATION

SITE CONDITIONS

Tailing dams breached by creek.

Erosion : Rills **Y(on roads)** / Gullies **X** / Sheetwash ____
Unstable Rock ____ / Slope instability ____ / Wind erosion ____

MITIGATION STATUS
None **X** / Fencing ____ / Signs **1** / Safety hazards mitigated ____
Other: ____

Mitigation condition: Good ____ / Fair ____ / Poor ____
Site ID tags : ____ / Locations: ____

OPTIONAL: Identify the critical reclamation measures needed :

____ Cable nets, grates
____ Permanent seal
____ Gates
X Backfill openings, pit
X Recontour
X Fences
X Warning signs
____ Plug open drill holes
____ Topsoil, soil amendments
X Revegetation
____ Stabilize/destroy structures
____ Drainage control
____ Water treatment
____ Wildlife closure
____ No action
____ Trash / clean up
____ Other: ____

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA **yes** Rover File name: **HA-1218**

K. PHOTOGRAPHS
Number of photographs taken: **19 photos. Roll 98-2 (neg. 8593), frames #3a thru 21a**

L. ACTION
Site requires immediate investigation ____ by: Law Enforcement ____ / BLM ____
HAZMAT ____ / Other ____

Reason: ____

(03/95)

M. FEATURES - PROVIDE DIMENSIONS IN FEET.

Feature	Length	Width	Height or Depth	Mitigation
Camas Open Pit 1 perimeter 1	**~300'**	**100'**	**40' to water**	**Perimeter fence needed. Lake in pit.**
Dump 1 perimeter 2	**Big**			**For open pit 1. Note GPS crashed during traverse.**
Pit 2 (point 1)		**25' dia.**	**35' ?**	**Fence needed. Pit has coned and contains water. Shaft site?**
Shaft 1	**15**	**10**	**Open?**	**Dangerous! Concrete-lined and filled with water. Looks open. Should fence or fill.**
Mill site 1	**50**	**20**	**2**	**Foundation walls are left.**
Bldg 1 foundation	**30'**	**20'**		**Concrete foundation only.**
Bldg 2	**5'**	**5'**	**wood, partly collapsed**	**Could be adit? Spring flowing.**
Point 14				**GPS mistake. Ignore.**
Shaft 2	**20'**	**20'**	**10' to water**	**Needs fence, by road.**
GPS = no reading 1:15pm no satelite				**lunch break**
Perimeter-Tails 1			**5'**	**Upper Tailings Pile. Sample 6-6-98A.**
Prospect trench	**60'**	**5'-20'**	**5'**	**N20E trend**
Adit 1/Dump	**10'**	**10'**	**2'**	**Adit caved; dimensions are for dump.**
Adit 2				**Dry and caved with timbers, just above creek.**
Point 3	**30'**		**15'**	**Stone wall of latite, handmade and historic.**
Shaft 3	**20' dia.**		**15'**	**Caved**
Dump 3	**80'**	**40'**	**20'**	**For shaft 3.**

Feature	Length	Width	Height or Depth	Mitigation
Shaft 4	**30' dia**		**40'**	**OPEN shaft with vertical walls of sanded granite. Live sheep trapped in shaft. Should fence or fill.**
Dump 4	**40'**	**20'**	**15'**	**For Shaft 4. Gray dump on ridge west of creek.**

Field Notes:

See next pages for field notes and sketch map.

INSPECTED BY: **Mike Dunn** TITLE: **IGS Geologist** DATE: **6-6-98**
INSPECTED BY: **Virginia Gillerman** TITLE: **IGS Geologist** DATE: **6-6-98**

Field Notes for Camas Mine (HA-1218):

The Camas Mine was one of the larger mines in the Hailey Gold Belt. It includes both underground workings and a fairly large open pit. The pit has a lake with fairly clean azure blue water with a pH measured at 6.9 and a low specific conductivity of 70. The high wall on the pit is very steep and approximately 40 feet high. A sizable dump, readily visible from a distance, surrounds the pit. According to Dennis Baldwin, a claimholder in the area, the large dump 1 is from the old underground workings and the open pit, which was active in 1989. At that time the ore was hauled to the mill at the Princess Blue Ribbon mine. The Camas mill site area now has only low-walled concrete foundations with miscellaneous timber, rusty rails and scarp metal. It may have been a stamp mill originally. There are two distinct areas of tailings. The apparently older and much smaller pile is labelled the upper pile; it is just below the mill but above the creek level. The tailings there appeared coarser than at the lower pile which occupies a large area along the creek and ponds a quarter mile downstream from the site. The lower pile was inventoried as site ID-0054-00018.

The underground workings are located north of the pit and dump area and appeared to follow the northwest trend of the gold-bearing vein. Shaft 1 is near the mill and below the north side of the open pit area. A 2WD dirt road goes through the open pit and mill site area. Mountain and dirt bike recreationalists were seen using the road. Shaft 1 is lined with vertical concrete walls and is filled with water. Timbers stick up out of the shaft, which could be open below the water. Luckily, the Shaft 1 and Pit 2, a conical depression nearby, are out of the main traffic area and would be visible to most hikers. Still, they are dangerous to the curious visitor and a sign or fence would be advisable. There is also a minor amount of trash scattered at the site.

Building 2 is a partly collapsed wood structure in a marshy area. It was unclear whether the water discharge, which forms the creek, is a natural spring or an adit discharge. The thick and healthy willows and sedges prevented seeing any clear view of the discharge point. It likely is at least partly a natural spring. The pH was measured at 7.4 and the specific conductivity at 80 with an estimated flow of 3 gpm. Shaft 2 is a coned pit, some 20' in diameter and 10' or more in depth with water in the bottom. It is located on the north side of the main road through the site. The pit should be dozed in.

A line of pits, trenches, old caved adits and one caved shaft extend across the road from the mill and Shaft 1 site to the northwest up and over a low ridge. At one site, labelled Point 3, is an old stone wall, probably handmade from boulders of latite, which outcrops over a mile away. This is one of the few remaining historic structures in the district. It probably dates from the turn of the century and should be left as is.

The most northwesterly mapped working was Shaft 4, marked by a gray dump on a lonely ridgetop above the flats. It is approximately a third of a mile northwest of the pit area. The shaft is open and some 40 feet deep with vertical walls of sanded granite. There is no warning as to the sharp dropoff. The danger was illustrated by finding a sheep which had fallen into the shaft. The sheep was alive and apparently unharmed by the fall, but trapped. The geologists went to a nearby sheep herder's camp and assisted the herders in pulling the sheep out with a rope. If not for the fortuitous visit by the Idaho Geological Survey geologists doing this field inventory, the animal clearly would have starved to death. A similar fate would await any person or animal who fell into the shaft. It is recommended that the shaft be filled by pushing the dump back into the shaft.

Geology: Judging from material on the dump and in the pit, the ore was a strongly mineralized, coarse-grained mesothermal quartz vein with orange-brown iron oxides (FeOx) in pink K-feldspar-rich granodiorite to granite. The rock typically exhibits intense green clay-epidote-sericite alteration of mafics and plagioclase. Numerous quartz stringers are present. The veins probably had siderite/carbonate gangue as well as sulfides originally. Surface rocks are oxidized, but pyrite was noted in the primary ore. The vein strikes N50W and dips 55E in the pit.

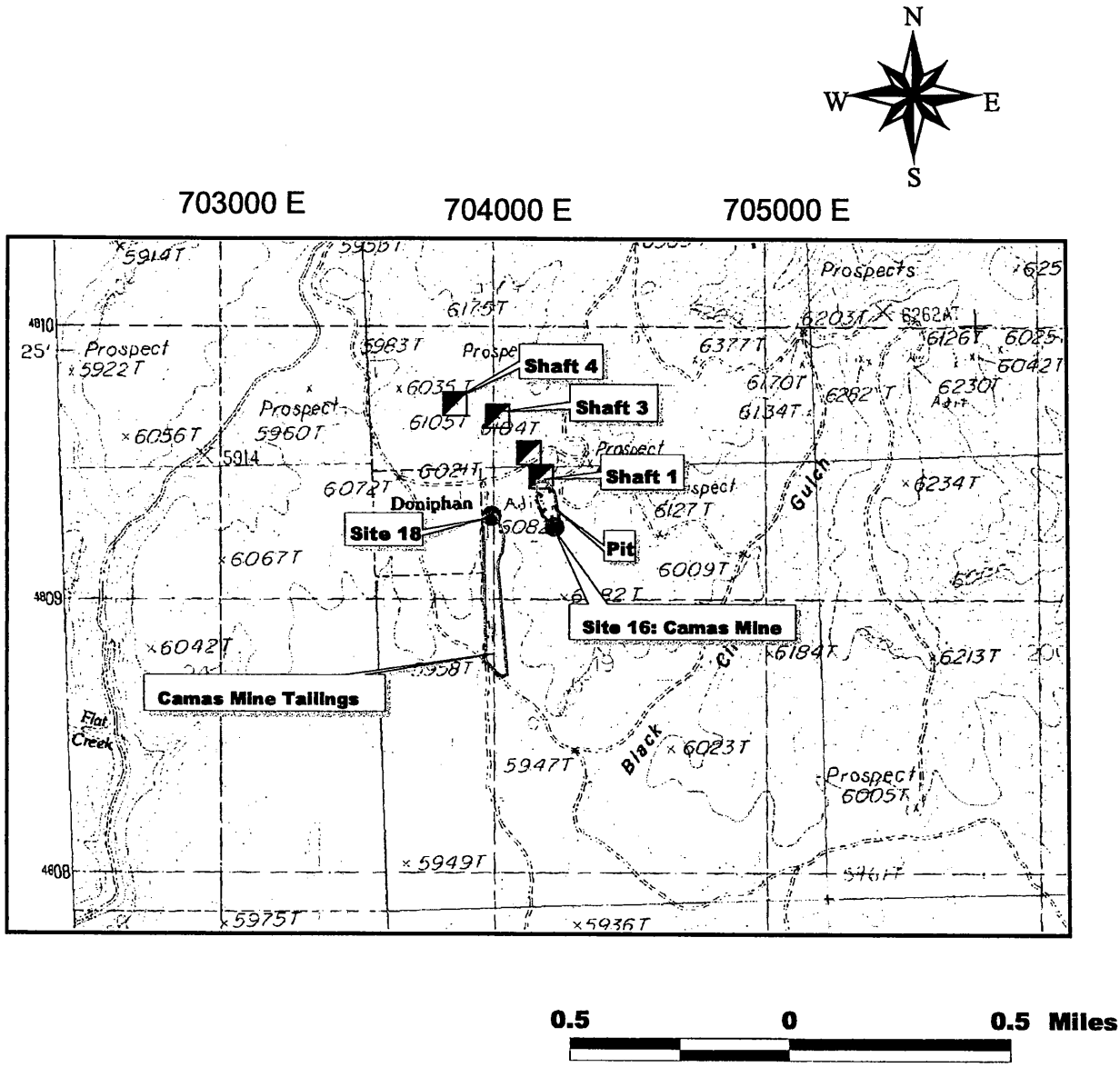

Figure 16-1. Site 16: Topographic map of Camas Mine, Blaine County, Idaho (U.S. Geological Survey, Richardson Summit, 7.5 minute topographic map).

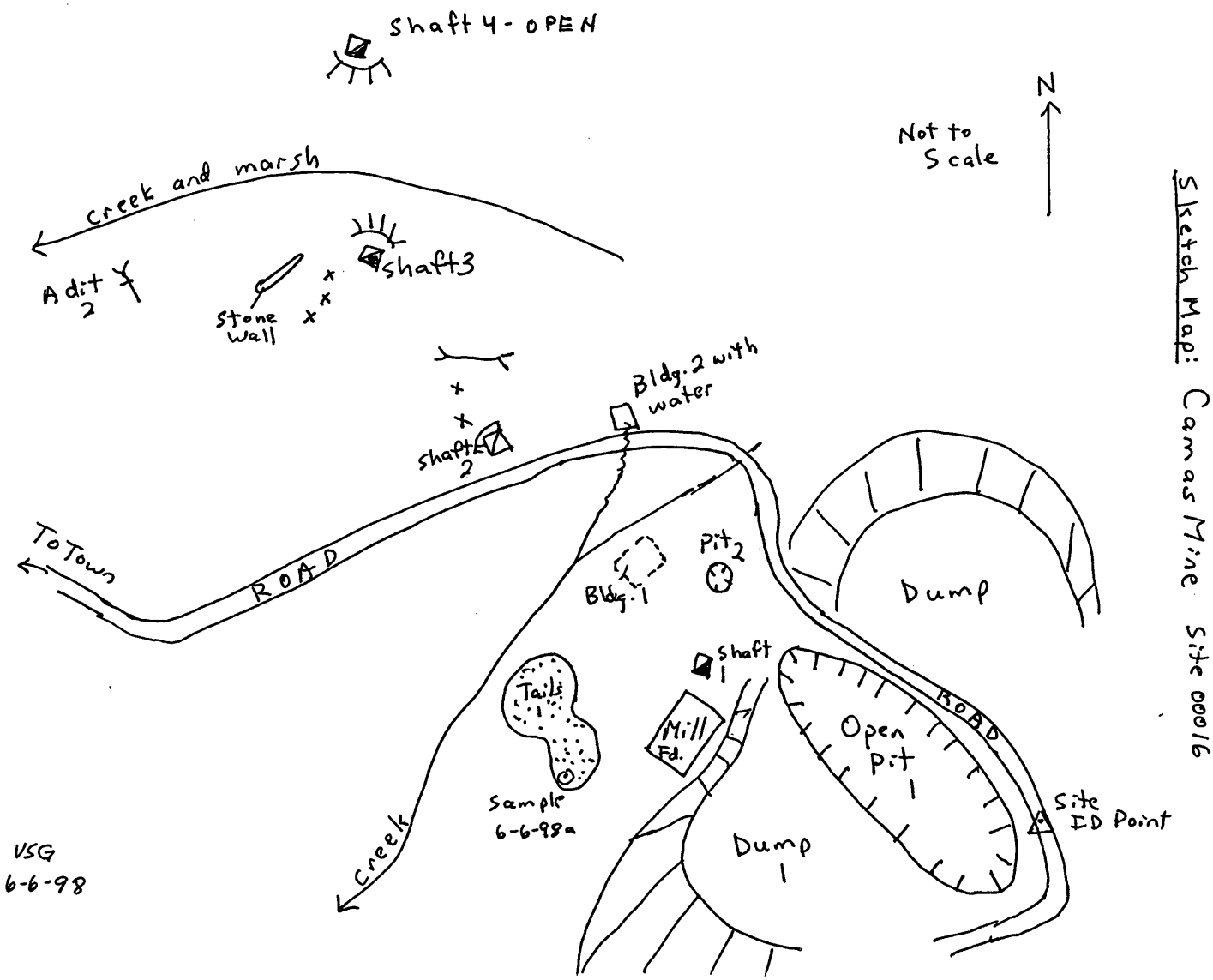

Figure 16-2. Site 16: Sketch map of Camas mine, Blaine County, Idaho, by V. S. Gillerman.

BLM AML INVENTORY FIELD CHECKLIST
PHOTO LOG

ID Number: 00016

Fill out the following for each photo:

Roll Number	Frame Number	Direction	Location/Feature
98-2	3a	130	Camas Pit and Lake
(Neg. 8593)	4a	110	Camas Mine pit. Large vein is exposed in wall of pit. Waste dump is in distance behind truck.
	5a	260	Shaft 1 (concrete-lined with inclined timbers) is in left center of photo. Mill foundation is in back. Point 1 pit is next to geologist.
	6a	350	Shaft 1 with concrete wall and wood frame which has collapsed into middle of shaft.
	7a	260	Shaft 1 with water 5' down. Old timbers in the water. Shaft may be open below. Very dangerous!!
	8a	300	Partially collapsed Building 2 in marsh. It could be an old adit portal with spring water discharge.
	9a	260	Shaft 2 filled with water and timbers,next to road.
	10a	150	Upper tailings pile; it is small eroded pile ~200' below millsite.
	11a	200	Lower tailings pile; it is spread into small piles downstream along the broad valley. See checklist for Site 00018.
	12a	225	Close-up of upper tailings pile with marshy vegetation adjacent to creek.
	13a	Due N	Adit 2, caved with timber. No dump. Cabin site?
	14a	060	Stone wall of latite boulders, historic structure.
	15a	270	Shaft 3, with vegetated dump in back.
	16a	180 and down	Shaft 4 with live sheep trapped in shaft.
	17a	Down	Close up of trapped sheep.
	18a	180	Sheep rescue: sheepherder tying up sheep in shaft.
	19a	180	Sheep rescue: pulling sheep out of shaft.
	20a	180	Sheep rescue: pulling sheepherder out of shaft.
	21a	180	Finale: Sheepherders and rescued sheep in truck.

