SITE INSPECTION REPORT FOR THE ABANDONED AND INACTIVE MINES IN IDAHO ON U.S. FOREST SERVICE LANDS (REGION 4)

CHAPTER NINE:
TARGHEE NATIONAL FOREST

PART A:
DUBOIS RANGER DISTRICT

SECTION II:
PROPERTIES IN THE BIRCH CREEK MINING DISTRICT, LEMHI AND CLARK COUNTIES, IDAHO

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TABLE

Table 9Aii-1. Summary of the results of the field inspection of the mines in the Birch Creek mining district, Dubois Ranger District, Targhee National Forest. 9Aii-2

Geology

The mines in the Birch Creek district (Figure 1) are copper and lead deposits in the Devonian Jefferson Formation or the Ordovician Kinnikinic Quartzite (Figure 2; Embree and others, 1983). The ore occurred in fissure and shear zones and in irregular masses along bedding planes (Anderson and Wagner, 1944). The principal minerals at the Worthing/Kauffman Mine (which was mined for lead) were cerrusite, anglesite, and galena, while the main minerals at the Weimer Copper Mine were chalcocite and malachite (Shenon, 1928).

References

Anderson, Alfred L., and Warren R. Wagner, 1944, Lead-zinc-copper deposits of the Birch Creek district, Clark and Lemhi Counties, Idaho: Idaho Bureau of Mines and Geology Pamphlet 70, 43 p.

Embree, G.F., R.D. Hoggan, and E.J. William, 1983, Preliminary reconnaissance geologic map of the Copper Mountain Quadrangle, Lemhi County, Idaho: U.S. Geological Survey Open-File Report 83-599, 9 p.

Rember, W.C., and E.H. Bennett, 1979, Geologic map of the Dubois Quadrangle, Idaho: Idaho Bureau of Mines and Geology Geologic Map Series.

Shenon, P.J., 1928, Geology and ore deposits of the Birch Creek district, Idaho: Idaho Bureau of Mines and Geology Pamphlet 27, 25 p.

Umpleby, J.B., 1917, Geology and ore deposits of the Mackay region, Idaho: U.S. Geological Survey Professional Paper 97, 129 p.

Table 9Aii-1. Summary of the results of the field inspection of the mines in the Birch Creek mining district, Dubois Ranger District, Targhee National Forest.

Site No.	Name	Rating	Adit discharge?	Open workings?	Hazardous materials?	Recommendations and Comments
DU 490	Worthing/Kauffman Mine	low	No	Yes	No	Close the roads from Worthing and Pierce Creeks; secure the adits.
DU 497	Weimer Copper Mine	low	No	Yes	No	Request that the owners secure the adits.

