

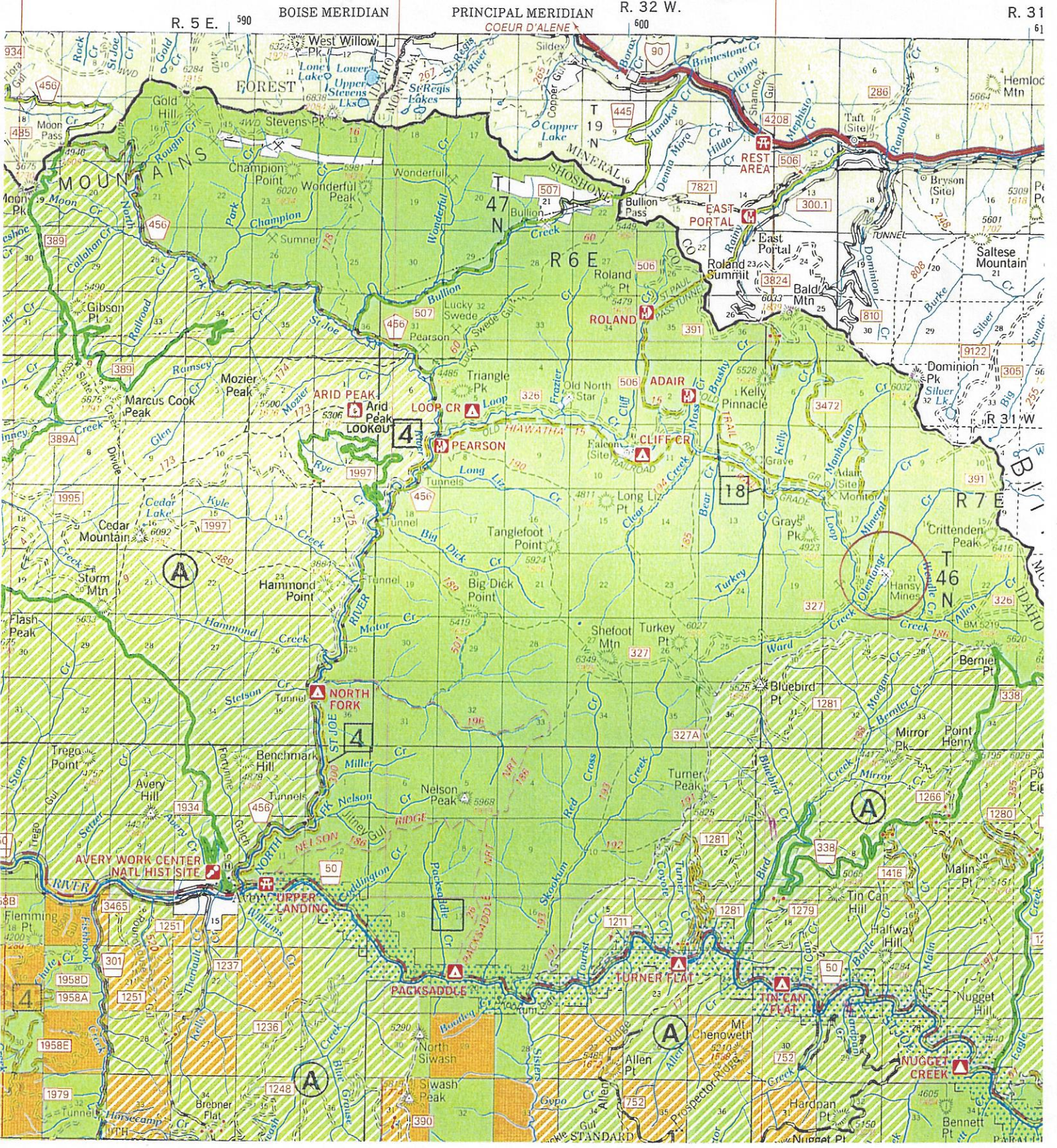
Attachment C

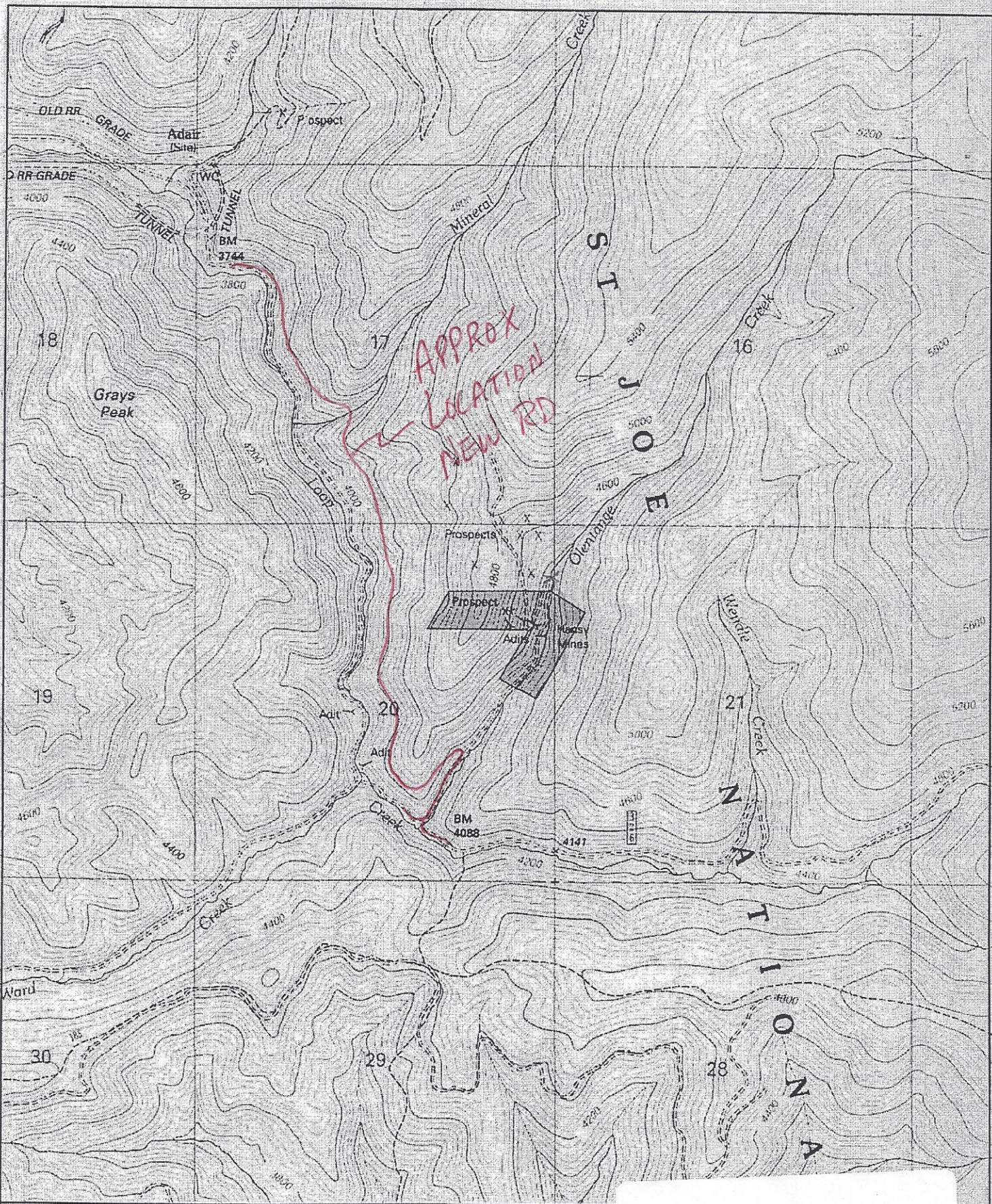
Vicinity Map
Mineral Cr Rds. 3472 & 3472B
Sec. 20, T.46 N., R.7 E., B.M.