I. INTERVIEWS

Name **Dennis Baldwin**
Address
Near Picabo
Phone
Affiliation **Western Deep Project**
Comments:
Good Knowledge of local history, goal. Local claim holder and miner, who has project underway. He has several "Hazard" signs posted along road.

Name
Address

Phone
Affiliation

Comments:

Name
Address

Phone
Affiliation

Comments:

Figure 16-3. Site 16: Camas Pit and lake. Picture is looking to southeast (Roll 98-2, neg. #8593, frame #3a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-4. Site 16: Camas Mine pit. Large vein is exposed in wall of pit. Waste dump is in distance behind truck. Picture is looking to east southeast (Roll 98-2, neg.#8593, frame #4a; photograph by V.S. Gillerman; June 6,1998).

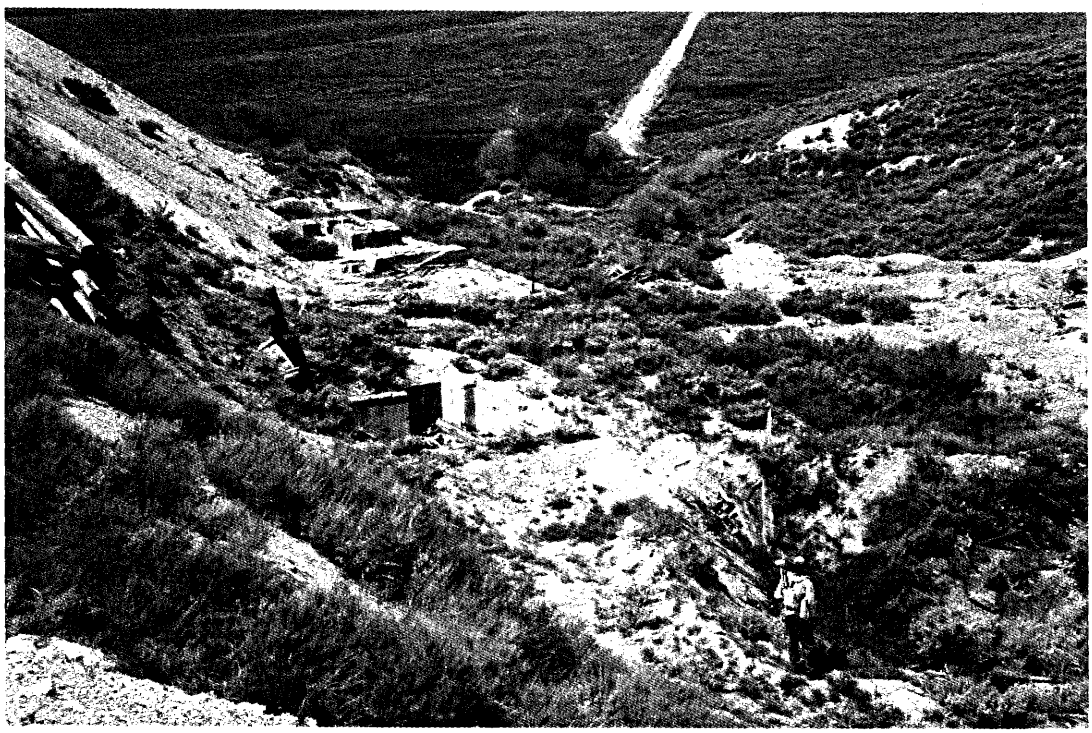

Figure 16-5. Site 16: Shaft 1 (concrete-lined with inclined timbers) is in left center of photo. Mill foundation is in back. Point 1 pit is next to geologist. Picture is looking to west (Roll 98-2, neg. #8593, frame #5a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-6. Site 16: Shaft 1 with concrete wall and wood frame which has collapsed into middle of shaft. Picture is looking to north (Roll 98-2, neg. #8593, frame #6a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-7. Site 16: Shaft 1 with water 5 feet down. Old timbers in the water. Shaft may be open below. Very dangerous!! Picture is looking to west (Roll 98-2, neg. #8593, frame #7a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-8. Site 16: Partially collapsed Building 2 in marsh. It could be an old adit portal with spring water discharge. Picture is looking to northwest (Roll 98-2, neg. #8593, frame #8a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-9. Site 16: Shaft 2 filled with water and timbers, next to road. Picture is looking to west (Roll 98-2, neg. #8593, frame #9a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-10. Site 16: Upper tailings pile; it is small eroded pile ~200 feet below millsite. Picture is looking to southeast (Roll 98-2, neg. #8593, frame #10a; photograph by V.S. Gillerman; June 6,1998).

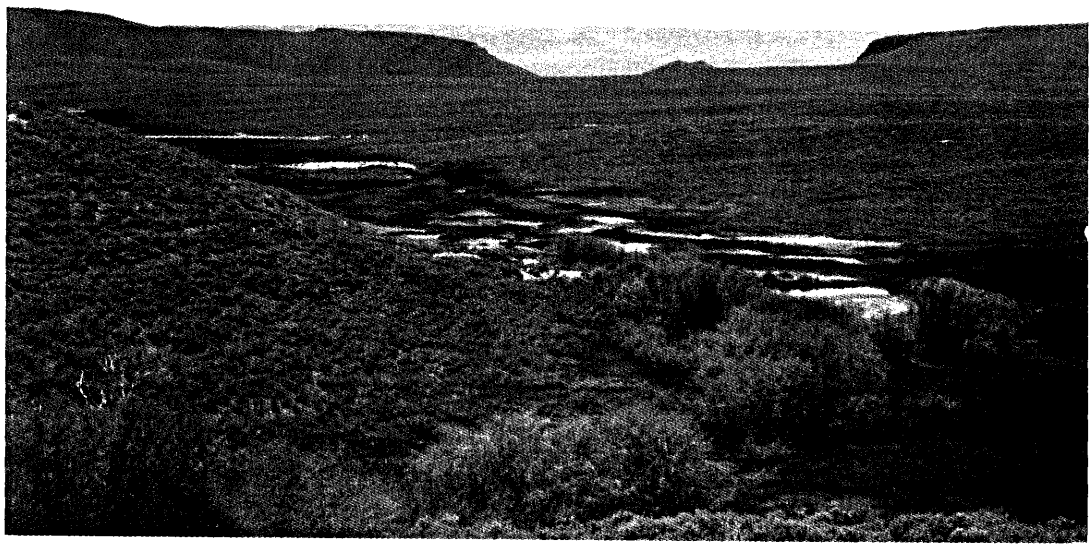

Figure 16-11. Site 16: Lower tailings pile; it is spread into small piles downstream along the broad valley. See checklist for Site 00018. Picture is looking to south southwest (Roll 98-2, neg. #8593, frame #11a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-12. Site 16: Close-up of upper tailings pile with marshy vegetation adjacent to creek. Picture is looking to southwest (Roll 98-2, neg. #8593, frame #12a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-13. Site 16: Adit 2, caved with timber. No dump. Cabin site? Picture is looking to north (Roll 98-2, neg. #8593, frame #13a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-14. Site 16: Stone wall of latite boulders, historic structure. Picture is looking to northeast (Roll 98-2, neg. #8593, frame #14a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-15. Site 16: Shaft 3, with vegetated dump in back. Picture is looking to west (Roll 98-2, neg. #8593, frame #15a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-16. Site 16: Shaft 4 with live sheep trapped in shaft. Picture is looking to south and vertically down (Roll 98-2, neg. #8593, frame #16a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-17. Site 16: Close up of trapped sheep. Picture is looking vertically down (Roll 98-2, neg. #8593, frame #17a; photograph by V.S. Gillerman; June 6,1998).

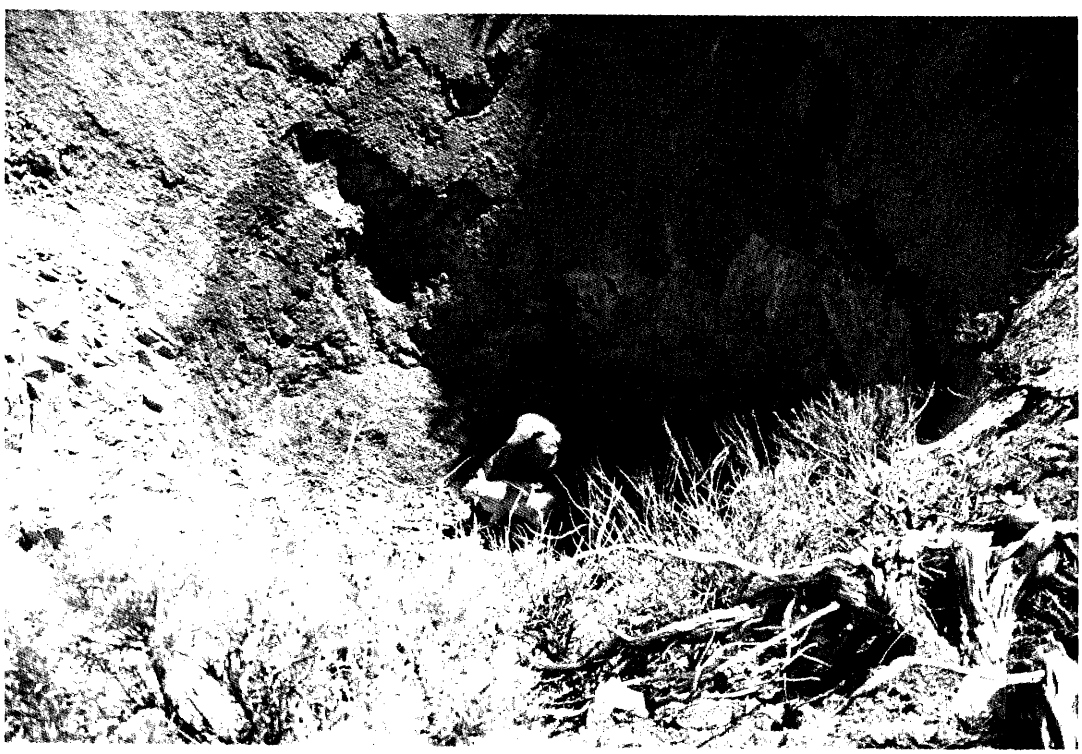

Figure 16-18. Site 16: Sheep rescue: sheepherder tying up sheep in shaft. Picture is looking to south (Roll 98-2, neg. #8593, frame #18a; photograph by V.S. Gillerman; June 6,1998).

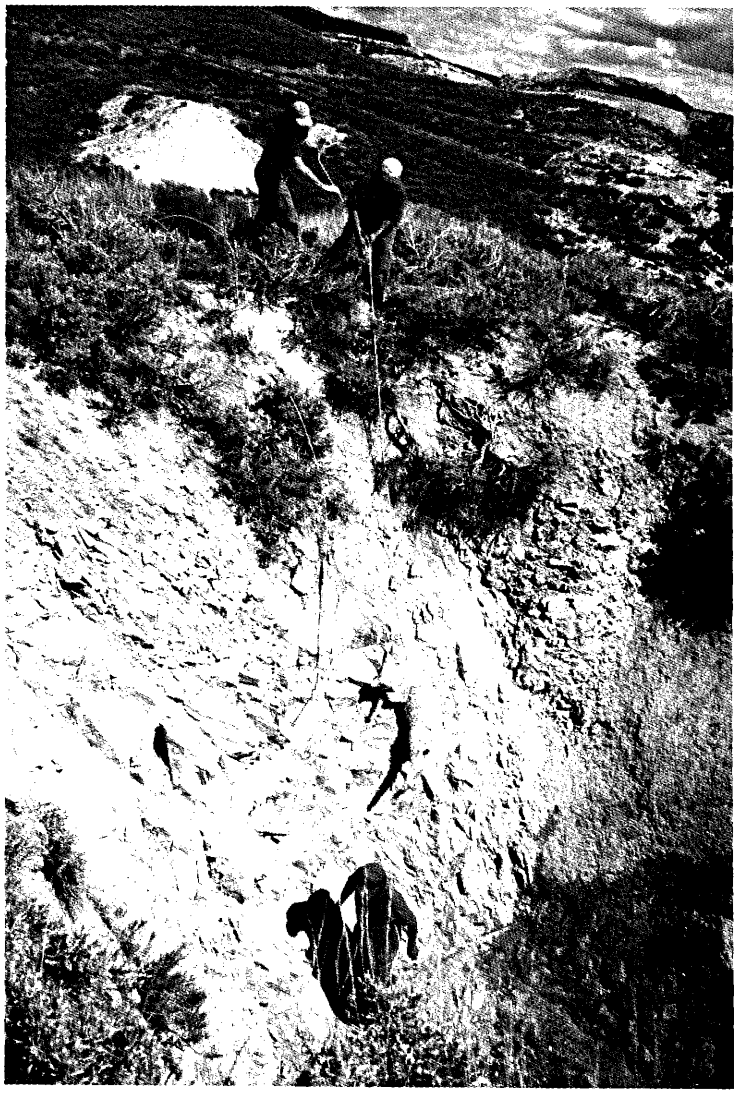

Figure 16-19. Site 16: Sheep rescue: pulling sheep out of shaft. Geologist Mike Dunn is helping with the effort. Picture is looking to south (Roll 98-2, neg. #8593, frame #19a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-20. Site 16: Sheep rescue: pulling sheepherder out of shaft. Picture is looking to south (Roll 98-2, neg. #8593, frame #20a; photograph by V.S. Gillerman; June 6,1998).

Figure 16-21. Site 16: Finale: Sheepherders and rescued sheep in truck. Good day. Picture is looking to south (Roll 98-2, neg. #8593, frame #21a; photograph by V.S. Gillerman; June 6,1998).

BUREAU OF LAND MANAGEMENT
ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST

A. SITE IDENTIFICATION
ID Number: I D - 0 0 5 4 - 0 0 0 1 8
Site/Mine Name: **Camas mine - tailings** Primary Commodity: **Au 261**
IGS Number: **HA-1218t (Lower tailings area)**

B. LOCATION DATA
USGS Quad: **Richardson Summit** LAT: _____ LONG: _____ **OR**
UTM Coord: **4809313** N **703920** E Zone **11**
Township: **1N** Range: **17E** Section: **19** Subdivision: **NW/NW**
Meridian: **08** County: **013**
Surface: BLM **X** / Non-BLM ___ Mineral Estate: BLM ___ / Non-BLM _

C. ACCESS
Visible from: Nearest road **X** / Trail ___ / Population center___
Access by: 2wd **X** / 4wd ___ / Hike ___ / Other ___
Access disturbance in need of reclamation: Length _____ / Width _____ / Acres _____
Road Log: _____

Recent human use: **X** Describe: **Public road adjacent to site; grazing with sheep herders nearby.**

D. SITE DESCRIPTION
Acreage: _____ Elevation: _____
General slope (degrees): 0-10 **X** / 11-35 ___ / >35 ___
Floodplain: Disturbance in **X** / Adjacent to ___ / NA___
Recent mineral activity **no** Describe: _____

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits _____ / Closed adits _____ / Open inclines ____ / Closed inclines ____
Open shafts _____ / Closed shafts ____ / Stopes ___
Other openings ____ Type _____
Trenches ____ Length _____ / Prospects **1** / Open drill holes ____

Pits >30 ft. deep _ / Pits <30 ft. deep _____ / Pit highwall length_____
Waste dumps:<0.1 ac _____ / 0.1 - 5 ac _____ / >5 ac ____
Tailings: <0.1 ac _____ / 0.1 - 5 ac _____ / >5 ac **1 (of which 1/3 is tailings?)**
Heaps _____ / Dredge _____

Ponds **1** / Dams **4**
Mills _____ Type _____, _____, **See Site 00016, Camas Mine**

Explosives _____ Describe: _____
Equipment/Machinery __ / Headframes ___ / Trestles/tramways
Powerlines _____
Structures **1** Type **collapsed house**
Condition: Good _____ / Fair _____ / Poor **X** / Number Locked _
Homesites ____
Other:

F. ENVIRONMENTAL FEATURES

VEGETATION

Vegetation : Healthy **X** / Stressed ___ / Dead ____ / Nonexistent ____

Evidence of natural revegetation: **X** / Describe: **Sedges, Camas flowers**

ANIMALS

Evidence: **X** / Presence: **X** / Describe: **Sandhill cranes, shore birds seen; many sheep, cow, and deer droppings seen throughout site.**

GEOLOGY

Staining of soils **X** Describe: **Some orange-colored tails mixed with very black organics and normal sand.**

Sulfide minerals **X** Types(s): **Minor pyritic ore samples mixed in with tails.**

Tailings: Confined **somewhat** / Unconfined **X** / Unknown ___

Scattered throughout area within Perimeter 1.