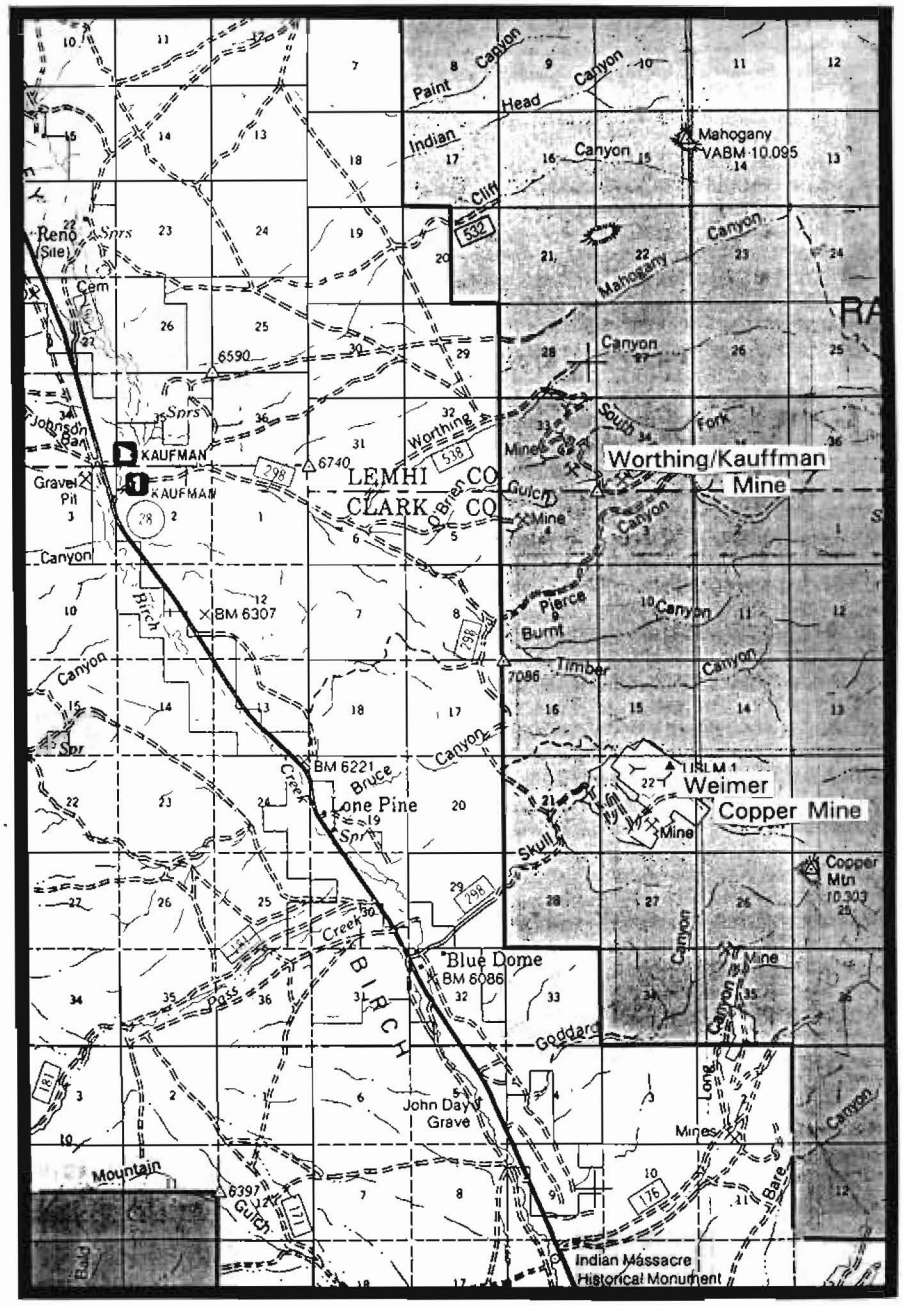

Figure 9Aii-1. Location map of the Birch Creek mining district and vicinity, Lemhi and Clark Counties, Idaho (U.S. Forest Service Targhee National Forest map, scale ½ inch = 1 mile).

Figure 9Aii-2. Geology of the Birch Creek mining district and vicinity, Lemhi and Clark Counties, Idaho. pЄw = Late Precambrian Wilbert Formation; DOu = Ordovician Kinnikinic and Devonian Jefferson Formations; Mmgm = Mississippian McGowan Creek and Middle Canyon Formation, undivided; Mmd = Mississippian Middle Canyon Formation; Msp = Mississippian Scott Peak Formation; Msc = Mississippian South Creek and Surrett Canyon Formations, undifferentiated; Mbm = Mississippian Big Snowy and Mission Canyon Formations, undifferentiated; Mu = Mississippian McGowan Creek, Middle Canyon, Scott Peak, South Creek, Surrett Canyon, and Big Snowy Formations, undifferentiated; **P**q, **P**qq = Pennsylvanian Quadrant Formation; PMu = Mississippian-Pennsylvanian Bluebird Mountain Formation and Pennsylvanian-Permian Snaky Canyon Formation, undifferentiated; Tesr = Tertiary Edie School Rhyolite; QTv = Tertiary and Quaternary rhyolite, basalt, limestone, and detrital rocks; Qf = Pleistocene alluvial fans; Qal = Quaternary alluvium. Heavy lines are faults; sawteeth mark the upper plates on thrust faults (Rember and Bennett, 1979, with rock units modified after Embree and others, 1983).