° 52' 30"

115° 45' 00"

115° 37' 30"





Name: ADAIR
 Date: 8/21/2003
 Scale: 1 inch equals 1818 feet

Location: 047° 19'
 Caption: 46n 7e 20

TOPOGRAPHY MAP

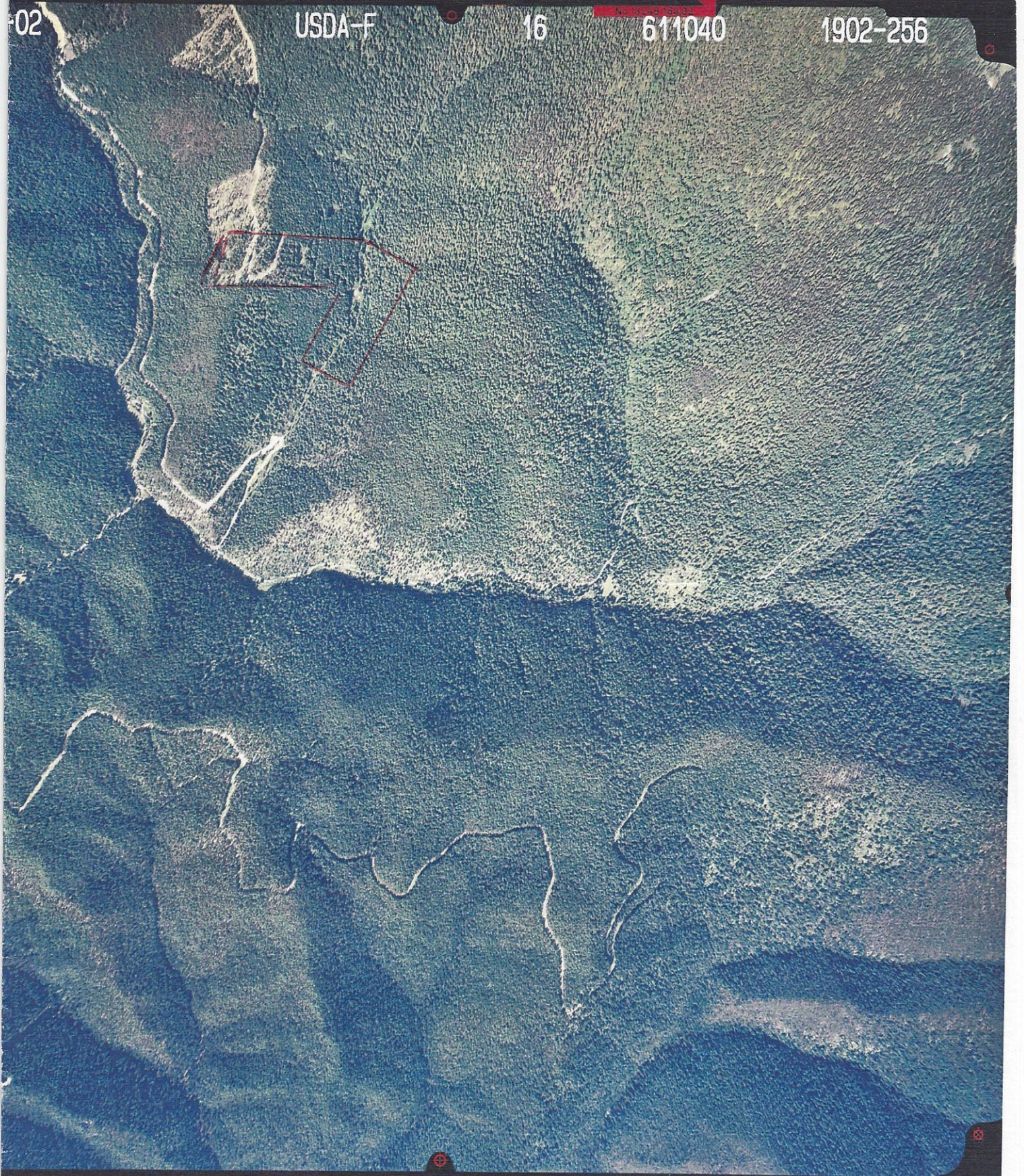
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3.14 HANSY MINE (Site No. WL-516)

Alternate name—Hansey Mine.