HYDROLOGY

		pH	Conductivity	Flow (GPM)	Sketch #
Water flowing from workings :					
Standing water in workings:					
Water through/over tailings:	**X**	**8.2**	**140**	**5**	
waste rock:					
ore:					

Adjacent water sources :	Type	pH	Conductivity	Flow (GPM)	Distance
Ground water:					
Surface water: Point A	Pond1	8.2	140	70'x150'	**Lush algae**
B Surface H2O on site:	**stream**	**8.2**	**140**	**5**	**Point on site**
Point C Surface H2O below site:	**stream**	**8.2**	**120**	**5-10**	**0', By Dam 3**

Evidence of aquatic life: **Y** Location: **Pond 1 & whole site** Describe: **Bugs and cranes seen; entire site is a wetland.**

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange **X**
Brown ___ / Green **X** / Grey-Black ___ / Other **Pond**

Samples collected: **1** Sketch #(s): **Sample 6-7-98a: tailings - numerous sites**

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills ____ / Acid or Chemical odor ____ / Asbestos ____
Petrochemical Products ____ / Dump sites ____
Power Substations ____ / Transformers ___

Barrels, Tanks, Containers ____ Leaking: ____ Contents: **NO**

Evidence of Underground Storage Tanks: ____ Describe: ____

Other: ____

H. RECLAMATION

SITE CONDITIONS
Erosion : Rills ____ / Gullies **Tailings dams breached by creek.** / Sheetwash ____
Unstable Rock ____ / Slope instability ____ / Wind erosion ____

MITIGATION STATUS
None **X** / Fencing__ / Signs ____ / Safety hazards mitigated__
Other: ____

Mitigation condition: Good ____ / Fair ____ / Poor ____
Site ID tags : ____ / Locations: ____

OPTIONAL: Identify the critical reclamation measures needed :

____ Cable nets, grates
____ Permanent seal
____ Gates
____ Backfill openings, pit
____ Recontour
____ Fences
____ Warning signs
____ Plug open drill holes
____ Other: ____
____ Topsoil, soil amendments
____ Revegetation
____ Stabilize/destroy structures
____ Drainage control
____ Water treatment
____ Wildlife closure
____ No action
____ Trash / clean up

Pond and creek water look ok. Negative effects of tailings has been counterbalanced by ample amount of organic material. Some natural revegetation is already taking place.

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA **Yes** Rover File name: **HA 1218t**

K. PHOTOGRAPHS
Number of photographs taken: **4 photos; Roll 98-3 (neg. 4042), frames #5-8.**

L. ACTION
Site requires immediate investigation __ by: Law Enforcement ____ / BLM ____
HAZMAT ____ / Other ____

Reason: ____

(03/95)

M. FEATURES - PROVIDE DIMENSIONS IN FEET.

Feature	Length	Width	Height or Depth	Mitigation
Dam 1	**100**			
Dam 2	**150**			**none**
Dam 3	**200'**	**8'**	**6'**	
Dam 4/Road	**200'**	**12'**	**8'**	**Dam 4 is also the public road across the south end of tailings pile.**
Perimeter 1= Camas mine Lower Tailings Pile	**2000'**	**200'**	**0-2' thick tails**	**None needed.**
house				**collapsed**

Field Notes:

See sketch map on following pages.

The Lower Tailings Pile for the Camas mine and mill occupies a broad, flat marshy valley approximately a quarter mile downstream from the mill site. The tailings are spread out throughout the area of Perimeter 1, but there are more concentrated piles of tailings within that area. Only a third to a half of the area is obviously coated with tailings, and the thickest piles of tailings are only 2' thick. The valley is along the flood plain of a creek and it appears that some of the tailings have been transported and redeposited during high water events. A pond with algae-coated dark water is located on the upstream end behind Dam 1. There is a succession of three additional earthen (tailings) dams across the valley downstream. The southernmost also serves as a causeway upon which the public road is built. The creek has eroded through the upper three dams and probably goes through a culvert under the road.

While patches of concentrated orangy tan tailings are barren of vegetation, at least 50% of the area is covered with lush, marshy grasses, as is evident on the photos. The environmental hazard appears to be low, judging from the visible and measured good water quality and the apparent high use by animals of the creek and pond. It might be useful to ask the local ranchers if their animals have had any problems in the region, but that is unlikely. Some capping of the tailings could be useful, but the work might create additional disturbance. The area appears to be restoring itself naturally. No action is recommended.

INSPECTED BY: **M.Dunn** TITLE: _____ DATE: _____

INSPECTED BY: **V. Gillerman** TITLE: **IGS** DATE: **7-7-98**

Site **00018**

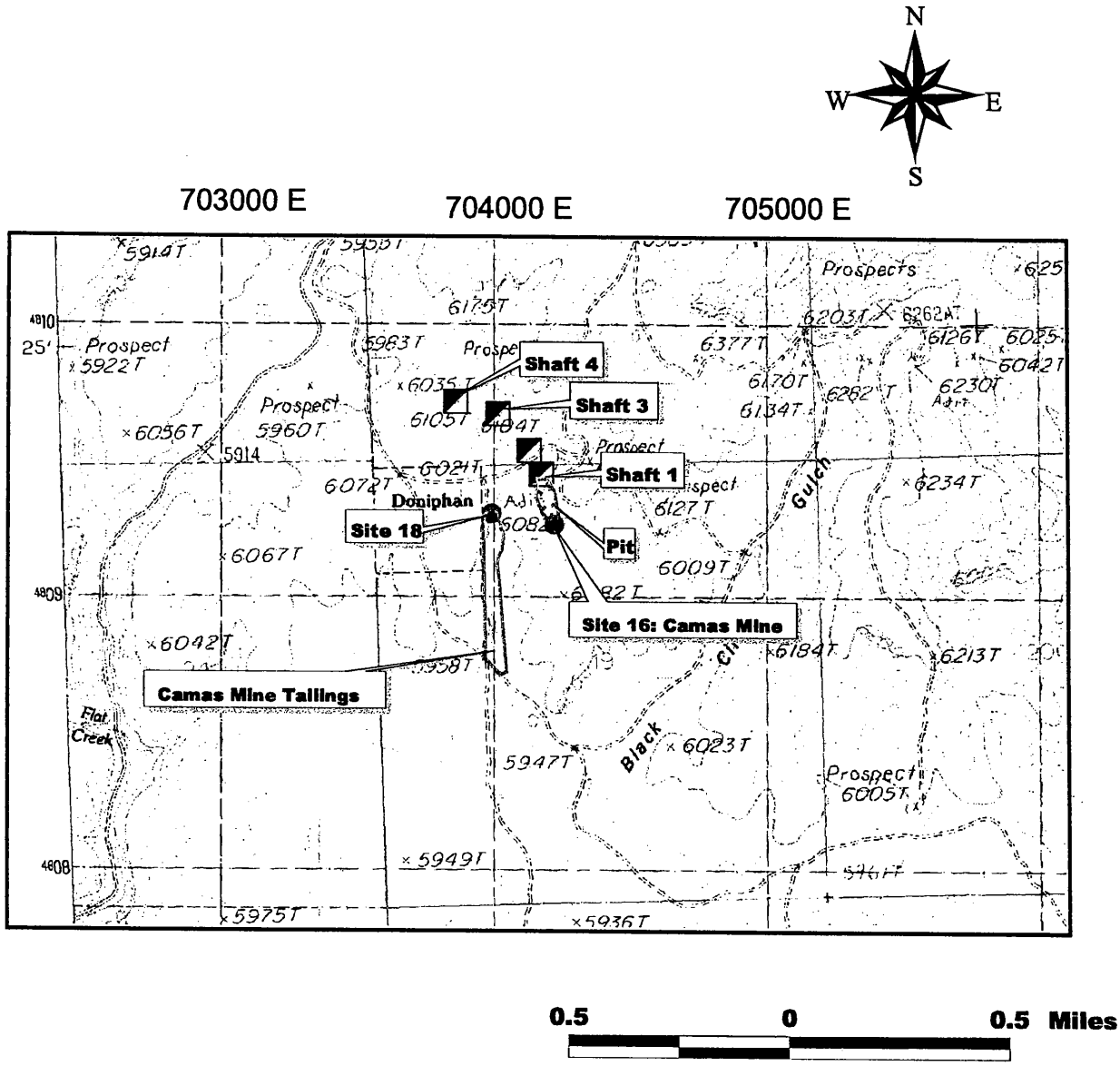

Figure 18-1. Topographic map of the Camas Mine tailings pile, Blaine County, Idaho (U.S. Geological Survey, Richardson Summit, 7.5 minute topographic map).

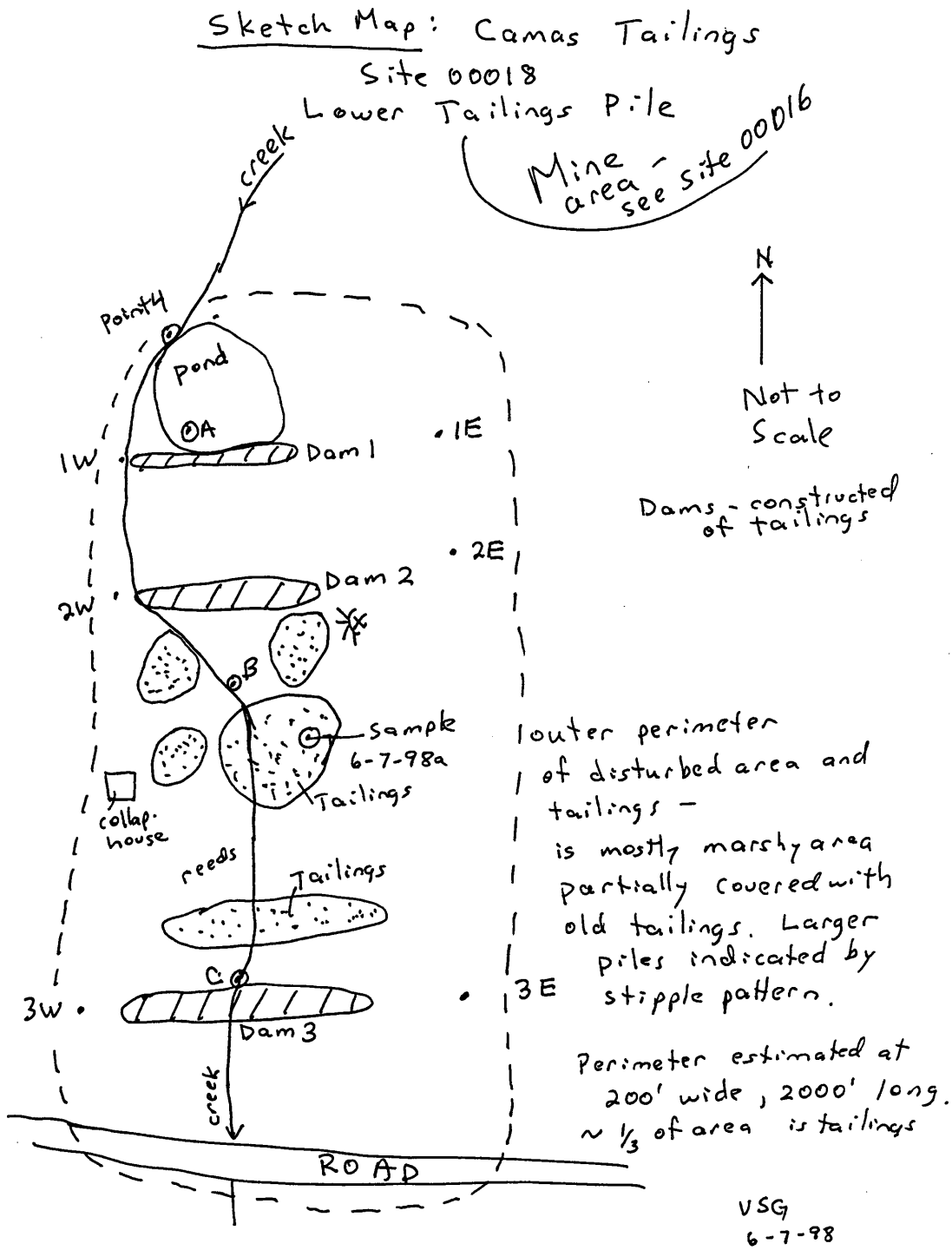

Figure 18-2. Sketch map of the Camas Mine tailings pile, Blaine County, Idaho. By V.S. Gillerman.

BLM AML INVENTORY FIELD CHECKLIST
PHOTO LOG

ID Number: **00018**

Fill out the following for each photo:

Roll Number	Frame Number	Direction	Location/Feature
98-3	5a	90	Dam 1 with pond behind geologist.
(Neg. 4042)	6a	140	Dam 2 and tailings with lush grass in wetland area.
	7a	180	Dam 3 with tailings and good riparian vegetation.
	8a	210	Tailings between Dams 2 and 3 in scattered piles with marshy vegetation.

BLM AML INVENTORY
SUPPLEMENTAL OFFICE DATA SHEET

ID Number: **00018**

A. SITE IDENTIFICATION
Other BLM ID Number : _____
Locatable _____ / Leasable _____ / Salable _____
Operator (last known): _____
Commodities: Primary _____ / Secondary _____
Other Agency ID Number : _____ Agency: _____

B. LOCATION DATA
Site is in _____ or within a mile _____ of:
ACEC _____ / WSA _____ / Wilderness Area _____ / Riparian Area _____
Nominated for Designation to National Wild & Scenic River System _____

C. ACCESS
Distance in Miles to Closest Public :
Road _____ Dwelling _____ School _____
Potable Water _____ Water Source _____ Trail _____
Campground/Picnic Area _____ Other Public Use _____

D. SITE DESCRIPTION
Nearest named drainage: _____ Distance: _____

G. POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action _____
CERCLIS Number _____ OR
Federal Docket Number _____

H. RECLAMATION: Closure Information
Clearances : Threatened & Endangered Species _____
Cultural Resources _____
Historic _____
Other _____

Date reclamation completed: _____
Type of closure: _____ Cost: _____
Comments: _____

Monitoring frequency: _____ Dates of monitoring visits: _____

(NOTE: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)

(03/95)

Figure 18-3. Site 18: Dam 1 with pond behind geologist. Picture is looking to east (Roll 98-3, neg. #4042, frame #5a; photograph by V.S. Gillerman; June 7,1998).

Figure 18-4. Site 18: Dam 2 and tailings with lush grass in wetland area. Picture is looking to southeast (Roll 98-3, neg. #4042, frame #6a; photograph by V.S. Gillerman; June 7,1998).

Figure 18-5. Site 18: Dam 3 with tailings and good riparian vegetation. Picture is looking to south (Roll 98-3, neg. #4042, frame #7a; photograph by V.S. Gillerman; June 7,1998).

Figure 18-6. Site 18: Tailings between Dam 2 and 3 in scattered piles with marshy vegetation. Picture is looking to west (Roll 98-3, neg. #4042, frame #8a; photograph by V.S. Gillerman; June 7,1998).