(circle one potential) **LOW** MEDIUM HIGH

AIM SITE DISCOVERY FORM

Name: Worthing/Kauffman Mine Region 4 Forest Targhee District Dubois Site No. DU 490

State ID County Clark Lat. 44-13-54 Long. 112-52-10 Tract # _____
3 10N 30E

Principal Meridian BOISE Section 34 Township 11N Range 30E USGS 7.5 Quad Copper Mtn.

Land Ownership (circle one) Private land; **FS land**; Mixture; Undetermined; if private land, does it affect FS land? If no, stop here.

CRITERIA A Answer each question with Y=yes or N=no.

N 1. Are there adits with discharge or evidence of discharge?

N 2. Are there millsites or tailings present?

3. If the mine waste rock volume is > 500 yd^3, then complete (a) through (e), otherwise go to 4.

N (a) Is the potential source located in a municipal watershed?

N (b) Is the potential source located in a floodplain?

N (c) Are there dwellings, residences, campsites, or other public use areas nearby (e.g. 200 feet)?

N? (d) Are there domestic wells within a 4-mile radius of the site?

N (e) Are there surface water intakes within 15 miles downstream of the site?

N 4. Is there known damage to fisheries, T&E species, downstream aquatic communities, wetlands, or other sensitive environments?

N 5. Are there unidentified materials, chemicals, or wastes, etc., on site?

GENERAL INFORMATION

Are there open adits or shafts present? (circle one) **yes** no see notes

Are there dangerous structures present? (circle one) yes **no**

Total area/Disturbed area (acres) _____ / 100

Level of public interest: Low X Medium ___ High ___

FJM 7/14/94
Signature Date

If any answer in CRITERIA A is yes, go to CRITERIA B, otherwise circle LOW on top of page and stop.

Name Worthing/Kauffman Mine Region 4 Forest Targhee District Dubois Site No. DU 490

CRITERIA B Answer each question with Y = yes, or N = no.

_____ 6. Is site under regulatory or legal action?

_____ 7. Is there a mine waste stability concern?

_____ 8. Is there evidence of acidic and/or heavy metal conditions present? Check Y if any answer to questions (a) through (d) below is circled.

(a) Is surface water discolored?	Yes	No
(b) Is vegetation affected?	Yes	No
(c) Is pH value < 4?	Yes	No
(d) Others (explain)	Yes	No

_____

If question (6), (7), or (8) is answered yes, It is a HIGH POTENTIAL SITE, otherwise, it is a MEDIUM POTENTIAL SITE. Circle the appropriate entry on the top of the page and continue.

DETAIL DESCRIPTION/COMMENTS (fill in as much information as appropriate)

Stream or discharge water:

Flow rate (cfs)	date_____	value_____	date_____	value_____
pH value	date_____	value_____	date_____	value_____
Specific conductivity	date_____	value_____	date_____	value_____

NFS Watershed Code_____ Affected stream name and length_____

Total area/Disturbed area (acres)_____/_____ Adit No._____ Shaft No._____

Impoundment area (acres)_____ Tailings (yd^3)_____ Waste Rock (yd^3)_____

Structures (buildings, headframes, mills, etc.) Explain:_____

_____

_____

Other data, comments, and explanations included on the back of this page? Yes X No___

Picture taken? Yes X No__ If YES Film roll number 517288 Frame numbers 28-34

FJM _____ 7/14/94 _____

Signature Date

Worthing/Kauffman Mine — DU 490

I divided the disturbed area into two sections:

Area 1: There are many small- to moderate-size workings in this area. There are more than 6 open adits, some of them potentially dangerous (photographs 517288-28 and 517288-31).

Area 2: There is one large open-pit mine (photograph 517288-30) and several small prospects in this area.

The entire area between the South Fork of Worthing Canyon and Pierce Creek is extremely dry and I saw no evidence of acid drainage.

Safety is a potential concern. There are many nasty-looking open adits. In addition, there are a few places where the mine workings are undermining the steep side hill roads. I am not sure why the roads in this area are open, and I would recommend closing access from Worthing and Pierce Creeks.