3.14.1 Site Location and Access (Figure 2.1-1b)

The Hansy Mine is about 1 mile up Olentange Creek from Loop Creek. The main workings are in the NE¼, section 20, T. 46 N., R. 7 E., on the Adair 7.5-minute quadrangle (Figure 3.14-1). These are shown by adit and prospect symbols on the topographic map. In addition, several prospect symbols are shown on the topographic map in the SE¼, section 17, T. 46 N., R. 7 E. Access to the property is on Forest Service Road 326 to Olentange Creek, where a road follows the west side of the creek northward about ½ mile to the lowermost adit. Although not shown on the National Forest map, this property is on a block of patented claims that may be owned by one of the timber companies. The claims are surrounded by Forest Service land.

3.14.2 Geologic Features (Figure 2.2-1b)

The Hansy Mine is in the black argillite and slightly dolomitic, fine-grained quartzite of the middle Wallace Formation (Harrison and others, 1986). The deposit consists of sparsely distributed copper minerals in gash fractures that are probably associated with shearing caused by the Placer Creek fault, which is about a mile north of the property (Reed, 1943).

3.14.3 Site History

Hansy Copper and Gold Mines, Inc, was organized in January 1942. By mid-July, the company owned two patented and sixteen unpatented claims. Total development on the property was about 100 feet of workings, 60 feet of which had been driven since April. In addition, the company was building roads, a bridge, a cookhouse, and other buildings. A small amount of copper ore was shipped, either during 1941 (USBM) or during 1943; according to Reed (1943), the ore was a 5-ton, hand-sorted test shipment. In 1943, the workings included a 110-foot adit with a 50-foot, two-compartment winze that started about 40 feet from the portal, a tunnel that was being driven from near the road to intersect the structure at depth, and an old tunnel or cut midway between the other two adits (Reed, 1943). By 1945, the property had 418 feet of workings, and work on the lower tunnel was being financed by an R.F.C. (Reconstruction Finance Corporation) loan. In 1946, the No. 1 tunnel was 138 feet long and the No. 2 tunnel was 400 feet long. Company manager Sam Petersen noted that the Tacoma smelter "gave very satisfactory returns on ore samples," but did not provide details. Work continued the following year, when the company reported a total of 732 feet of development on the property. However, in 1948, the company had hired a "geologist and engineer" to study the property, and operations had been suspended awaiting the results of this work. Minor amounts of work were reported in some (but not all) of the next fifteen years, but the company probably did little more than assessment work. A small amount of copper ore was shipped from the mine in 1960.

Sims (1998, Appendix B) includes a 1983 interview with Sam Peterson, the owner of the Hansy Mine. Mr. Peterson describes various aspects of life and mining activity in the Adair area, including some sketchy information about the Hansy property.

3.14.4 Environmental Conditions

3.14.4.1 Site Features

The Hansy Mine was visited by John Kauffman on July 8-9, 1998. A video segment describing the property is on the Avery and St. Maries Districts Videotape (Tape 1, index 01:22:02-01:42:34). Documenting photographs are Roll K2, frames 7-23.

Six adits and five prospect cuts were described at the Hansy property (Figure 3.14-2). Five additional prospects shown on the topographic map were not visited. The adits and prospect cuts discussed below are numbered in the order in which they were examined.

Adit 1, the first opening encountered on the road, was driven N. 50° W. into the hill. It has a timbered portal (Figure 3.14-3) and a gate about 10-12 feet beyond the opening (Figure 3.14-4). Water seeps from the adit at about 2 gallons per minute, flows across the dump surface and down the face, and enters Olentangee Creek. The waste dump is roughly triangular in shape (Figure 3.14-5) and measures about 100 feet long, 60 feet wide, and 20 feet thick. The access road crosses the surface of the dump about 30 feet east of the portal. Olentangee Creek flows along the toe of the dump (Figure 3.14-6) and, in places, is actively eroding it. A log ore bin is just above creek level on the southern face of the dump (Figure 3.14-7). The disturbed area at Adit 1 is about 0.5 acre.