BUREAU OF LAND MANAGEMENT

ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST

A. SITE IDENTIFICATION
ID Number: I D - 0 0 5 4 - 0 0 0 2 1
Site/Mine Name: **Golden Star** Primary Commodity: **261**
IGS Number: **HA-1222a**

B. LOCATION DATA
USGS Quad: **Richardson Summit** LAT: _____ LONG: _____ **OR**
UTM Coord: **4808155** N **705627** E Zone **11**
Township: **1N** Range: **17E** Section: **20** Subdivision: **NW/SW**
Meridian: **08** County: **013**
Surface: BLM **X** / Non-BLM **X** Mineral Estate: BLM **X** / Non-BLM **X**

C. ACCESS
Visible from: Nearest road **3** / Trail **0** / Population center **0**
Access by: 2wd ____ / 4wd **X** / Hike ____ / Other ____
Access disturbance in need of reclamation: Length _____ / Width _____ / Acres _____
Road Log: _____

Recent human use: **Y** Describe: **Recent claim stakes, grazing activity**

D. SITE DESCRIPTION
Acreage: _____ Elevation: _____
General slope (degrees): 0-10 **X** / 11-35 ___ / >35 ____
Floodplain: Disturbance in ____ / Adjacent to ____ / NA ____
Recent mineral activity **Y** Describe: **Recent claim stakes**

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits _____ / Closed adits _____ / Open inclines _____ / Closed inclines _____
Open shafts _____ / Closed shafts **1** / Stopes _____
Other openings _____ Type _____
Trenches _____ Length _____ / Prospects **5** / Open drill holes _____

Pits >30 ft. deep _____ / Pits <30 ft. deep _____ / Pit highwall length _____
Waste dumps: <0.1 ac _____ / 0.1 - 5 ac **1** / >5 ac _____
Tailings: <0.1 ac _____ / 0.1 - 5 ac _____ / >5 ac ___
Heaps _____ / Dredge _____

Ponds _____ / Dams _____
Mills **1** Type **1** , _____ ,

Explosives _____ Describe: _____
Equipment/Machinery _____ / Headframes ___ / Trestles/tramways _____
Powerlines _____
Structures ____ Type _____
Condition: Good _____ / Fair _____ / Poor _____ / Number Locked _
Homesites _____
Other: _____

F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation : Healthy __X__ / Stressed _____ / Dead _____ / Nonexistent _____
Evidence of natural revegetation: __Y__ / Describe: **Shrub/Steppe, grasses, sedges**

ANIMALS
Evidence: __Y__ / Presence: __Y__ / Describe: **Ground squirrels**

GEOLOGY
Staining of soils __N__ Describe: **some green oxide Cu (?)-bearing rocks at Prospect 3**
Sulfide minerals __N__ Type(s): _____
Tailings: Confined _____ / Unconfined ___ / Unknown __?__

HYDROLOGY

		pH	Conductivity	Flow (GPM)	Sketch #
Water flowing from workings :	___	____	_____	_____	_____
Standing water in workings:	___	____	_____		_____
Water through/over tailings:	___	____	_____	_____	_____
waste rock:	___	____	_____	_____	_____
ore:	___	____	_____	_____	_____

Adjacent water sources :	Type	pH	Conductivity	Flow (GPM)	Distance
Ground water:	_____	____	_____	_____	_____
Surface water:	_____	____	_____	_____	
Surface H2O above site:	**stream**	**2.4**	**120**	**3**	**100**
Surface H2O below site:	**wetland**	**4.7**	**80**	_____	300

(See sketch map for locations of stream sample and marsh/wetland sample.)
Evidence of aquatic life: __Y__ Location: **Below site** Describe: **Marsh birds**

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange ___
Brown __X__ / Green ___ / Grey-Black ___ / Other _____

Samples collected: __1__ Sketch #(s): _____

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills _____ / Acid or Chemical odor _____ / Asbestos _____
Petrochemical Products _____ / Dump sites ____
Power Substations _____ / Transformers ___

Barrels, Tanks, Containers ____ Leaking: _____ Contents:_____

Evidence of Underground Storage Tanks: _____ Describe: _____

Other:_____

H. RECLAMATION

SITE CONDITIONS
Erosion : Rills _____ / Gullies _____ / Sheetwash _____
Unstable Rock _____ / Slope instability _____ / Wind erosion _____

MITIGATION STATUS
None **None** / Fencing **N** / Signs **N** / Safety hazards mitigated **0**
Other: _____

Mitigation condition: Good _____ / Fair _____ / Poor _____
Site ID tags : _____ / Locations: _____

OPTIONAL: Identify the critical reclamation measures needed :

_____ Cable nets, grates
_____ Permanent seal
_____ Gates
_____ Backfill openings, pit
_____ Recontour
_____ Fences
_____ Warning signs
_____ Plug open drill holes
_____ Other: _____

_____ Topsoil, soil amendments
_____ Revegetation
_____ Stabilize/destroy structures
_____ Drainage control
_____ Water treatment
_____ Wildlife closure
_____ No action
_____ Trash / clean up

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA **X** Rover File name: **HA 1222a**

K. PHOTOGRAPHS
Number of photographs taken: **8, Roll 98-5, (neg. #2946), frames 16a-23a**

L. ACTION
Site requires immediate investigation __ by: Law Enforcement _____ / BLM _____
HAZMAT _____ / Other _____

Reason: _____

(03/95)

M. FEATURES - PROVIDE DIMENSIONS IN FEET.

Feature	Length	Width	Height or Depth	Mitigation
Waste Dump #1	**perimeter #1**			
Shaft #1	**30**	**30**	**20**	**Decline caved**
Mill Foundation	**perimeter #2**			**3 tiers, stone block construction, possible historic value**
Prospect #1	**10**	**10**	**5**	
Prospect #2	**20**	**20**	**5**	
Prospect #3	**20**	**15**	**1**	**could be stock tank**
Prospect #4	**10**	**10**	**2**	**possible adjacent to stock tank**
Prospect #5	**25**	**10**	**3**	
Other #1 (stock trough + dry spring)				**Spring is dry. Trough is full of algae**

field Notes:

1) Dump is most visible feature = perimeter #1
2) Shaft / decline caved
3) Stone mill foundation is in ok shape.
4) All wooden structures gone (burned in fire according to literature).

See sketch map on following pages. Rain and lightening drove off the geologist early during the field inventory. No physical hazards noted. No unusual features can be seen in vegetation. However, two low pH measurements were taken. Acid pH measurements are highly unusual. It might be equipment error; the anomaly will be followed up early in the 1999 field season.

INSPECTED BY: Mike Dunn TITLE: Geologist DATE: 6-25-98
INSPECTED BY: _____ TITLE: _____ DATE: _____

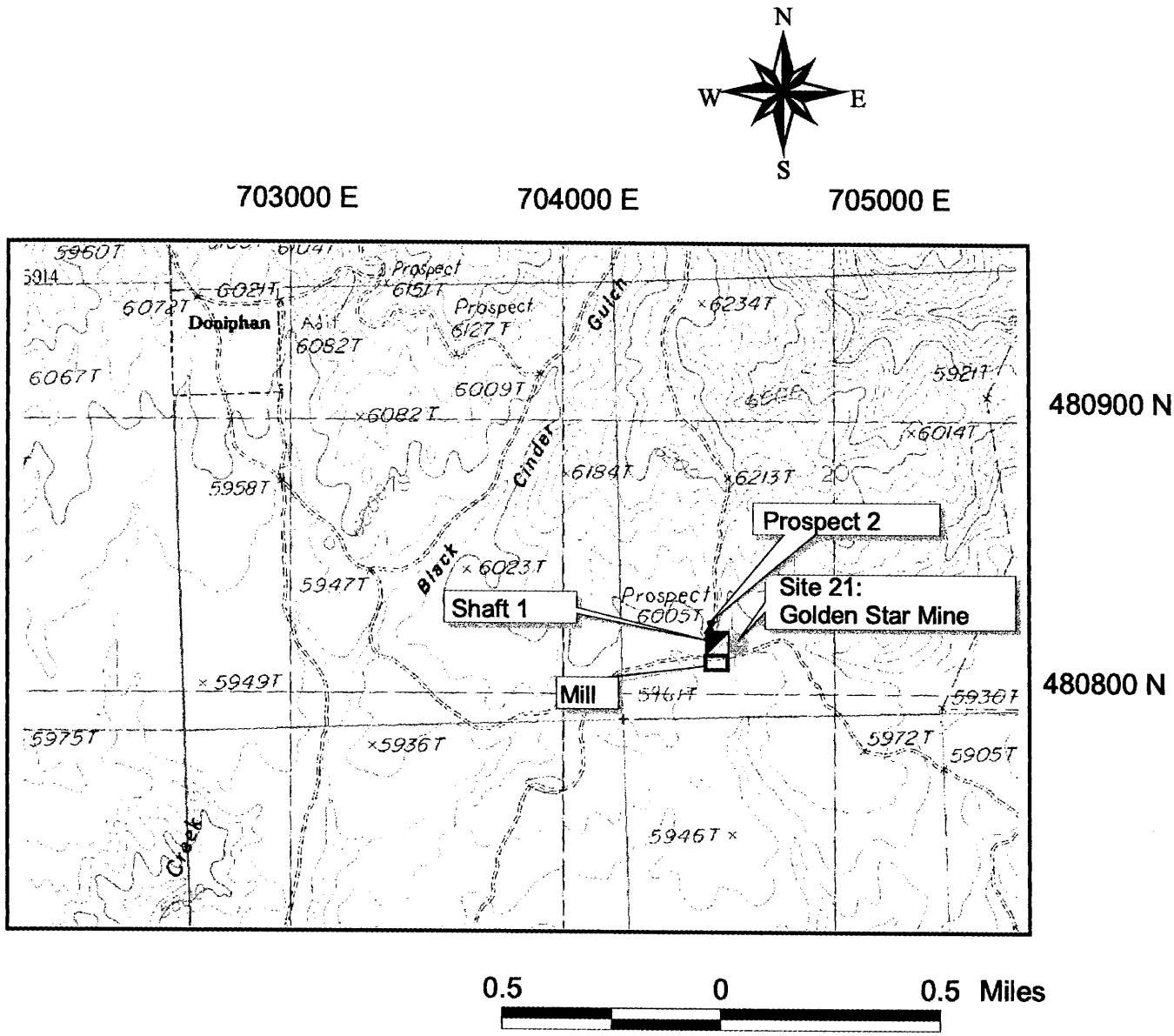

Figure 21-1. Topographic map of the Golden Star mine, Blaine County, Idaho (U.S. Geological Survey, Richardson Summit 7.5 minute topographic map).

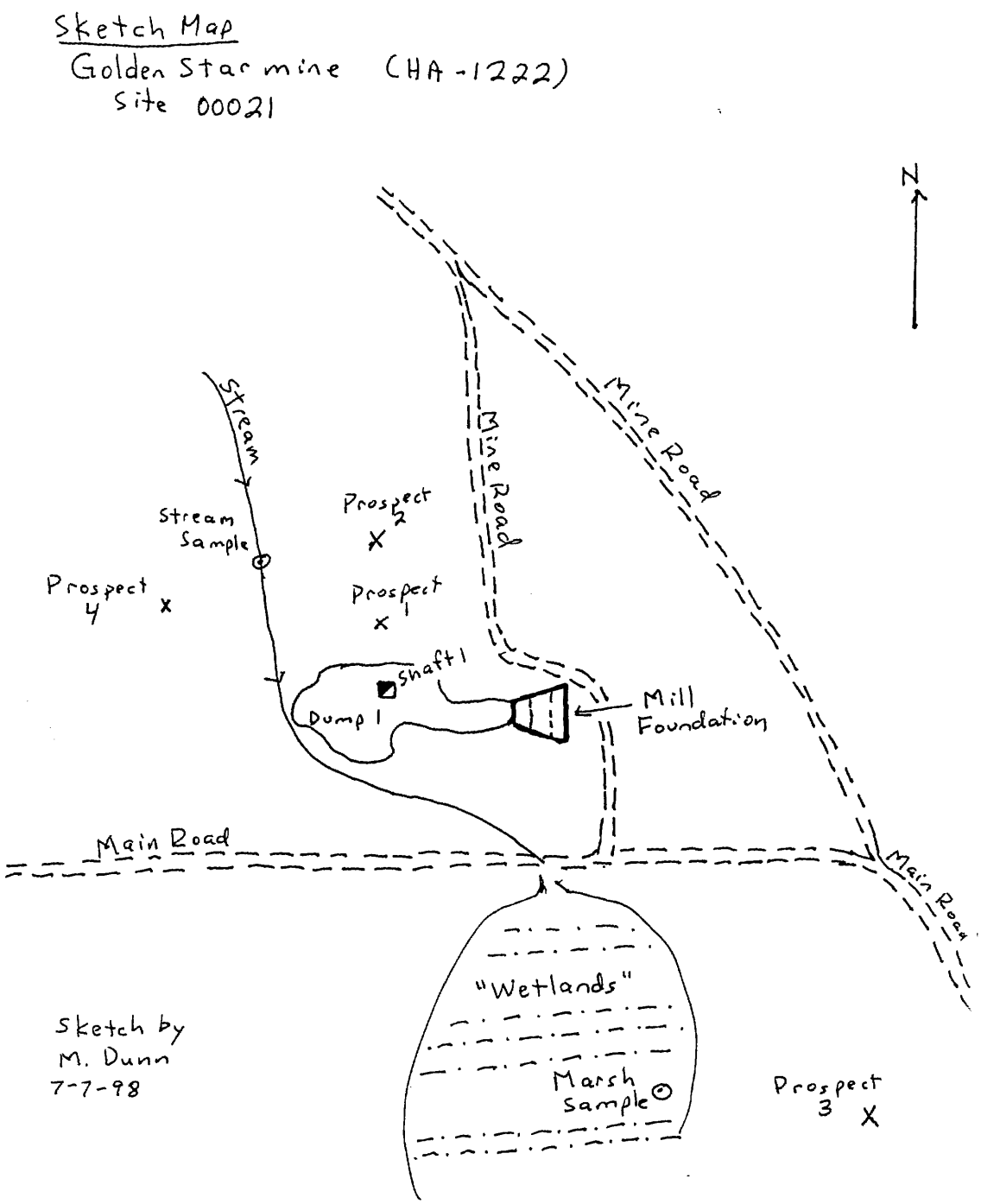

Figure 21-2. Sketch map of the Golden Star mine, Blaine County, Idaho. By Mike Dunn with redrafting by V. S. Gillerman.

BLM AML INVENTORY FIELD CHECKLIST
PHOTO LOG

ID Number: **00021**

Fill out the following for each photo:

Roll Number	Frame Number	Direction	Location/Feature
98-5	16a	30	Shaft #1 of Golden Star mine
(neg.2946)	17a	90	Mill Foundation
	18a	90	Mill Foundation
	19a	170	From prospect #2, looking at shaft #1 and dump
	20a	160	Golden Star property overview
	21a	70	Prospect #3 with dump and puddle, green Cu?
	22a	170	Prospect #4
	23a	350	Stock trough

BLM AML INVENTORY
SUPPLEMENTAL OFFICE DATA SHEET

ID Number: **00021**

A. SITE IDENTIFICATION

Other BLM ID Number : _____

Locatable _____ / Leasable _____ / Salable _____

Operator (last known): _____

Commodities: Primary _____ / Secondary _____

Other Agency ID Number : _____ Agency: _____

B. LOCATION DATA

Site is in _____ or within a mile _____ of:

ACEC _____ / WSA _____ / Wilderness Area _____ / Riparian Area _____

Nominated for Designation to National Wild & Scenic River System _____

C. ACCESS

Distance in Miles to Closest Public :

Road _____ Dwelling _____ School _____

Potable Water _____ Water Source _____ Trail _____

Campground/Picnic Area _____ Other Public Use _____

D. SITE DESCRIPTION

Nearest named drainage: _____ Distance: _____

G. POTENTIAL HAZARDOUS MATERIALS

Site is under regulatory action _____

CERCLIS Number _____ OR

Federal Docket Number _____

H. RECLAMATION: Closure Information

Clearances : Threatened & Endangered Species _____

Cultural Resources _____

Historic _____

Other _____

Date reclamation completed: _____

Type of closure: _____ Cost: _____

Comments: _____

_____

_____

_____

Monitoring frequency: _____ Dates of monitoring visits: _____

_____

_____

_____

_____

_____

(NOTE: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)

(03/95)

Figure 21-3. Shaft 1 of Golden Star mine. The picture is looking to northeast. (Roll 98-5, neg. #2946, frame #16a; photograph by Mike Dunn; June 25,1998).

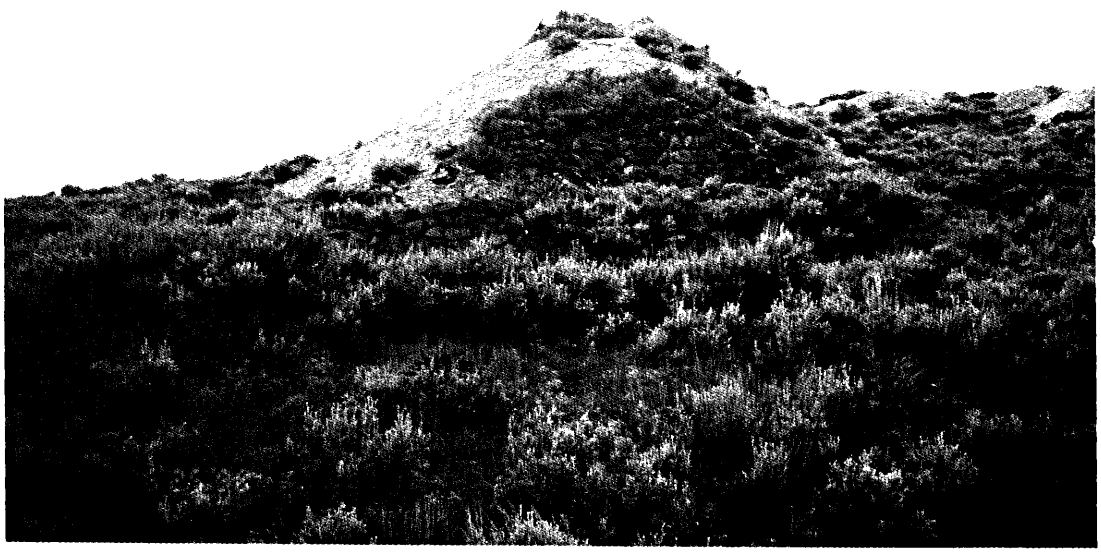

Figure 21-4. Golden Star mill foundation. The picture is looking to east. (Roll 98-5, neg. #2946, frame #17a; photograph by Mike Dunn; June 25,1998).

Figure 21-5. The close up look at mill foundation. The picture is looking to east. (Roll 98-5, neg. #2946, frame #18a; photograph by Mike Dunn; June 25,1998).