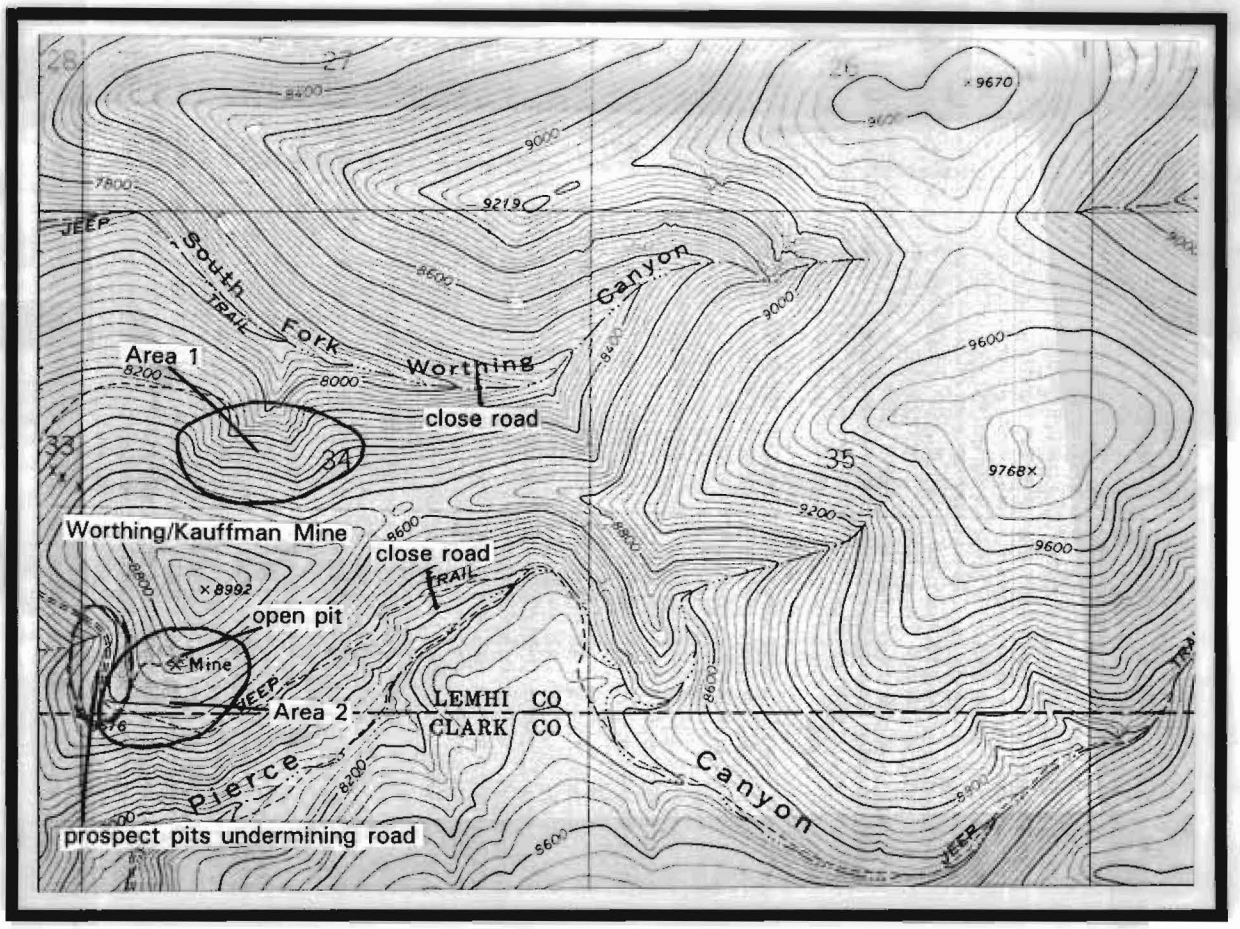

Figure 9Aii-3. Topographic map of the Worthing/Kauffman Mine and vicinity (U.S. Geological Survey Copper Mountain 7.5-minute topographic map).

Figure 9Aii-4. Open adit at the Worthing/Kauffman Mine (roll 517288, frame #28).

Figure 9Aii-5. Disturbed area and open adit at the Worthing/Kauffman Mine (roll 517288, frame #31).