The road continues north past Adit 1 about ¼ mile, then switches back up the hill. Halfway up the straight section, a short spur road leads to Adit 2, which is about 50 feet directly uphill from Adit 1. Adit 2 is caved but has a few portal timbers still standing (Figure 3.14-8). The waste dump is about 30 feet long, 25 feet wide, and extends about 50 feet down the slope to the road at Adit 1. Several large trees, up to 16 inches in diameter, are growing on the dump (Figure 3.14-9). Ore car rails protrude from the end of the dump. The disturbed area is less than 0.25 acre.

Just before the next switchback, the road passes a slump on the slope (Figure 3.14-10) that has buried Adit 3. This location is slightly uphill from, and north of, Adit 2. No timbers or other evidence of the adit were found, but a small dump extends down to the spur road that leads to Adit 2. The dump is estimated at about 30 feet long, 20 feet wide, and 30 feet down the face. However, the slope here is fairly steep and the material forms only a thin veneer. Prospect cut 1 is directly above Adit 3 at the end of a short spur road off the main road. The trench was cut along contour and is about 75 feet long and 15 feet wide. The disturbed area for these workings is less than 0.5 acre.

Adit 4 is also at the end of a short spur road off the main road (Figure 3.14-11). It is uphill from, and southwest of, Adit 3 and prospect cut 1. The timbered slope above Adit 4 has recently been logged in strips, probably by high-line from above (a logging road was later found on the west side of the ridge between Olentangee Creek and Mineral Creek). Adit 4 is nearly caved, with rock debris filling most of the adit (Figure 3.14-12), but it has an eye-shaped opening 4 feet long by 2

feet high (Figure 3.14-13). Rails extend from the adit to beyond the end of the dump. Beneath the rails is the remnant of a wooden trestle. The waste dump is 75 feet long, 30 feet wide, and about 50 feet down the face. A stack of railroad ties and some pieces of 4-inch PVC drain pipe are piled on the dump surface (Figure 3.14-14). The disturbed area at Adit 4 covers about 0.25 acre.

Adit 5 is slightly above and to the north of Adit 4. It is also at the end of a spur road off the main access road. This open adit (Figure 3.14-15) has a few collapsed timbers visible inside, and pipes of both 1-inch and 2-inch diameters extend from the adit (Figure 3.14-16). The pipes bend to the north and follow the spur road for a short distance. The waste dump is 40 feet long, 20 feet wide, and 25 feet down the face. It extends downslope to the spur road to Adit 4. Two rusted 55-gallon drums are lying on the dump surface (Figure 3.14-17). The disturbed area at Adit 5 covers about 0.25 acre.

Prospect cut 2 is about 40 feet above Adit 5. This is a large bulldozer cut along contour (Figure 3.14-18) that has exposed a limonitic outcrop. The cut is 180-200 feet long and 30 feet wide, tapering on both ends. A few fir and spruce saplings are growing on the surface of the cut (Figure 3.14-19). Behind the limonitic outcrop on the north side are some collapsed timbers (Figure 3.14-20) and a narrow opening that appears to be a decline, herein designated as Adit 6. If there was a waste dump at this site, it has been completely reworked by the bulldozer. The disturbed area covers about 0.5 acre.

Prospect cuts 3, 4, and 5 are all east of the main road that leads north-northwest up the slope from Adit 3. Cut 3, near the ridge top, is about 100 feet long, 8 feet wide, and 10 feet deep. The sides and floor are brush-covered. Numerous hand-dug, shallow pits are located in the timber off the north end of the trench. Cut 4 is roughly 300 feet southeast of cut 3 along an overgrown spur road. Cut 5, about 600 feet south of cut 4, is a large excavation. From below, the material pushed out of the cut resembles a waste dump. However, no adit was found, and if one was present, it has been covered or destroyed by the bulldozer work. As with the previous two cuts, the surface of cut 5 is covered with saplings and brush (Figure 3.14-21). The disturbed area at these three cuts covers roughly 1.0 acre.

3.14.4.2 Sample Locations

3.14.4.2.1 Solid Samples

A waste dump sample (K7089809) was collected from the oxidized material of Adit 1 dump. A stream sediment sample (K7099802) was collected from Olentangee Creek just south of the switchback on the new portion of Forest Service Road 326 about ¼ mile below Adit 1.