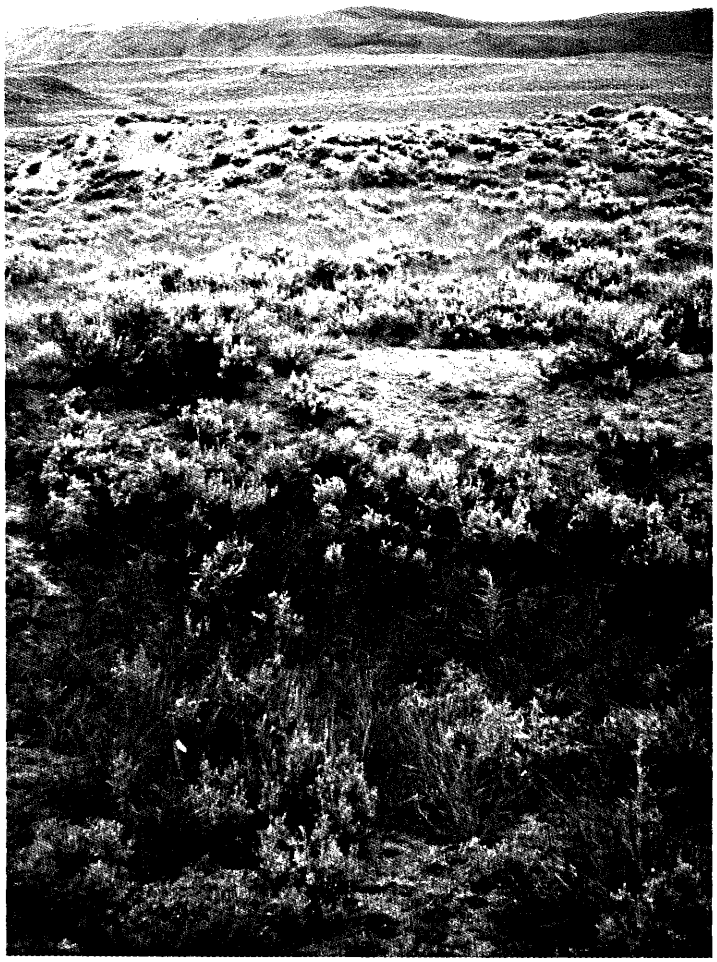

Figure 21-6. From prospect #2, looking at shaft 1 and dump. The picture is looking to south. (Roll 98-5, neg. #2946, frame #19a; photograph by Mike Dunn; June 25,1998).

Figure 21-7. Golden Star mine overview. The picture is looking to south. (Roll 98-5, neg. #2946, frame #20a; photograph by Mike Dunn; June 25,1998).

Figure 21-8. Golden Star mine Prospect 3 with dump and puddle, green Cu oxide (?). Picture is looking to east northeast. (Roll 98-5, neg. #2946, frame #21a; photograph by Mike Dunn; June 25,1998).

Figure 21-9. Prospect 4 of Golden Star mine. The picture is looking to south. (Roll 98-5, neg. #2946, frame #22a; photograph by Mike Dunn; June 25,1998).

Figure 21-10. Stock trough at Golden Star mine. The picture is looking to north. (Roll 98-5, neg. #2946, frame #23a; photograph by Mike Dunn; June 25,1998).

BUREAU OF LAND MANAGEMENT
ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST

A. SITE IDENTIFICATION
ID Number: I D - 0 0 5 4 - 0 0 0 2 2
Site/Mine Name: **Treasure Vault** Primary Commodity: **261 Au**
IGS Number: **HA-1209**

B. LOCATION DATA
USGS Quad: **Richardson Summit** LAT: _____ LONG: _____ **OR**
UTM Coord: **4811577** N **705976** E Zone **11**
Township: **1N** Range: **17E** Section: **20** Subdivision: **NW/SE**
Meridian: **08** County: **013**
Surface: BLM **X** / Non-BLM **X** Mineral Estate: BLM **X** / Non-BLM **X**

C. ACCESS
Visible from: Nearest road **1** / Trail **0** / Population center **0**
Access by: 2wd ___ / 4wd **X** / Hike ___ / Other ___
Access disturbance in need of reclamation: Length _____ / Width _____ / Acres _____
Road Log: _____

Recent human use: **Y** Describe: **Ammunition, Bike tracks. Beer cans**

D. SITE DESCRIPTION
Acreage: _____ Elevation: _____
General slope (degrees): 0-10 ___ / 11-35 **X** / >35 ___
Floodplain: Disturbance in ___ / Adjacent to **X** / NA ___
Recent mineral activity ___ Describe: _____

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits **1** / Closed adits **1** / Open inclines ___ / Closed inclines ___
Open shafts **1** / Closed shafts ___ / Stopes ___
Other openings ___ Type _____
Trenches ___ Length _____ / Prospects **8** / Open drill holes ___

Pits >30 ft. deep ___ / Pits <30 ft. deep ___ / Pit highwall length _____
Waste dumps: <0.1 ac **6** / 0.1 - 5 ac **1** / >5 ac ___
Tailings: <0.1 ac **1** / 0.1 - 5 ac ___ / >5 ac ___
Heaps ___ / Dredge ___
Ponds **1** / Dams **1**
Mills **1** Type **1 ?** , ___ ,

Explosives ___ Describe: _____
Equipment/Machinery ___ / Headframes **1** / Trestles/tramways **1**
Powerlines ___
Structures ___ Type _____
Condition: Good ___ / Fair ___ / Poor ___ / Number Locked _

Homesites ___
Other: **Grave site and marker**

F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation : Healthy X / Stressed ____ / Dead ____ / Nonexistent ____
Evidence of natural revegetation: Y / Describe: Shrub/steppe, with aspens and riparian plants.

ANIMALS
Evidence: Y / Presence: Y / Describe: deer

GEOLOGY
Staining of soils Y Describe: Yellow soil below main dump.
Sulfide minerals N Type(s): ____
Tailings: Confined ____ / Unconfined ___ / Unknown X

HYDROLOGY

		pH	Conductivity	Flow (GPM)	Sketch #
Water flowing from workings :					
Standing water in workings:	Y	8.6	140		
Water through/over tailings:					
waste rock:					
ore:					

Adjacent water sources :	Type	pH	Conductivity	Flow (GPM)	Distance
Ground water:					
Surface water:					
Surface H2O above site:	stream	8.5	100	2	100 ft
Surface H2O below site:		8	150	+50	100 ft below mill

Evidence of aquatic life: Y Location: above & below site Describe: Bugs and healthy vegetation seen.

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange ___
Brown X / Green ___ / Grey-Black ___ / Other ____

Samples collected: ____ Sketch #(s): ____

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills ____ / Acid or Chemical odor ____ / Asbestos ____
Petrochemical Products ____ / Dump sites ____
Power Substations ____ / Transformers ___

Barrels, Tanks, Containers ____ Leaking: ____ Contents: ____

Evidence of Underground Storage Tanks: ____ Describe: ____

Other: ____

H. RECLAMATION

SITE CONDITIONS
Erosion : Rills __Y__ / Gullies __N__ / Sheetwash __N__
Unstable Rock __N__ / Slope instability __N__ / Wind erosion __N__

MITIGATION STATUS
None __N__ / Fencing N / Signs __2__ / Safety hazards mitigated __
Other: _____

Mitigation condition: Good _____ / Fair _____ / Poor _____
Site ID tags : _____ / Locations: _____

OPTIONAL: Identify the critical reclamation measures needed :

__X__ Cable nets, grates
_____ Permanent seal
_____ Gates
_____ Backfill openings, pit
_____ Recontour
__X__ Fences
__X__ Warning signs
_____ Plug open drill holes
_____ Other: _____
_____ Topsoil, soil amendments
_____ Revegetation
_____ Stabilize/destroy structures
_____ Drainage control
_____ Water treatment
_____ Wildlife closure
_____ No action
_____ Trash / clean up

The site is easily accessible to people, and the open water-filled shaft may pose a safety hazard. A sturdy fence around the shaft and/or a grate covering it is recommended.The dam at the mill site appears to pose no hazard based on the health of the vegetation and the size of the trees growing on the dam itself.

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA __X__ Rover File name: __HA 1209__

K. PHOTOGRAPHS
Number of photographs taken: **27 in total. Roll 98-5 (neg. 2946), frames #24a, 25a; Roll 98-6 (neg. 2965), frames #1a-25a (includes duplicates)**

L. ACTION
Site requires immediate investigation __ by: Law Enforcement _____ / BLM _____
HAZMAT _____ / Other _____

Reason: _____

(03/95)

M. FEATURES - PROVIDE DIMENSIONS IN FEET. **Treasure Vault Mine**

Feature	Length	Width	Height or Depth	Mitigation
Prospect 1	**100**	**20**	**10**	**Dump is on perimeter of prospect.**
Prospect 2	**80**	**10**	**4**	**No dump**
Prospect 3	**50**	**15**	**8**	
Dump 1	**30**	**20**	**5**	**Dump for Prospect 3.**
Dump 2				**For Prospect 1.**
Prospect 4	**80**	**5**	**2**	
Dump 3	**80**	**10**	**1**	**West bank of Prospect 4.**
Prospect 5	**60**	**20**	**10**	
Dump 4	**20**	**20**	**5**	**Dump for Prospect 5.**
Prospect 6	**100**	**20**	**10**	
Dump 5	**40**	**25**	**15**	**Dump for Prospect 6.**
Shaft 1	**6**	**6**	**40**	**OPEN. 60° decline with head frame. Water and timbers in bottom of shaft.**
Head frame				**In good shape with intact trestle.**
Dump 6	**Perimeter 1**			**Main dump for Shaft 1.**
Prospect 7	**20**	**10**	**4**	**In gulch east of main workings.**
Dump 7	**10**	**10**	**2**	**Dump for Prospect 7.**
Prospect 8	**20**	**10**	**1**	**Vegetated; no dump.**
Grave site (Other 1)				**Granite boulders and wooden cross mark grave.**
Adit 1				**Caved. Standing water below.**

Feature	Length	Width	Height or Depth	Mitigation
Mill 1				**3 tiers, stone. Located ½ mile below workings, near stream.**
Mill 1 tails	**20**	**60**	**?**	
Dam (Other 2)				**Stone dam, breached. Pond has filled and been vegetated over.**
Adit 2		**2**	**1**	**OPEN, 1 ft X 2 ft.**

field Notes:

The cement on Shaft 1 has the name, " Newton Mining Co., Sept. 22, 1967" inscribed on it. The shaft is open to approximately 50 feet depth and has water and timbers at the bottom. The trestle and head frame at the shaft are in good shape. Soil below the main waste dump is colored a bile yellow, and a sample was collected (sample 1).

The east -west trending vein is virtually covered by prospects, not all of which were entered into the GPS database. At least 10-20 prospects exist. All prospects are perpendicular to the vein. All adits are parallel to the vein. Prospects 1,2 & 3 may be on old home sites.

Deer are present on site. The vegetation is healthy, with aspen & cherry trees.
A grave marker for "Ranger Stiel" is located on site. It is marked with granite boulders and a wooden cross (Other 1 point in GPS file).

The Mill (and tailings) at the shaft reported in the 1946 literature was not seen. It may be covered by the waste dump from the 1967 activity. The 1946 literature suggests a water problem on site; the terraces above the shaft could be to control water runoff and snow melt.

The original mill is in good shape and located approximately ½ mile below the site and on the creek. A stone dam, which is still competent, has large (2 feet D.C.H. diameter) cottonwood trees growing out of it. The pond behind the dam is full and covered with vegetation. The stream currently flows over the dam, forming a waterfall.

There are several feature of historical value at the Treasure Vault mine site. They include:

- **Head frame**
- **Shaft**
- **Mill**
- **Home sites?**
- **Grave site?**

INSPECTED BY: **Mike Dunn** TITLE: **IGS Geologist**
DATE: **6-26-1998**
INSPECTED BY: _____ TITLE: _____ DATE: _____

(03/95)

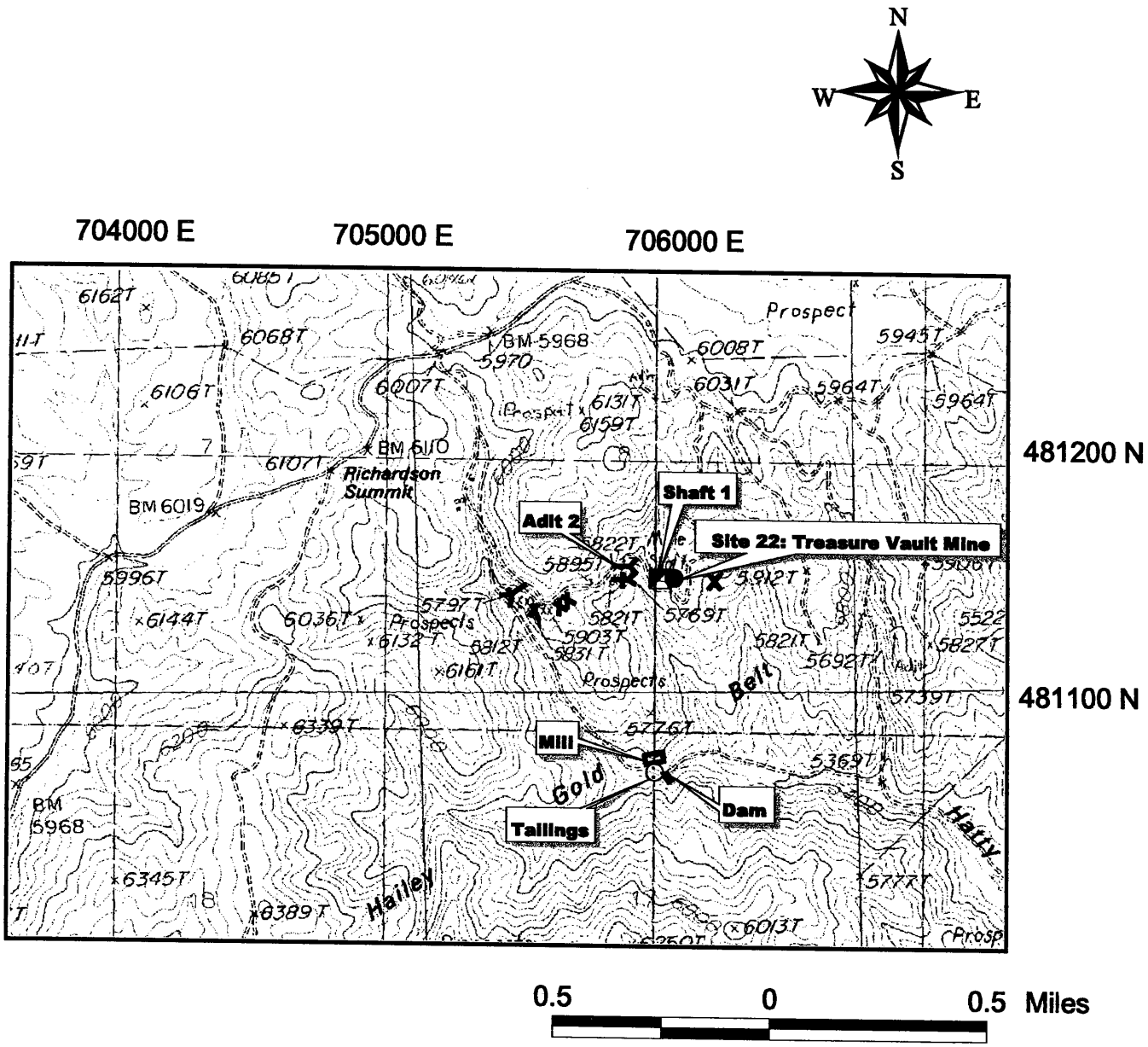

Figure 22-1. Topographic map of Treasure Vault mine, Blaine County, Idaho (U.S. Geological Survey, Richardson Summit 7.5 minute topographic map).

