

# Lode Mines and Prospects in the Bagby Hot Springs 7.5' Quadrangle, North Santiam Mining District, Marion and Clackamas Counties, Oregon – Topographic Base

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Lode Mines and Prospects in the North Santiam Mining District,  
Marion and Clackamas Counties, Oregon

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### PLATE 3 of 8

#### NOTICE

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#### DISCUSSION

The purpose of this map is to show the locations of 36 abandoned mine land (AML) features on a digital raster graphic (topographic) base of the Bagby Hot Springs 7.5' quadrangle, Marion and Clackamas counties, Oregon (Figures 1 and 2). A companion lidar map (Plate 4) is used to display the locations of the same AML features.

These plates are part of an exchange-of-technology project related to how lidar-derived terrain data can be confidently and practically applied to the inventory of mine openings and other features associated with abandoned mine land. Using lidar to inventory AML features has a large potential for cost savings as a tool to aid field surveys. Lidar cannot completely replace field inspection of AML features, but the technology does provide a screening tool that will makes field surveys more accurate and efficient.

For this project, the North Santiam Mining District (NSMD) in the Cascade Range of Oregon was used as an example locale. This district is one of five gold/base metal mining districts that occur throughout the Cascade Range from the Columbia River to the California line, and the only one with full lidar coverage. The NSMD lies near the northeast corner of Marion County (Figure 1), within the Willamette National Forest, with dimensions roughly 17 km (~11 mi) long from east to west, and as much as 8 km (5 mi) at its widest (Figure 2). The primary access route is via the North Fork Road to Forest Road 2209. As can be seen in Figure 2, the Little North Santiam River flows westward through a fairly precipitous valley, the course of which serves to bisect the district and as the boundary between the Opal Creek Wilderness to the north and the Opal Creek Scenic Recreation Area to the south.

Topography in the district is characterized by rugged mountains that rise 914 to 1,524 m (3,000 to 5,000 ft) above sea level and by steeply incised valleys. Most of the area is densely forested with Douglas fir, Pacific silver fir, and Western Hemlock plant associations. Only rock cliffs are barren of timber.

After five periods of known mining in the NSMD at least 226 AML features (by this study's count) in the form of adits and open cuts/exploration pits, waste rock areas, etc. remain. Table 1 lists AMLs indexed to map number and name. The first mineral claims were made in the 1880s immediately west of this map area, near the confluence of Gold Creek and the North Santiam River. Placer gold was first discovered there and an ensuing rush was short-lived. However, early prospectors also found well-defined fissure veins that carried copper with zinc and lead. By 1903, most claims for these minerals had been located. When Callahan and Buddington (1938) and Leever (1941) visited the district, the mines were inactive. It was not until 1977 that mining in the district resumed when the Shiny Rock Mining Corporation reopened the Ruth Mine and several other claims were developed. By 1992, all mining activity in the district ceased with the closing of the Ruth Mine.

The Oregon Department of Geology and Mineral Industries (DOGAMI) compiled the important mines in the district in Bulletin 14-D (Oregon Department of Geology and Mineral Industries, 1951) and Bulletin 61 (Brooks and Ramp, 1968). The work of Olson (1978), Pollock and Cummings (1985, 1986), Cummings and Pollock (1984), and Ma and others (2009) put the district in its regional context with Cascade Range stratigraphy and structure. Cox (1985) and George (1985) provided cultural property inventories and historical surveys of the district. Niewendorp and Geitgey (2010) compiled those sites into Mineral Information Layer for Oregon, release 2.

The area of this project covers a portion of the Bagby Hot Springs 7.5' quadrangle and it extends into three other quadrangles: Elkhorn, Battle Ax, and Rooster Rock (Figure 2; also see Plates 1, 2, and 4-8).