Sample No	Location	Analyzed (Yes/No)
K7089809	Hansy Mine, Adit 1 dump	Yes
K7099802	Hansy Mine, stream sediment from Olentange Creek	Yes

3.14.4.2.2 Water Samples

A water sample (K7089808) was collected in front of the portal to Adit 1. An upstream sample (K7099801) was collected about ¼ mile above Adit 1 on Olentange Creek, just north of the switchback on the access road. A downstream sample (K7089810) was taken about 700 feet south of Adit 1 on Olentange Creek along the access road.

Sample No	Location	Specific Conductivity (μ s)	Temperature ($^{\circ}$ F)	pH	Flow (gpm)	Analyzed (Yes/No)
K7089808	Hansy Mine, Adit 1	120	43	8.0	2	Yes
K7089810	Hansy Mine, downstream	49	50	8.06	---	Yes
K7099801	Hansy Mine, upstream	41	47	8.2	5 ft. wide, 0.5-1 ft. deep	Yes

3.14.4.2.3 Analytical Results

Solid Samples (Tables 2.5-3 and 2.5-4)

Sample K7089809 from the dump for Adit 1 exceeds background and environmental levels for arsenic, cadmium, copper, iron, nickel, and lead in the element screen. The stream sediment sample from Olentange Creek (K7099802) exceeds background and environmental levels for arsenic, cadmium, and copper in the element screen. In the TCLP for metals screen, no elements of interest are leaching from either sample.

Water Samples (Tables 2.5-1 and 2.5-2)

In the dissolved metals screen, the water sample from Adit 1 (K7089808) equals or exceeds both Aquatic Life standards for cadmium, the upstream (K7099801) and the downstream samples (K7089810) equal or exceed all standards for cadmium, and all three samples are within the range of the Aquatic Life Chronic standard for copper. In the total recoverable metals screen, all three samples exceed all standards for cadmium.

3.14.5 Structures

The ore bin near the creek at Adit 1 is the only structure that was found at this site.

3.14.6 Safety

The open adits are the only potential safety hazard identified.



Figure 3.14-1. Location map of the Handy Mine and the Sheehy Creek, Idaho (U.S. Geological Survey Adit No. 2, 1900).



Figure 3.14-2. Sketch map of the Handy Mine workings examined for this study.