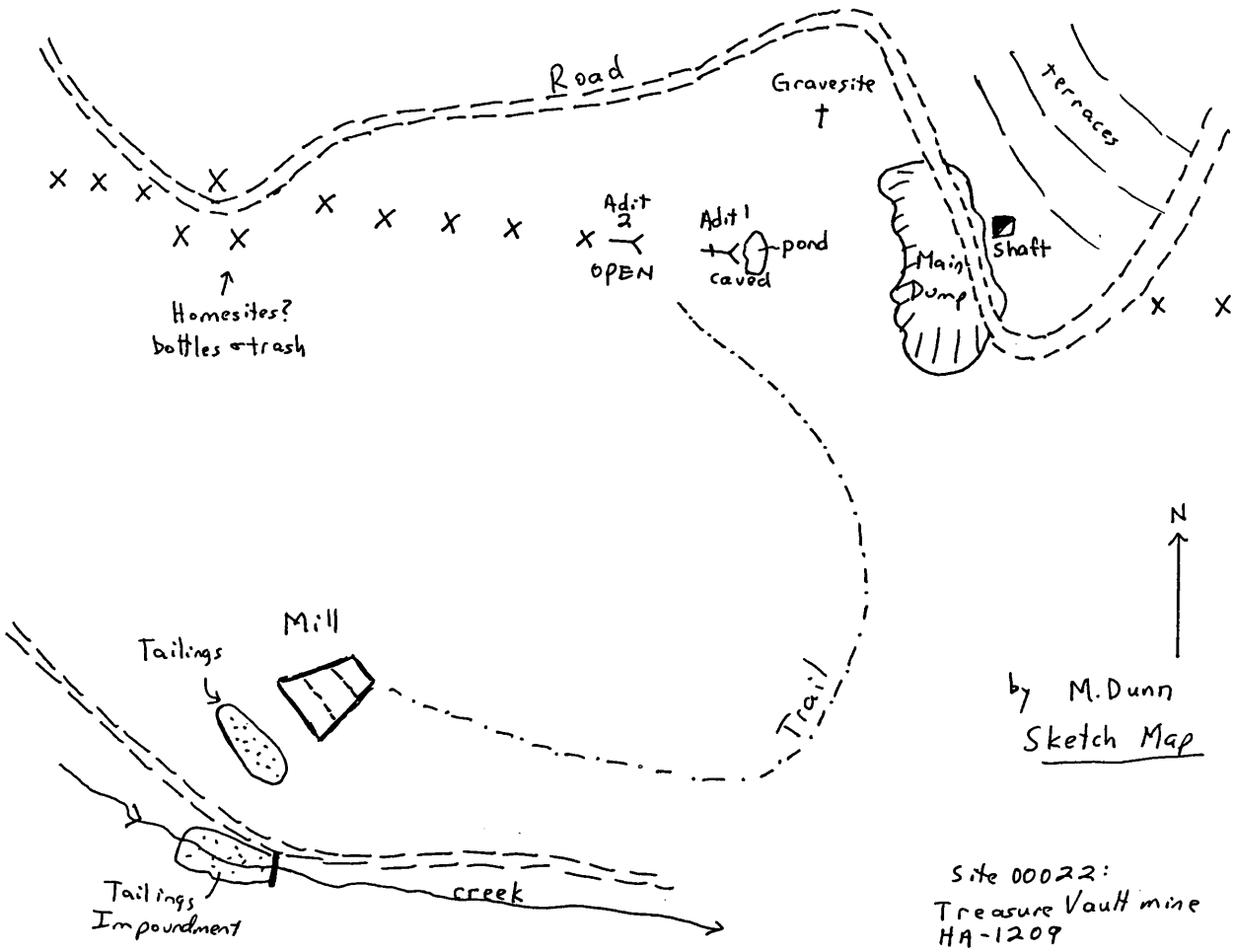

Figure 22-2. Sketch map of Treasure Vault mine, Blaine County, Idaho. By M. Dunn and V.S. Gillerman.

BLM AML INVENTORY FIELD CHECKLIST
PHOTO LOG

ID Number: 00022

Fill out the following for each photo: **Treasure Vault mine** **(Some photos are duplicates.)**

Roll Number	Frame Number	Direction	Location/Feature
98-5	24a	110	Prospect 2 in foreground and Prospect 3 in background.
(neg.2946)	25a	260	Prospect 5
98-6	1a	60	Treasure Vault workings with Shaft 1 and main dump
(neg.2965)	2a	30	Shaft 1 close up, looking down decline
	3a	140	Head frame on Shaft 1
	4a	340	Shaft 1, looking down decline with rails; water in bottom.
	5a	340	Shaft 1, close up of water and timber in bottom.
	6a	240	Grave site marked by boulders and homemade wooden cross.
	7a	240	Grave site, as above.
	8a	110	Inscribed name, "Ranger Stiel," on cross at grave site.
	9a	90	Adit # 1, hidden by trees.
	10a	350	Standing water below Adit 1 (vertical framed photo).
	11a	260	Adit 2 close up, with opening hidden by grass and bushes.
	12a	260	Adit 2 opening, hidden by grass and bushes.
	13a	10	Old mill foundations (1st mill at site: Mill 1 stone walls).
	14a	100	Mill 1 tailings with old iron pulleys (?)
	15a	200	Stone wall tailings dam, with trees growing out of dam.
	16a	250	Filled in and vegetated "pond" behind dam.
	17a	170	Water flowing over old stone dam behind trees.
	18a	280	Close up of trees growing on dam.
	19a	30	Mill 1 showing 3-tiered stone foundation walls.
	20a	150	View of dirt-filled pond behind dam.
	21a	180	View from top of mill, at tailings and filled-in pond in back.
	22a	40	Treasure Vault mine workings and exploration roads.
	23a	50	Treasure Vault mine workings, closer view.
	24a	50	Treasure Vault workings, closer view.
	25a	160	Treasure Vault Gulch, looking down valley.

BLM AML INVENTORY
SUPPLEMENTAL OFFICE DATA SHEET

ID Number: 00022

A. SITE IDENTIFICATION
Other BLM ID Number : _____
Locatable ____ / Leasable ____ / Salable ____
Operator (last known): _____
Commodities: Primary _____ / Secondary _____
Other Agency ID Number : _____ Agency: _____

B. LOCATION DATA
Site is in ____ or within a mile ____ of:
ACEC ____ / WSA ____ / Wilderness Area ____ / Riparian Area ____
Nominated for Designation to National Wild & Scenic River System ____

C. ACCESS
Distance in Miles to Closest Public :
Road ____ Dwelling ____ School ____
Potable Water ____ Water Source ____ Trail ____
Campground/Picnic Area ____ Other Public Use ____

D. SITE DESCRIPTION
Nearest named drainage: _____ Distance: _____

G. POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action ____
CERCLIS Number _____ OR
Federal Docket Number _____

H. RECLAMATION: Closure Information
Clearances : Threatened & Endangered Species _____
Cultural Resources _____
Historic _____
Other _____

Date reclamation completed: _____
Type of closure: _____ Cost: _____
Comments: _____

Monitoring frequency: ____ Dates of monitoring visits: _____

(NOTE: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)

(03/95)

Figure 22-3. Treasure Vault mine, Prospect 2 is in foreground and prospect 3 is in background. Picture is looking to east southeast. (Roll 98-5, neg. #2946, frame #24a; photograph by M. Dunn; June 26,1998).

Figure 22-4. Treasure Vault mine, Prospect 5. Picture is looking to west. (Roll 98-5, neg. #2946, frame #25a; photograph by M. Dunn; June 26,1998).

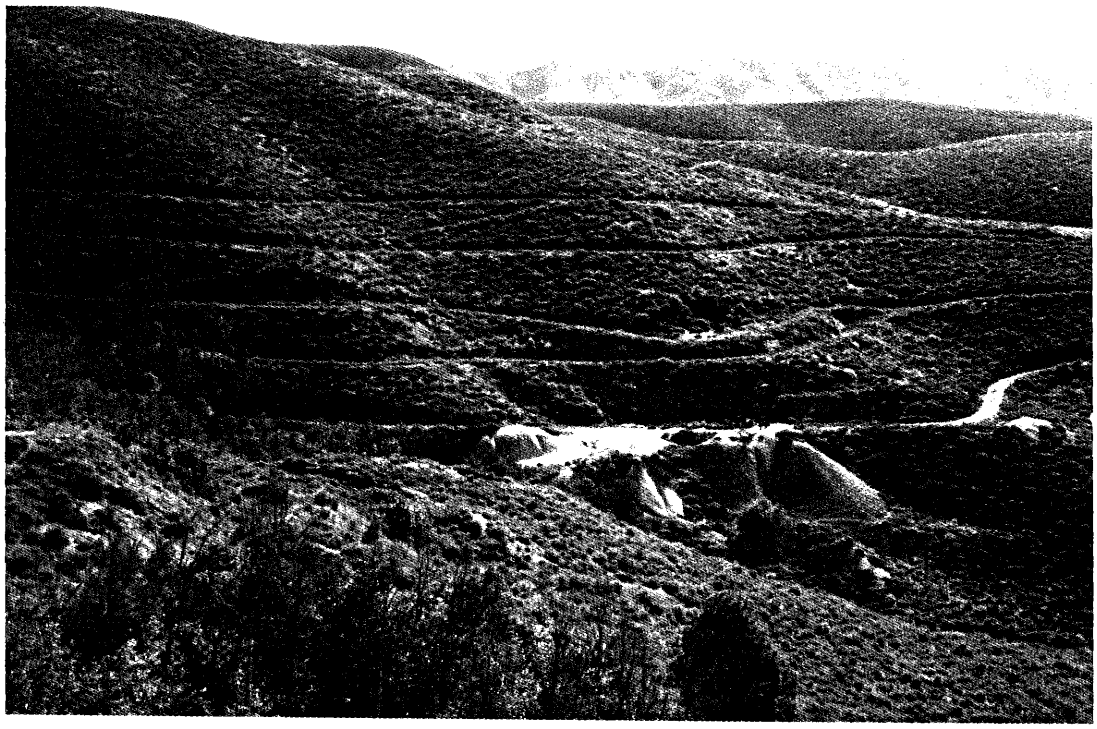

Figure 22-5. Treasure Vault workings with Shaft 1 and main dump. Picture is looking to east northeast. (Roll 98-6, neg. #2965, frame #1a; photograph by M. Dunn; June 26,1998).

Figure 22-6. Treasure Vault mine, Shaft 1 close up, looking down decline. Picture is looking to northeast. (Roll 98-6, neg. #2965, frame #2a; photograph by M. Dunn; June 26,1998).

Figure 22-7. Head frame on Shaft 1 at Treasure Vault mine. Picture is looking to southeast. (Roll 98-6, neg. #2965, frame #3a; photograph by M. Dunn; June 26,1998).

Figure 22-8. Treasure Vault mine, Shaft 1; looking down decline with rails, there is water in bottom. Picture is looking to north northwest. (Roll 98-6, neg. #2965, frame #4a; photograph by M. Dunn; June 26,1998).

Figure 22-9. Treasure Vault mine, Shaft 1 close up; there is water and timbers in bottom. Picture is looking to north northwest. (Roll 98-6, neg. #2965, frame #5a; photograph by M. Dunn; June 26,1998).

Figure 22-10. Grave site marked by boulders and homemade wooden cross. Picture is looking to southwest. (Roll 98-6, neg. #2965, frame #6a; photograph by M. Dunn; June 26,1998).

Figure 22-11. Grave site, as above. Picture is looking to southwest. (Roll 98-6, neg. #2965, frame #7a; photograph by M. Dunn; June 26,1998).

Figure 22-12. Inscribed name, "Ranger Stiel", on cross at grave site. Picture is looking to east southeast. (Roll 98-6, neg. #2965, frame #8a; photograph by M. Dunn; June 26,1998).

Figure 22-13. Treasure Vault mine, Adit 1, hidden by trees. Picture is looking to east. (Roll 98-6, neg. #2965, frame #9a; photograph by M. Dunn; June 26,1998).

Figure 22-14. Standing water below Treasure Vault Adit 1 (vertical framed photo). Picture is looking to north. (Roll 98-6, neg. #2965, frame #10a; photograph by M. Dunn; June 26,1998).

Figure 22-15. Treasure Vault mine, Adit 2 close up, with opening hidden by grass and bushes. Picture is looking to west. (Roll 98-6, neg. #2965, frame #11a; photograph by M. Dunn; June 26,1998).

Figure 22-16. Adit opening, hidden by grass and bushes. Picture is looking to west. (Roll 98-6, neg. #2965, frame #12a; photograph by M. Dunn; June 26,1998).

Figure 22-17. Treasure Vault mine, old mill foundations (1st mill at site: Mill 1 stone walls). Picture is looking to north. (Roll 98-6, neg. #2965, frame #13a; photograph by M. Dunn; June 26,1998).

Figure 22-18. Treasure Vault mine, Mill 1 tailings with old iron pulleys (?) Picture is looking to east. (Roll 98-6, neg. #2965, frame #14a; photograph by M. Dunn; June 26,1998).

Figure 22-19. Treasure Vault mine, stone wall tailings dam, with trees growing out of dam. Picture is looking to south southwest. (Roll 98-6, neg. #2965, frame #15a; photograph by M. Dunn; June 26,1998).

Figure 22-20. Filled in and vegetated "pond" behind dam at Treasure Vault mill site. Picture is looking to west. (Roll 98-6, neg. #2965, frame #16a; photograph by M. Dunn; June 26,1998).

Figure 22-21. Water flowing over old stone dam behind trees at Treasure Vault mine. Picture is looking to south. (Roll 98-6, neg. #2965, frame #17a; photograph by M. Dunn; June 26,1998).

Figure 22-22. Close up of trees growing on dam. Picture is looking to west. (Roll 98-6, neg. #2965, frame #18a; photograph by M. Dunn; June 26,1998).

Figure 22-23. Treasure Vault mine, Mill 1 showing 3-tiered stone foundation walls. Picture is looking to northeast. (Roll 98-6, neg. #2965, frame #19a; photograph by M. Dunn; June 26,1998).

Figure 22-24. View of dirt-filled pond behind dam at Treasure Vault mine. Picture is looking to southeast. (Roll 98-6, neg. #2965, frame #20a; photograph by M. Dunn; June 26,1998).

Figure 22-25. Treasure Vault mine, view from top of mill, tailings and filled in pond in back.(Roll 98-6, neg. #2965, frame #21a; photograph by M. Dunn; June 26,1998).

Figure 22-26. Treasure Vault mine workings and exploration roads. Picture is looking to northeast. (Roll 98-6, neg. #2965, frame #22a; photograph by M. Dunn; June 26,1998).

Figure 22-27. Treasure Vault mine workings, closer view. Picture is looking to northeast. (Roll 98-6, neg. #2965, frame #23a; photograph by M. Dunn; June 26,1998).

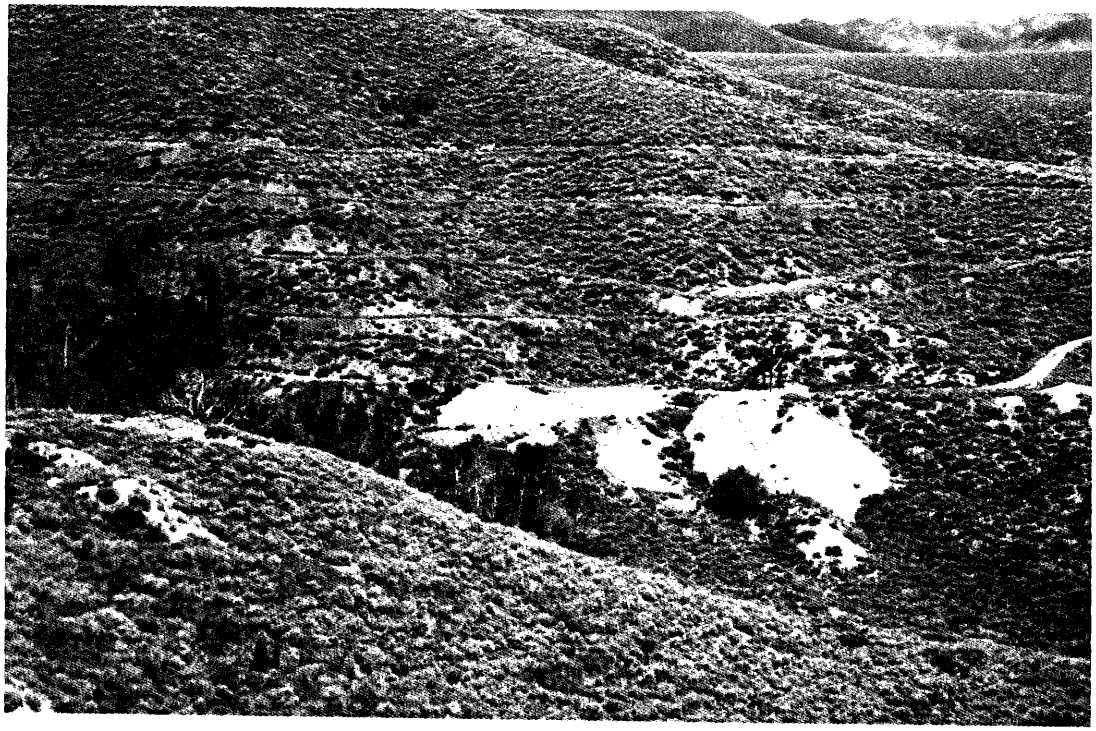

Figure 22-28. Treasure Vault workings, closer view. Picture is looking to northeast.(Roll 98-6, neg. #2965, frame #24a; photograph by M. Dunn; June 26,1998).