#### REFERENCES

- Brooks, H. C., and Ramp, L., 1968, Gold and silver in Oregon: Oregon Department of Geology and Mineral Industries Bulletin 61, 357 p.
- Burns, W. J., and Madin, I. P., 2009, Protocol for inventory mapping of landslide deposits from light detection and ranging (lidar) imagery: Oregon Department of Geology and Mineral Industries Special Paper 42, 42 p.
- Callahan, E., and Buddington, A. F., 1938, Metalliferous mineral deposits of the Cascade Range in Oregon: U.S. Geological Survey Bulletin 893, 141 p.
- Cox, J. B., 1985, Little North Santiam Mining District: cultural resources inventory report: Detroit, Oreg., U.S. Dept. of Agriculture, Forest Service, Willamette National Forest, 34 p.
- Cummings, M. L., and Pollock, J. M., 1984, Field guide to the northern Cascade Range from Zigzag to Jawbone Flats, Oregon, with overviews of Pop Creek, Sisi Butte, and Pinhead Buttes: Portland, Oreg., Portland State University, Department of Geology (prepared for Penrose Conference: Geochemistry of the environment near a high-level nuclear waste repository), 69 p.
- George, A. J., 1985, The Santiam mining district of the Oregon Cascades: a cultural property inventory and historical survey: Lyons, Oreg., Shiny Rock Mining Corporation, 336 p.
- Leever, W. H., 1941, Origin of the mineral deposits of the North Santiam District, Oregon: Corvallis, Oreg., Oregon State College master's thesis, 135 p.
- Ma, Lina, Madin, I. P., Olson, K. V., Watzig, R. J., Wells, R. E., Niemi, A. R., and Priest, G. R., 2009, Oregon geologic data compilation (OGDC), release 5 (statewide): Oregon Department of Geology and Mineral Industries Digital Data Series.
- Niewendorp, C. A., and Geitgey, R. P., 2010, Mineral information layer for Oregon (MILO), release 2: Oregon Department of Geology and Mineral Industries Digital Data Series.
- Olson, J. P., 1978, Geology and mineralization of the North Santiam mining district, Marion County, Oregon: Corvallis, Oreg., Oregon State University master's thesis, 135 p.
- Oregon Department of Geology and Mineral Industries, 1951, Oregon metal mines handbook, northwestern Oregon: Oregon Department of Geology and Mineral Industries Bulletin 14-D, 166 p.
- Pollock, M. J., and Cummings, M. L., 1985, North Santiam mining area, Western Cascades—relations between alteration and volcanic stratigraphy: Part I, Discussion: Oregon Geology, vol. 47, no. 12, p. 139-145.
- Pollock, M. J., and Cummings, M. L., 1986, North Santiam mining area, Western Cascades—relations between alteration and volcanic stratigraphy: Part II, field trip guide: Oregon Geology, vol. 48, no. 1, p. 6-8.



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY



U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

BAGBY HOT SPRINGS QUADRANGLE  
OREGON  
7.5-MINUTE SERIES (TOPOGRAPHIC)

#### MAP SYMBOL

- 1 (index number) ● Location of AML feature; see Table 1

**Warning: Respect the rights of private property owners. Understand that recreation in or around inactive mine sites is extremely dangerous and can result in serious injury or death. Stay out and stay alive!**

Table 1. Index to map numbers and AML names.

1 Eureka 22 (Upper adit)	19 Eureka 8 (prospect)
2 Eureka 1 (b)	20 Eureka 8
3 Billy Boy	21 Bimetallic & Goldbug
4 Eureka 1 (a)	22 Eureka 7 (north)
5 Gold Creek M&M (lower tunnel)	23 Eureka 6 (east)
6 Gold Creek M&M (upper tunnel)	24 Eureka 6 (west)
7 Peekaboo	25 Eureka 12 (d)
8 Eureka 2	26 Blende Oro (extension)
9 Eureka 3	27 Blende Oro
10 Eureka 4 (c)	28 Blende Oro (upper adit)
11 Eureka 4 (a)	29 Eureka 12 (a)
12 Eureka 4 (b)	30 Eureka 12 (b)
13 Eureka 4 (d)	31 Eureka 13
14 Eureka 4 (e)	32 Eureka 12 (c)
15 08-05-18c	33 Eureka 17 (south)
16 Eureka 14	34 Eureka 17 (north)
17 Eureka 7 (west)	35 Eureka 17 (prospect)
18 Eureka 7 (east)	36 08-05-7a

Names of AML features are based on a claim map by the Shiny Rock Mining Corp. (DOGAMI archives).

Figure 1. Location map of the North Santiam Mining District.