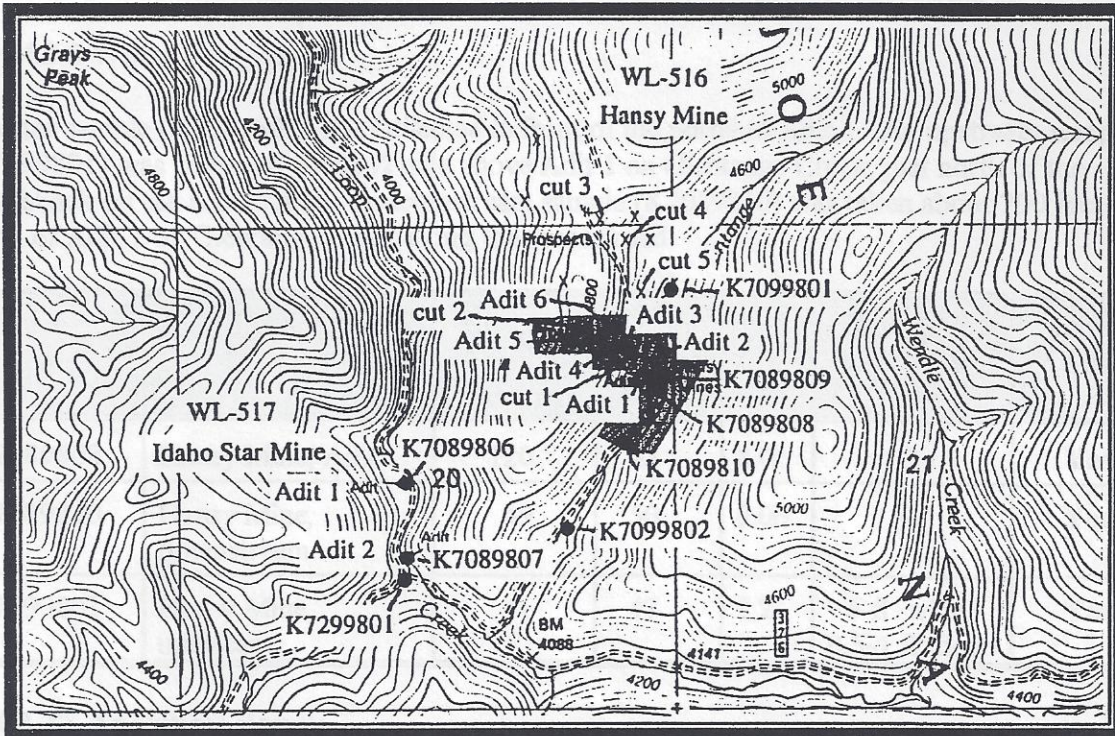


Figure 3.14-1. Location map of the Hansy Mine, Shoshone County, Idaho (U.S. Geological Survey Adair 7.5-minute topographic map).

Sample K7089809 from the dump for Adit 1 exceeds background and environmental levels for arsenic, cadmium, copper, iron, nickel, and lead in the element screen. The stream sediment sample from Dentange Creek (K7099802) exceeds background and environmental levels for arsenic, cadmium, and copper in the element screen. In the TCLP for metals screen, no elements of interest are leaching from either sample.

Water Samples (Tables 2.5-1 and 2.5-2)

In the dissolved metals screen, the water sample from Adit 1 (K7089806) equals or exceeds both Aquatic Life standards for cadmium, the upstream (K7099801) and the downstream samples (K7089810) equal or exceed all standards for cadmium, and all three samples are within the range of the Aquatic Life Chronic standard for copper. In the total recoverable metals screen, all three samples exceed all standards for cadmium.