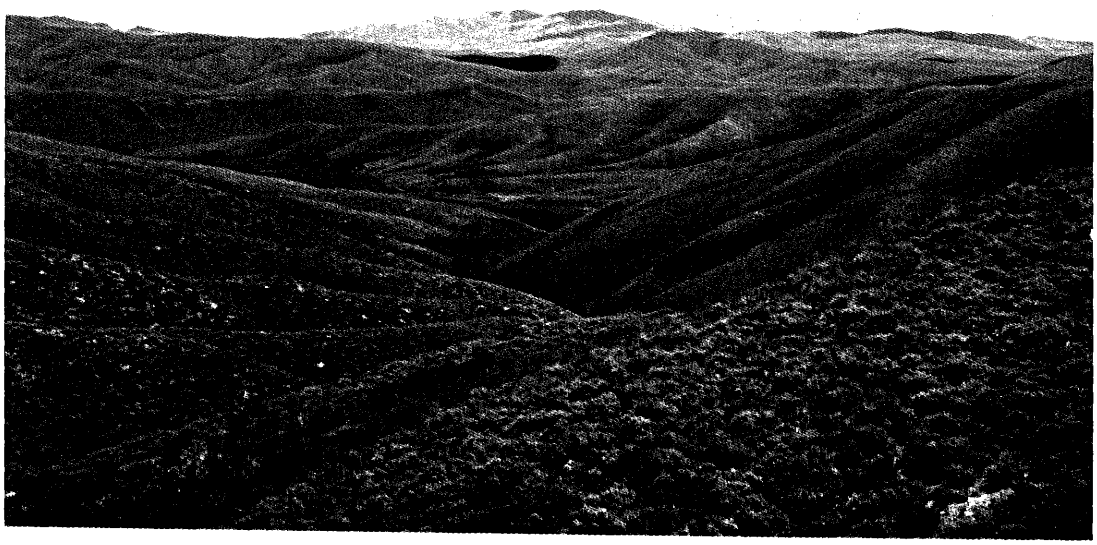

Figure 22-29. Treasure Vault Gulch, looking down valley. Picture is looking to south southeast. (Roll 98-6, neg. #2965, frame #25a; photograph by M. Dunn; June 26,1998).

BUREAU OF LAND MANAGEMENT
ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST

A. SITE IDENTIFICATION
ID Number: I D - 0 0 5 4 - 0 0 0 2 3
Site/Mine Name: **Tip Top** Primary Commodity: **Au 261**
IGS Number: **HA-1217**

B. LOCATION DATA
USGS Quad: **Richardson Summit** LAT: _____ LONG: _____ **OR**
UTM Coord: **4809885** N **705423** E Zone **11**
Township: **1N** Range: **17E** Section: **17** Subdivision: **SW,SW**
Meridian: **08** County: **013**
Surface: BLM **X** / Non-BLM **X** Mineral Estate: BLM **X** / Non-BLM **X**

C. ACCESS
Visible from: Nearest road **3** / Trail ____ / Population center **0**
Access by: 2wd ____ / 4wd **X** / Hike ____ / Other ____
Access disturbance in need of reclamation: Length _____ / Width _____ / Acres _____
Road Log: **Access by good dirt road from main Richardson Summit road.**

Recent human use: **Y** Describe: **beer cans, bullets**

D. SITE DESCRIPTION
Acreage: _____ Elevation: **~6200'**
General slope (degrees): 0-10 ____ / 11-35 **X** / >35 ____
Floodplain: Disturbance in ____ / Adjacent to ____ / NA **X**
Recent mineral activity ____ Describe: **No, but area is part of exploration project with future work planned.**

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits **O** / Closed adits **2** / Open inclines ____ / Closed inclines ____
Open shafts **O** / Closed shafts **3** / Stopes ____
Other openings ____ Type _____
Trenches ____ Length _____ / Prospects **4** / Open drill holes ____

Pits >30 ft. deep _____ / Pits <30 ft. deep _____ / Pit highwall length _____
Waste dumps: <0.1 ac **3** / 0.1 - 5 ac **2** / >5 ac ____
Tailings: <0.1 ac **0 ?*** / 0.1 - 5 ac ____ / >5 ac ____
Heaps **0** / Dredge **0**

***There may be some tailings mixed in with soil below the mill site.**

Ponds _____ / Dams _____
Mills **1** Type **1**, _____, **Amalgamation with 10-stamp mill reported.**

Explosives **No** Describe: _____
Equipment/Machinery **No** / Headframes **No** / Trestles/tramways **No**
Powerlines **No**
Structures **0** Type **None left due to fires**
Condition: Good _____ / Fair _____ / Poor **X** / Number Locked _

Homesites **old**
Other: **1 townsite, inc. old assay furnace. Fires have destroyed all but metal, glass fragments and a few bricks.**

F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation : Healthy __X___ / Stressed _____ / Dead _____ / Nonexistent _____
Evidence of natural revegetation: __Y___ / Describe: **Dumps are too vegetated to easily walk through. Shrub steppe vegetation type.**

ANIMALS
Evidence: __Y__ / Presence: __Y__ / Describe: **Beautiful red fox ran out from bushes by main dump. Deer scat and flies also seen.**

GEOLOGY
Staining of soils __Trace__ Describe: **Brown by old dumps; Fe Oxide by veins and dumps.**

Sulfide minerals __Y__ Type(s): Pyrite? Rare chalcopyrite, sphalerite, siderite present.
Tailings: Confined _____ / Unconfined ___ / Unknown __?__

HYDROLOGY

VERY DRY	#	pH	Conductivity	Flow (GPM)	Sketch
Water flowing from workings :	___	____	_____	_____	_____
Standing water in workings:	___	____	_____		_____
Water through/over tailings:	___	____	_____	_____	_____
waste rock:	___	____	_____	_____	_____
ore:	___	____	_____	_____	_____

Adjacent water sources :	Type	pH	Conductivity	Flow (GPM)	Distance
Ground water:	_____	____	_____	_____	_____
Surface water:	_____	____	_____	_____	
Surface H2O above site:	_____	____	_____	_____	_____
Surface H2O below site:	_____	____	_____	_____	_____

Evidence of aquatic life: _____ Location: _____ Describe: _____

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange ___
Brown ___ / Green ___ / Grey-Black ___ / Other _____

Samples collected: _____ Sketch #(s): _____

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

NO

Chemical piles or spills _____ / Acid or Chemical odor _____ / Asbestos _____
Petrochemical Products _____ / Dump sites ____
Power Substations _____ / Transformers __

Barrels, Tanks, Containers ____ Leaking: ____ Contents:_____

Evidence of Underground Storage Tanks: _____ Describe: _____

Other:_____

H. RECLAMATION

SITE CONDITIONS **OK**
Erosion : Rills _____ / Gullies _____ / Sheetwash _____
Unstable Rock _____ / Slope instability _____ / Wind erosion _____

MITIGATION STATUS
None _**X**_ / Fencing__ / Signs _____ / Safety hazards mitigated __
Other: _____

Mitigation condition: Good _____ / Fair _____ / Poor _____
Site ID tags : _____ / Locations: _____

OPTIONAL: Identify the critical reclamation measures needed :

_____ Cable nets, grates
_____ Permanent seal
_____ Gates
_____ Backfill openings, pit
_____ Recontour
_____ Fences
_____ Warning signs
_____ Plug open drill holes
_____ Other: _____

_____ Topsoil, soil amendments
_____ Revegetation
_____ Stabilize/destroy structures
_____ Drainage control
_____ Water treatment
_____ Wildlife closure
_____ No action
_____ Trash / clean up

Site looks ok; there are no hazards for sober hikers.

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA _**X**_ Rover File name: **HA 1217**

K. PHOTOGRAPHS
Number of photographs taken: **Roll 98-7 (neg. 6729), frames #1a-13a: 13 photos**

L. ACTION
Site requires immediate investigation __ by: Law Enforcement _____ / BLM _____
HAZMAT _____ / Other _____

Reason: _____

(03/95)

M. FEATURES - PROVIDE DIMENSIONS IN FEET. **Tip Top mine**

Feature	Length	Width	Height or Depth	Mitigation
Prospect 1	**20**	**20**	**5**	**OK- not located w/GPS**
Prospect 2	**20**	**30**	**6**	**OK, west of ridge**
Shaft 1 (west side of shaft)	**20**	**20**	**6**	**Caved ? Big shallow depression by large dump.**
Dump 1 (perimeter 1)	**60**	**200**	**30**	
Adit 1				**Caved. Has old well-vegetated dump.**
Prospect 3 (with outcrop)	**100**	**15**	**5**	**OK. Pit is located below prominent vein outcrop on top of hill.**
Shaft 2	**15**	**15**	**5**	**Caved. Was probably main shaft. Sits below steep 40'-high slope.**
Dump 2 (for Shaft 2)	**100**	**200**	**40'**	**OK**
Adit 2				**Caved & partly covered by Dump 2.**
Dump 3	**20**	**50**	**10**	**For Adit 2.**
Mill 1 (perimeter 2)	**50'**	**75'**	**10' high walls**	**Foundation left. It is 3 stone walls, handmade of granite blocks. Historic structure.**
Shaft 3	**15'**	**15'**	**10'**	**Caved & below mill.**
Dump 4 (for Shaft 3)	**30**	**30**	**5**	**Fresh granite on dump.**
Town site				**Remnants of old buildings and furnace.**
Prospect 4/ Dump 5	**Small**			**On ridge to east.**

field Notes:

FIELD NOTES AND SKETCH MAP ARE ON FOLLOWING PAGES.

FIELD NOTES: Tip Top Mine (HA-1217)

The Tip Top mine was one of the larger mines in the Hailey Gold Belt, according to Anderson and Wagner (IBMG Pamphlet 76, 1946). A good dirt road goes to the mine. A large, prominent outcrop on the top of a broad ridge marks the mine area. The WNW-trending, linear outcrop consists of a thick quartz vein, heavily stained by iron oxides and with shearing along the footwall side. A small pit (Prospect 3) has been dug at the eastern base of the outcrop. The vein strikes approximately N80W and dips 42 degrees NE, where it was measured on the surface. Large multicolored dumps are located towards the west side of the ridgetop. A shallow depression marks the likely site of a caved shaft on the west side of the ridge. The literature reports two main inclined shafts, each over 500 feet in depth. The large size of Dump 1 on the west side of the ridge supports the presence of a shaft, although no exact site could be found. The older portion of Dump 1 is strongly iron-stained and has abundant gossan and quartz vein material on it. The younger and less oxidized part of the dump includes fresh granite and lamprophyre as well as altered rock and quartz vein pieces with minor pyrite.

The second main shaft (Shaft 2) and dump (Dump 2) area is on the east side of the ridge, just below the vein outcrop. The actual shaft site sits under a 40-foot "high wall" below Prospect 3; the shaft is surrounded by a very large waste dump. Shaft 2 is caved with a shallow conical pit marking the shaft site. Fallen trees and vegetation are in the pit, which appeared to be approximately 10 feet deep. A piece of concrete foundation and minor scrap metal is next to the shaft site. While a person or animal could easily climb out of the pit unharmed, it might be hazardous to drive a vehicle or heavy equipment over the shaft pit. However, it is highly unlikely anyone would have a vehicle on the dump and shaft area, which is most accessible by foot. A warning sign near Prospect 3 above the high wall would be a good idea, but it is not essential. The main dump is hidden from view of the casual observer driving the roads in the area. The slopes are steep and well-vegetated. Burned trunks and brush are evidence of recent fires which have destroyed most remains of the mining era. However, a major fire in 1900 apparently destroyed many of the mines and buildings in the Hailey Gold Belt.

Several other small prospects or caved adits are located below Dump 2 and on the ridge to the east. However, the most interesting and valuable feature on the property is the foundation of the old mill, which is located in the gulch south of Dump 2. The three stone wall foundations of the old mill are approximately 100 feet below the base of Dump 2, which covers the upper reaches of the gulch. The intact walls are handmade of granite blocks and are about 50 feet long and 10 feet high. They constitute a very impressive, historically significant structure, which is in excellent shape. Part of an old iron stamp was found on the lower level, confirming that this was the early stamp mill reported in the literature. A few pieces of rusty scrap metal were noted. However, no distinct tailings pile was seen, although a small berm below the mill's lower level near the head of the drainage had a reddish color and may be a mix of soil and very old tailings. The berm was heavily vegetated and the drainage was dry during the visit. A newer mill was reported to be some 1-2 miles down valley and to the east. The exact location is problematic and a search will require additional field work.

At about the same elevation as the mill foundation and along contour to the northeast is a flatter bench with remains of a townsite and assay office. Old bricks, fragments of colored glass, broken assay crucibles, and an assortment of scrap mark the site of what must have been an assay furnace. Other remains of cabin sites, including porcelain pieces and glass, tin cans, etc., are located around the gulch to the east. One 6-foot deep, recently hand-dug shovel hole suggested that treasure hunters still excavate the site.

There are no significant hazards at the site. The workings are all caved. Wood structures and equipment have been destroyed by fires, and no environmental problems were noted.

INSPECTED BY: Virginia Gillerman TITLE: IGS Geologist DATE: 7-13-98
INSPECTED BY: Mike Dunn TITLE: Geologist DATE: 7-13-98

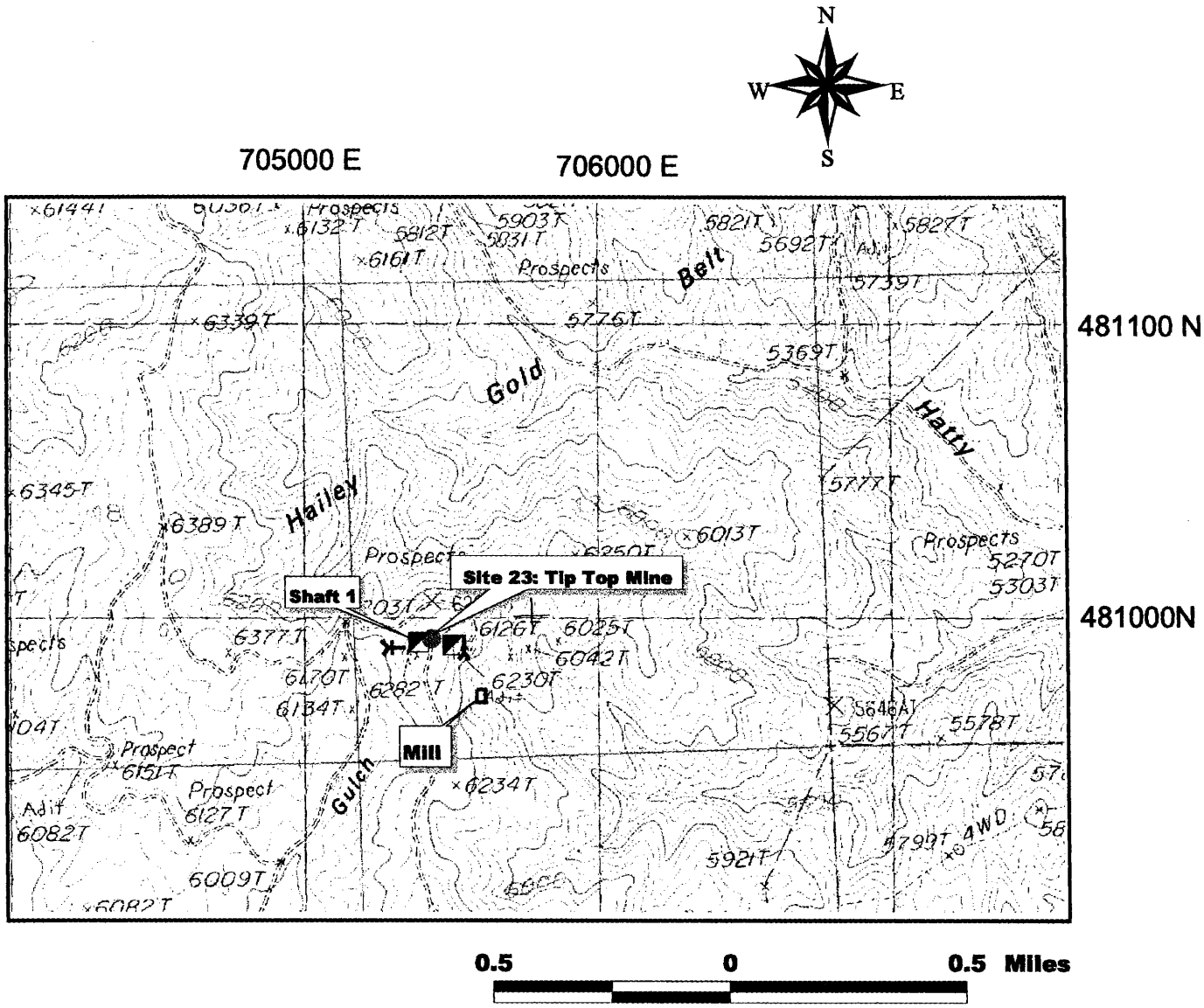

Figure 23-1. Topographic map of the Tip Top mine, Blaine County, Idaho (U.S. Geological Survey, Richardson Summit, 7.5 minute topographic map).