Figure 9Aii-6. Typical waste dump at the Worthing/Kauffman Mine (roll 517288, frame #29).

Figure 9Aii-7. Open pit area at the Worthing/Kauffman Mine (roll 517288, frame #30).

(circle one potential) **LOW** MEDIUM HIGH

AIM SITE DISCOVERY FORM

Name: Weimer Copper Mine Region 4 Forest Targhee District Dubois Site No. DU 497

State ID County Clark Lat. 44-11-07 Long. 112-51-31 Tract # _____

Principal Meridian BOISE Section 22 Township 10N Range 30E USGS 7.5 Quad Copper Mtn.

Land Ownership (circle one) **Private land**; FS land; Mixture; Undetermined; if private land, does it affect FS land? If no, stop here. Yes.

CRITERIA A Answer each question with Y=yes or N=no.

N 1. Are there adits with discharge or evidence of discharge?

N 2. Are there millsites or tailings present?

3. If the mine waste rock volume is > 500 yd^3, then complete (a) through (e), otherwise go to 4.

N (a) Is the potential source located in a municipal watershed?

N (b) Is the potential source located in a floodplain?

N (c) Are there dwellings, residences, campsites, or other public use areas nearby (e.g. 200 feet)?

N (d) Are there domestic wells within a 4-mile radius of the site?

N (e) Are there surface water intakes within 15 miles downstream of the site?

N 4. Is there known damage to fisheries, T&E species, downstream aquatic communities, wetlands, or other sensitive environments?

N 5. Are there unidentified materials, chemicals, or wastes, etc., on site?

GENERAL INFORMATION

Are there open adits or shafts present? (circle one) **yes** no adits & shafts - 15

Are there dangerous structures present? (circle one) yes **no** many small to medium dump pits

Total area/Disturbed area (acres) _____ / 10 _____

Level of public interest: Low X Medium ___ High ___

FJM _____ 7/14/94 _____

Signature Date

If any answer in CRITERIA A is yes, go to CRITERIA B, otherwise circle LOW on top of page and stop.

Name Weimer Copper Mine Region 4 Forest Targhee District Dubois Site No. DU 497

CRITERIA B Answer each question with Y=yes, or N=no.

_____ 6. Is site under regulatory or legal action?

_____ 7. Is there a mine waste stability concern?

_____ 8. Is there evidence of acidic and/or heavy metal conditions present? Check Y if any answer to questions (a) through (d) below is circled.

(a) Is surface water discolored?	Yes	No
(b) Is vegetation affected?	Yes	No
(c) Is pH value < 4?	Yes	No
(d) Others (explain)	Yes	No

_____

If question (6), (7), or (8) is answered yes, It is a HIGH POTENTIAL SITE, otherwise, it is a MEDIUM POTENTIAL SITE. Circle the appropriate entry on the top of the page and continue.

DETAIL DESCRIPTION/COMMENTS (fill in as much information as appropriate)

Stream or discharge water:

Flow rate (cfs)	date_____	value_____	date_____	value_____
pH value	date_____	value_____	date_____	value_____
Specific conductivity	date_____	value_____	date_____	value_____

NFS Watershed Code_____ Affected stream name and length Skull Canyon

Total area/Disturbed area (acres)_____/_____ Adit No._____ Shaft No._____

Impoundment area (acres)_____ Tailings (yd^3)_____ Waste Rock (yd^3)_____

Structures (buildings, headframes, mills, etc.) Explain:_____

_____

_____

Other data, comments, and explanations included on the back of this page? Yes X No___

Picture taken? Yes X No__ If YES Film roll number 517288 Frame numbers 26-27

FJM _____ 7/14/94 _____

Signature Date

Weimer Copper Mine — DU 497

The mine site and Skull Canyon are incredibly dry. There is no evidence of acid mine drainage.

Safety would be the biggest concern at this site as there are a number of open workings (photograph 517288-27). However, the mine is very difficult to reach, and anyone who makes it up Skull Canyon would probably survive the mine site. This is private ground. I would suggest that the USFS talk to the owners about closing the adits, if they have no plans to work the mine.