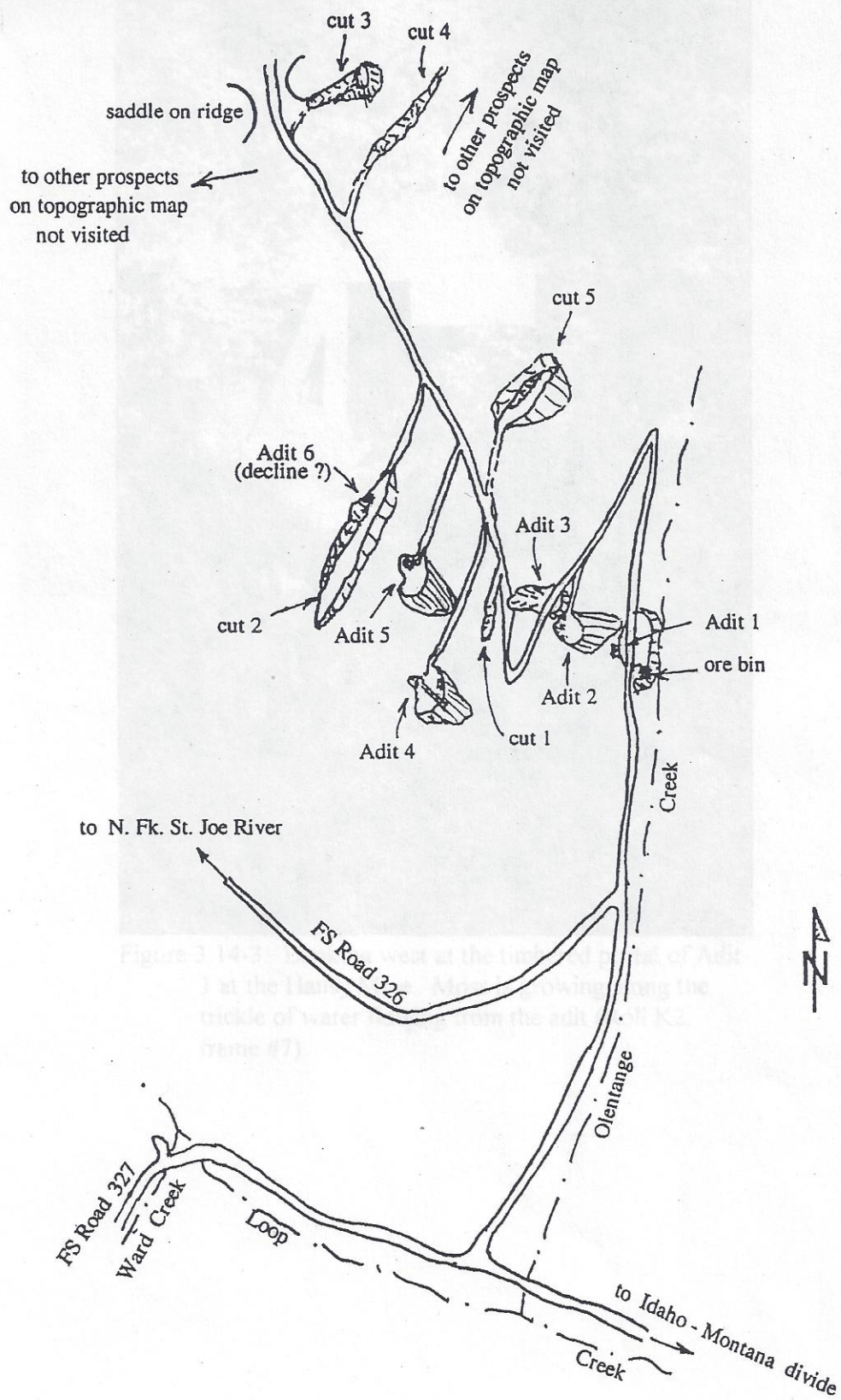


Figure 3.14-2. Sketch map of the Hansy Mine workings examined for this study.

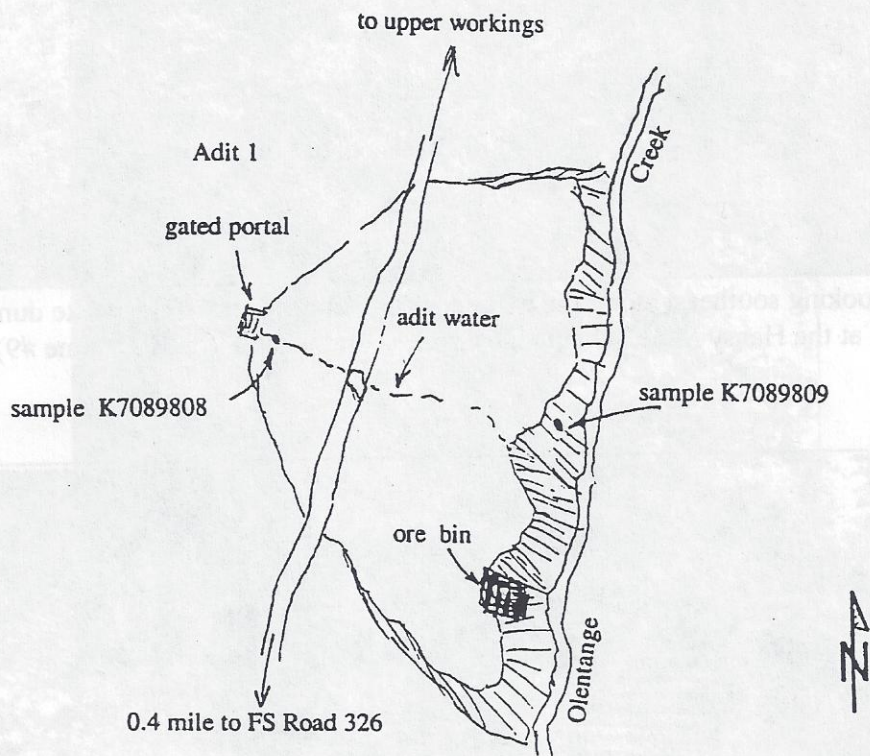


Figure 3.14-5. Sketch map of Adit 1 at the Hansy Mine.