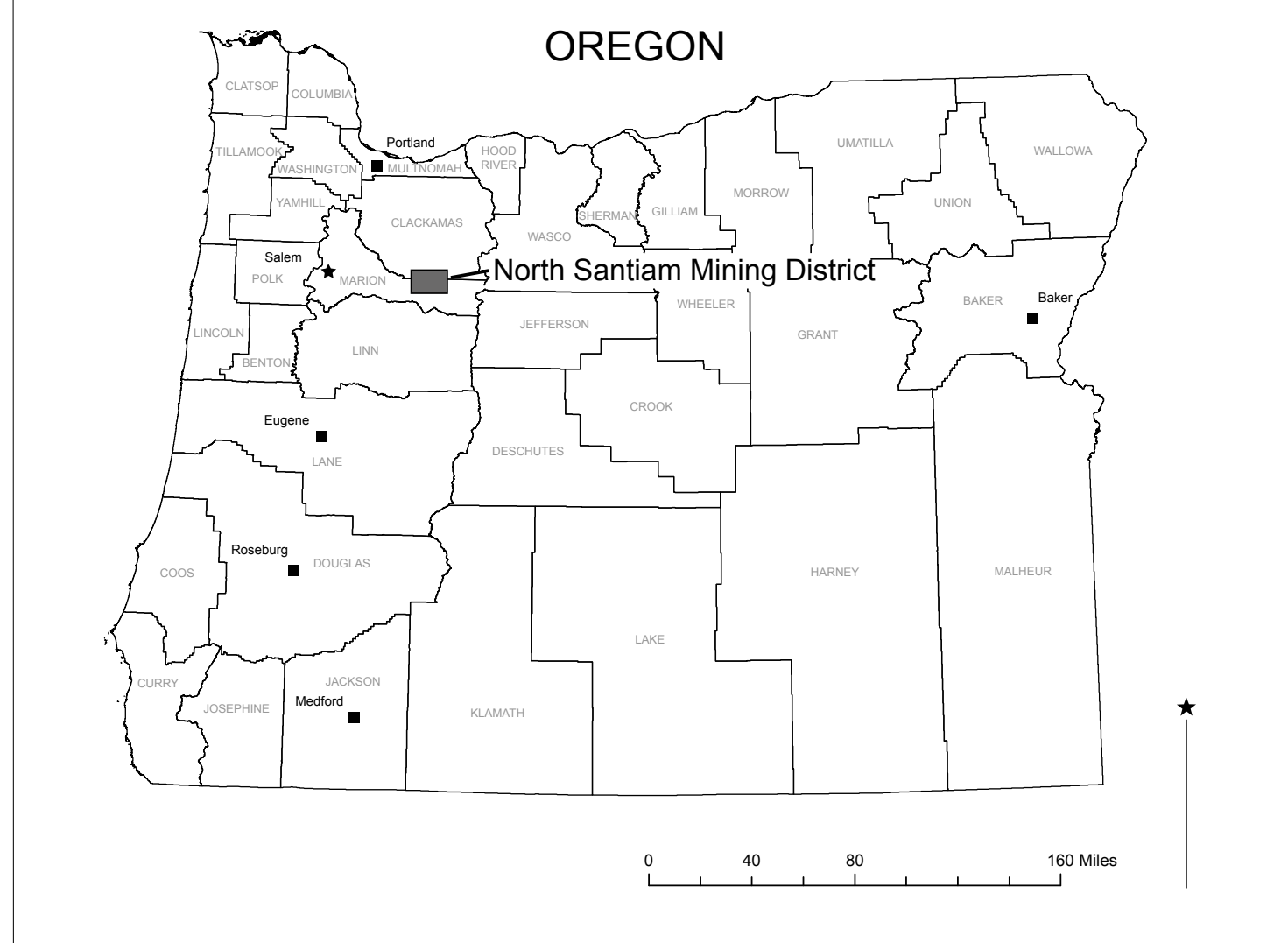
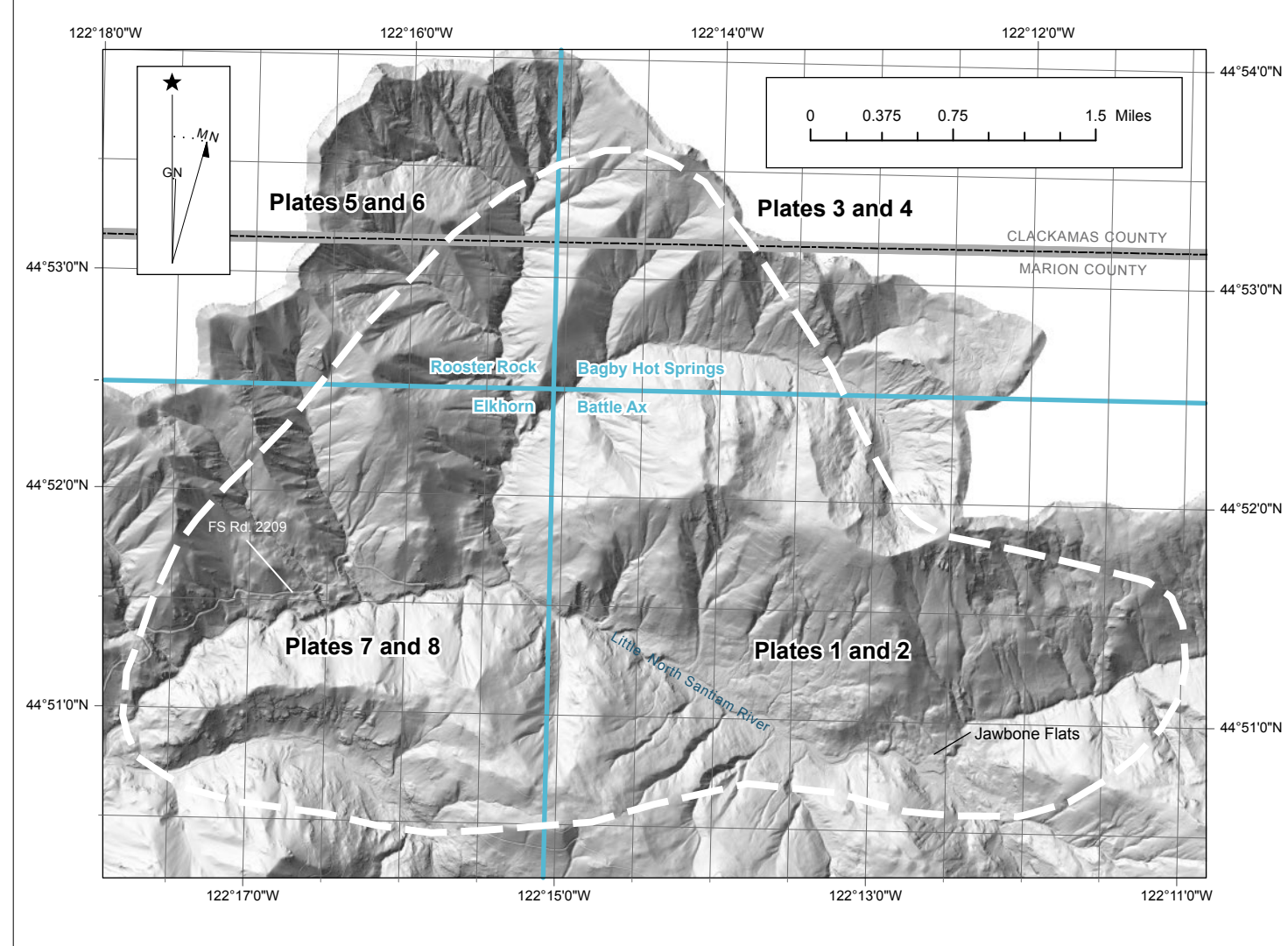