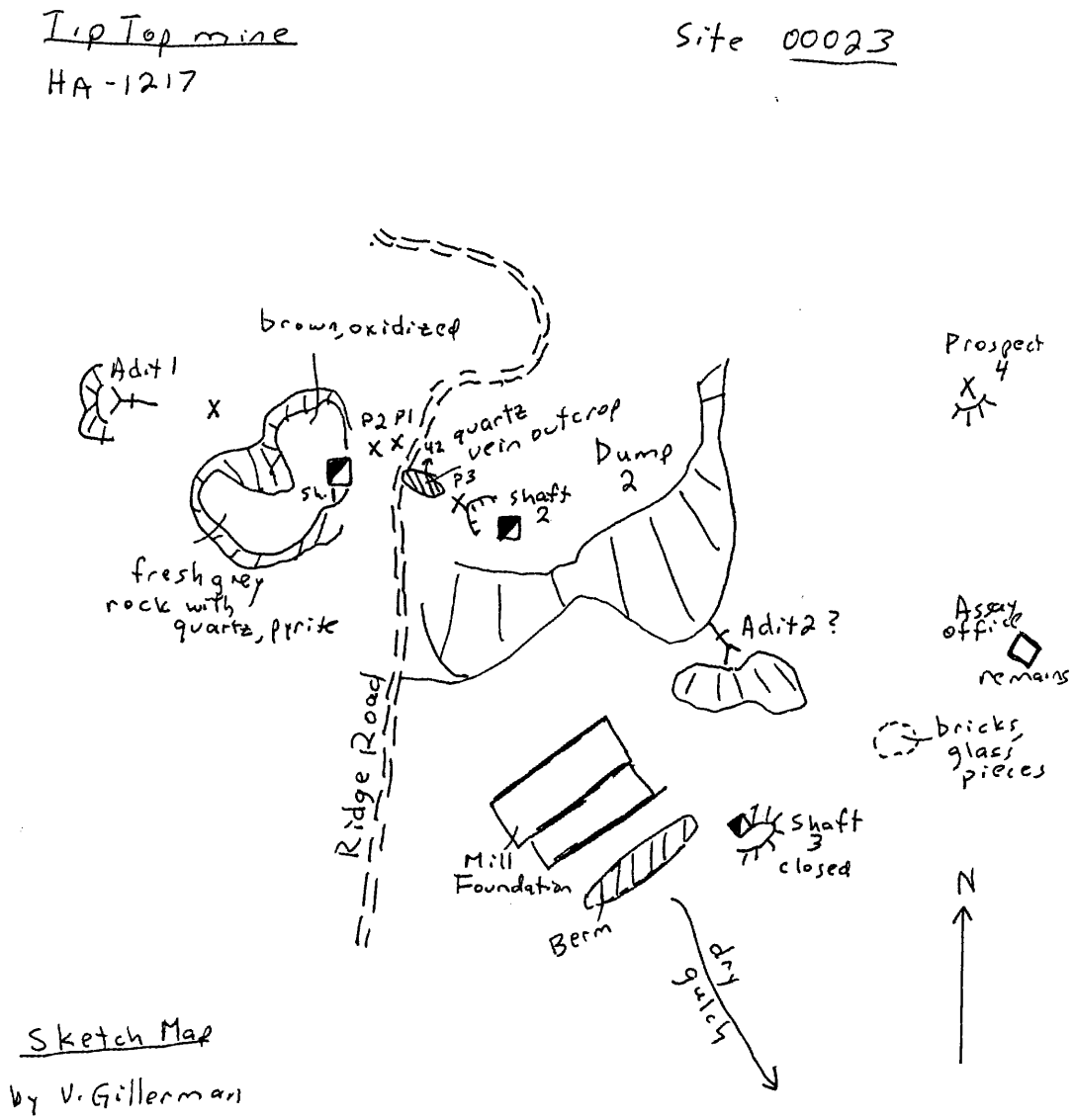

Figure 23-2. Sketch map of the Tip Top Mine, Blaine County, Idaho. By V.S. Gillerman.

BLM AML INVENTORY FIELD CHECKLIST
PHOTO LOG

ID Number: 00023

Fill out the following for each photo: **Tip Top mine**

Roll Number	Frame Number	Direction	Location/Feature
Hailey 98-7	1a	120	Shaft 1, caved to form shallow depression.
	2a	210	Dump 1 with iron-stained, oxidized portion in foreground. Note greyer material in back.
(Neg. 6729)	3a	080	Adit 1, caved
	4a	070	Shaft 2 on east side of ridge. Close-up looking down from below the vein outcrop.
	5a	080	Shaft 2 with Dump 2 around it. Note size and vegetation.
	6a	170	Mill foundation and small tan dump, looking down from Dump 2.
	7a	035	Adit 2 and Dump 3, below Dump 2 in back.
	8a	225	Mill foundation with upper stone wall.
	9a	085	Assay office ruins & remnants, including old bricks, fire brick, clay, rocks, and metal scraps.
	10a	280	Recent shovel hole, dug by hand, for artifact prospecting at old townsite.
	11a	280	Tip Top Mill site overview. Dump 2 is on right. Photo is taken from town site area. Note the healthy vegetation and lack of tailings pile at site.
	12a	140	Surface outcrop of vein by Prospect 3.
	13a	230	Vein outcrop in cross-section, showing the footwall portion with shearing and pale green alteration near hammer. Clay or Mica? Note abundant iron oxide stain on quartz vein. Taken in Prospect 3.

BLM AML INVENTORY
SUPPLEMENTAL OFFICE DATA SHEET

ID Number: **00023**

A. SITE IDENTIFICATION
Other BLM ID Number : _____
Locatable _____ / Leasable _____ / Salable _____
Operator (last known): _____
Commodities: Primary _____ / Secondary _____
Other Agency ID Number : _____ Agency: _____

B. LOCATION DATA
Site is in _____ or within a mile _____ of:
ACEC _____ / WSA _____ / Wilderness Area _____ / Riparian Area _____
Nominated for Designation to National Wild & Scenic River System _____

C. ACCESS
Distance in Miles to Closest Public :
Road _____ Dwelling _____ School _____
Potable Water _____ Water Source _____ Trail _____
Campground/Picnic Area _____ Other Public Use _____

D. SITE DESCRIPTION
Nearest named drainage: _____ Distance: _____
_____

G. POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action _____
CERCLIS Number _____ OR
Federal Docket Number _____

H. RECLAMATION: Closure Information
Clearances : Threatened & Endangered Species _____
Cultural Resources _____
Historic _____
Other _____

Date reclamation completed: _____
Type of closure: _____ Cost: _____
Comments: _____
_____
_____
_____

Monitoring frequency: _____ Dates of monitoring visits: _____
_____
_____
_____
_____
_____

(NOTE: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)

(03/95)

Figure 23-3. Tip Top Shaft 1, caved to form shallow depression. Picture is looking to southeast. (Roll Hailey 98-7, neg. #6729, frame #1a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-4. Dump 1 of Tip Top mine with iron-stained, oxidized portion in foreground. Note greyer material in the back. Picture is looking to west. (Roll Hailey 98-7, neg. #6729, frame #2a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-5. Tip Top Adit 1, caved. Picture is looking to east. (Roll Hailey 98-7, neg. #6729, frame #3a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-6. Shaft 2 of Tip Top mine on east side of the ridge. Close-up looking down from below the vein outcrop. Picture is looking to northeast. (Roll Hailey 98-7, neg. #6729, frame #4a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-7. Shaft 2 of Tip Top mine with Dump 2 around it. Note the size and the vegetation. Picture is looking to east. (Roll Hailey 98-7, neg. #6729, frame #5a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-8. Tip Top mine mill foundation and small tan dump, looking down from Dump 2. Picture is looking to south. (Roll Hailey 98-7, neg. #6729, frame #6a; photograph by V.S. Gillerman; July 13,1998).

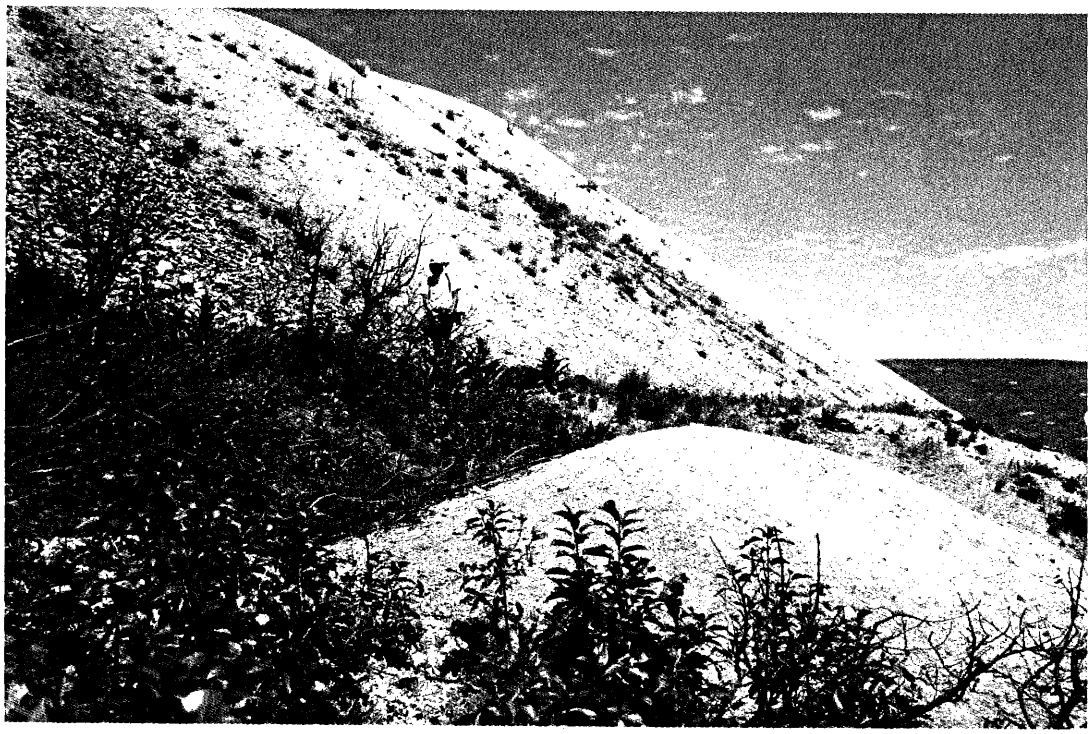

Figure 23-9. Adit 2 and Dump 3 of Tip Top mine; Dump 2 is uphill in background. Picture is looking to northeast. (Roll Hailey 98-7, neg. #6729, frame #7a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-10. Tip Top mine mill foundation with upper stone wall. Picture is looking to southwest. (Roll Hailey 98-7, neg. #6729, frame #8a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-11. Tip Top mine assay office ruins and remnants, including old bricks, fire brick, clay, rocks and metal scraps. Picture is looking to east. (Roll Hailey 98-7, neg. #6729, frame #9a; photograph by V.S. Gillerman; July 13,1998).

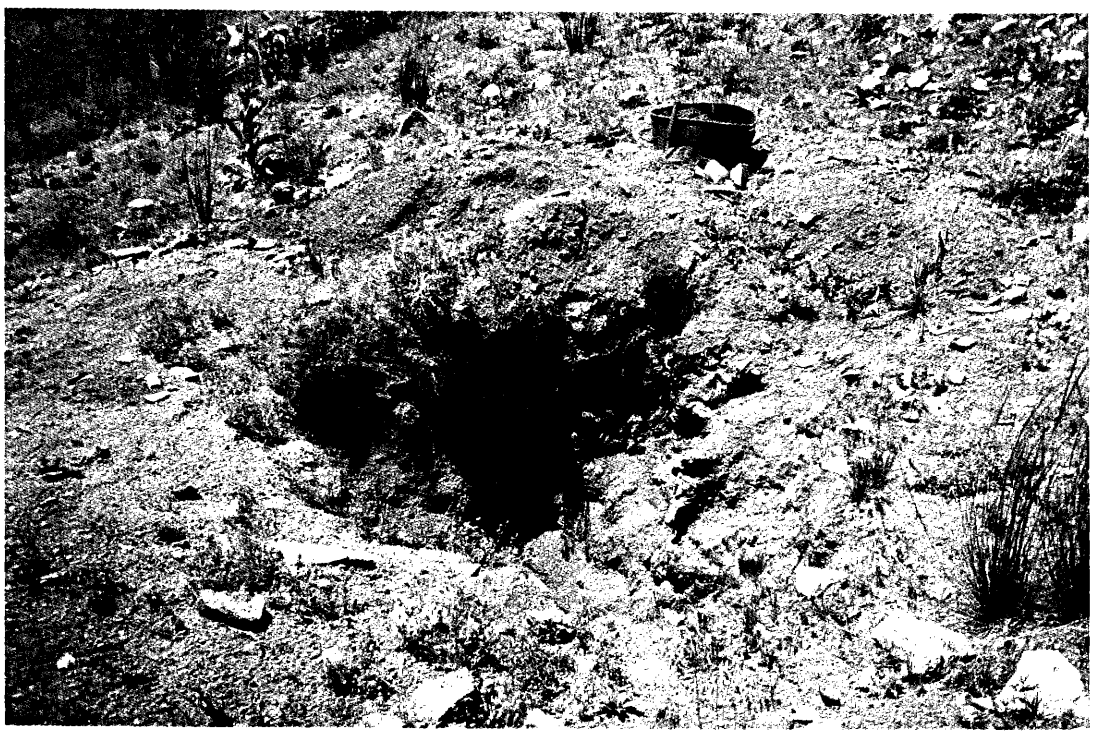

Figure 23-12. Site 23: Recent shovel hole, dug by hand, for artifact prospecting at old town site. Picture is looking to west. (Roll Hailey 98-7, neg. #6729, frame #10a; photograph by V.S. Gillerman; July 13,1998).

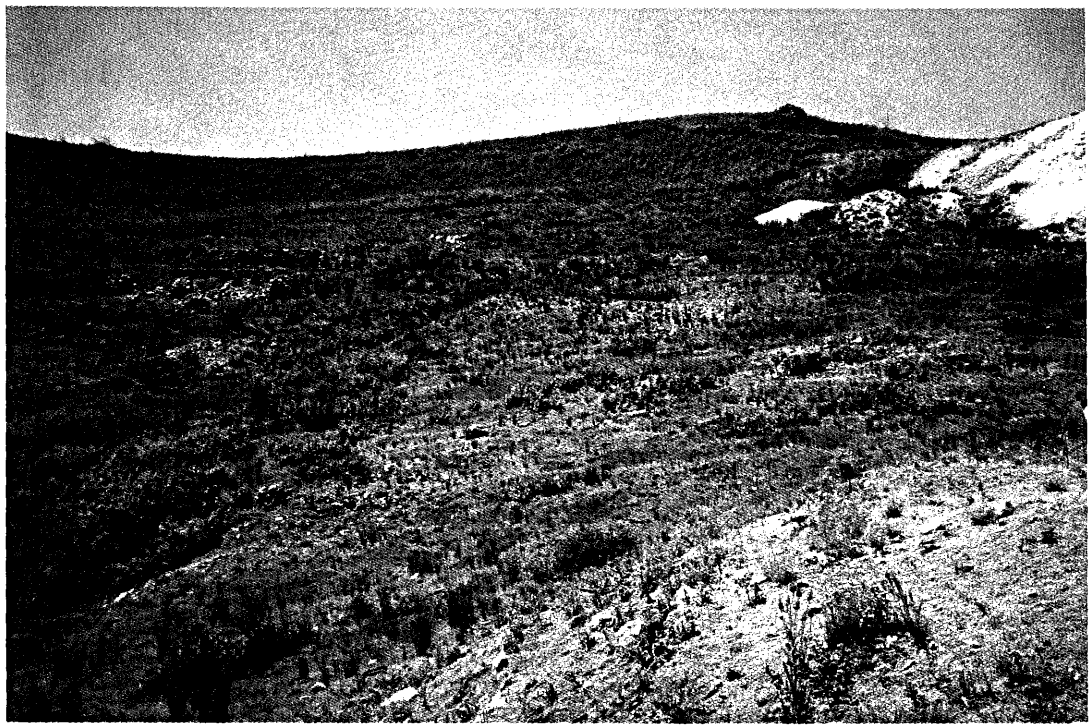

Figure 23-13. Tip Top mill site overview. Dump 2 is on right. Photo is taken from town site area. Note the healthy vegetation and lack of tailings pile at mill site. Picture is looking to west. (Roll Hailey 98-7, neg. #6729, frame #11a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-14. Site 23: Surface outcrop of vein by Prospect 3. Picture is looking to southeast. (Roll Hailey 98-7, neg. #6729, frame #12a; photograph by V.S. Gillerman; July 13,1998).

Figure 23-15. Site 23: Vein outcrop in cross-section, showing the footwall portion with shearing and pale green alteration near hammer. Clay or Mica? Note abundant iron oxide stain on quartz vein. Taken in Prospect 3. Picture is looking to southwest. (Roll Hailey 98-7, neg. #6729, frame #13a; photograph by V.S. Gillerman; July 13,1998).