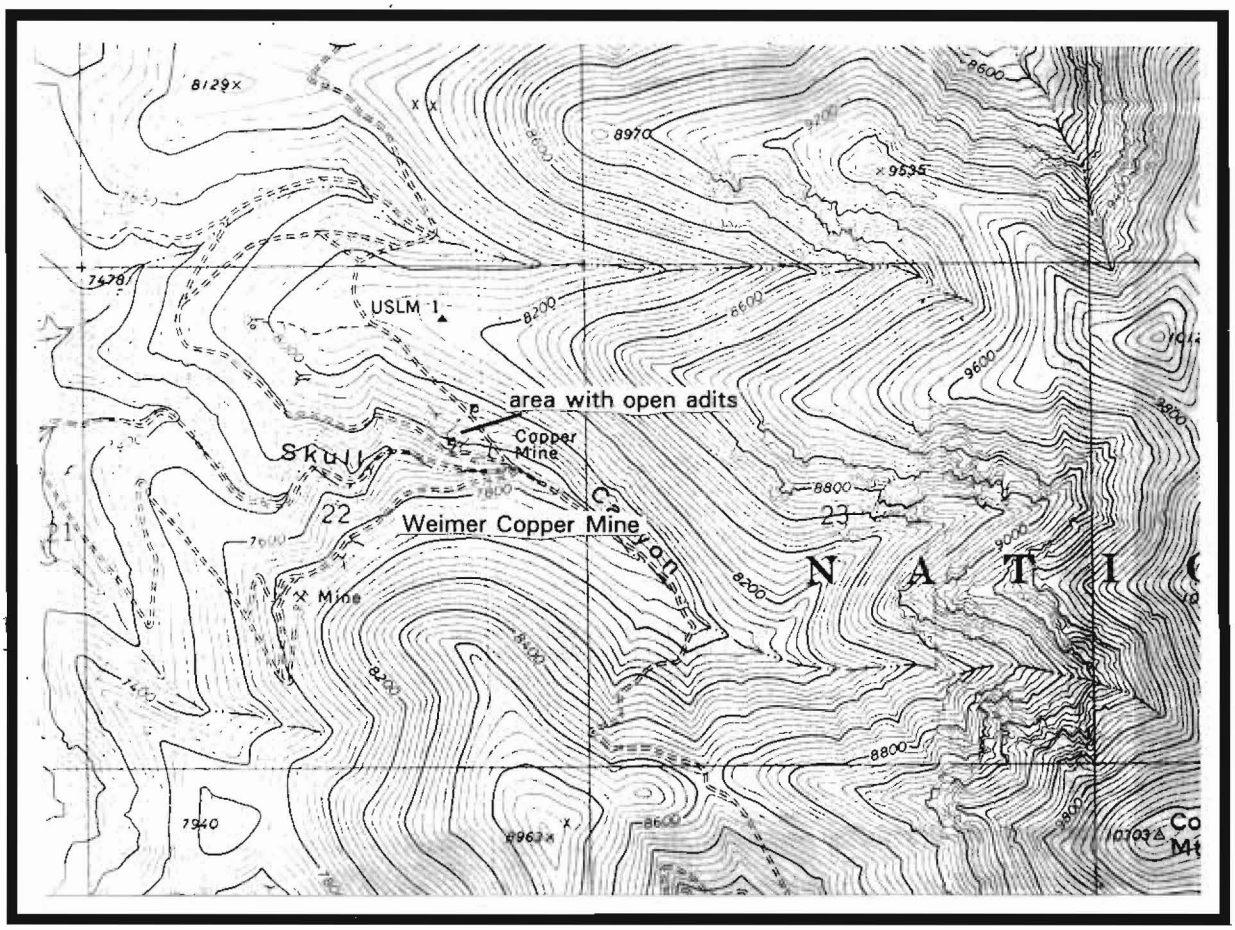

Figure 9Aii-8. Topographic map of the Weimer Copper Mine and vicinity (U.S. Geological Survey Copper Mountain 7.5-minute topographic map).

Figure 9Aii-9. Open adit at the Weimer Copper Mine (roll 517288, frame #27).