Figure 2. Hillshade image of the North Santiam Mining District (NSMD), Marion and Clackamas counties, Oregon. White dashed line represents the portion of the NSMD that contains the majority of abandoned mine land sites; blue lines are quadrangle boundaries.



Produced by the United States Geological Survey 1985

Revisions within and adjacent to National Forest lands

by USFS Forest Service 1997

Topography compiled 1982. Planimetry derived from imagery taken 1995 and

other sources. Public Land Survey System and survey control current as of 1997

North American Datum of 1927 (NAD 27). Projection and 10 000-foot ticks:

Oregon coordinate system, north zone (Lambert conformal conic)

Blue 1000-meter Universal Transverse Mercator ticks, zone 10

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks

The values of the ticks between NAD 27 and NAD 83 for 7.5-minute

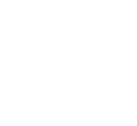
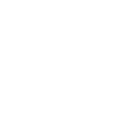
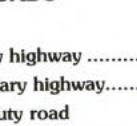
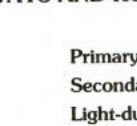
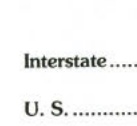
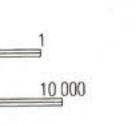
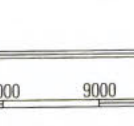
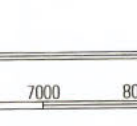
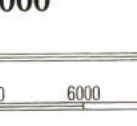
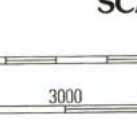
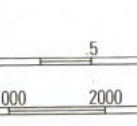
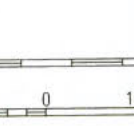
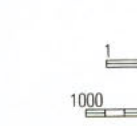
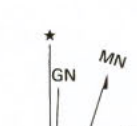
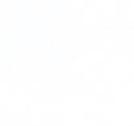
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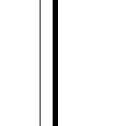
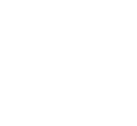
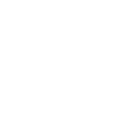
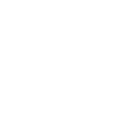
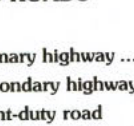
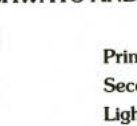
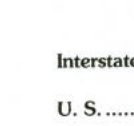
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



This inventory of mines and prospects by Clark A. Niewendorp,  
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Field work conducted in 2014



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