

2015

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

Compiled by Clark A. Niewendorp and Joseph W. Ghiorso

This project was funded in part by the U.S. Forest Service (FS), U.S. Department of Agriculture, under FS award number 12-CS-11061800-041, Mod #1.

PLATE 5 of 8

NOTICE

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. This publication cannot substitute for site-specific investigations by qualified practitioners. Site-specific data may give results that differ from the results shown in the publication. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. government.

DISCUSSION

The purpose of this map is to show the locations of 10 abandoned mine land (AML) features on a digital raster graphic (topographic) base of the Rooster Rock 7.5' quadrangle, Marion and Clackamas counties, Oregon (Figures 1 and 2). A companion lidar map (Plate 6) 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-belt base metal mining districts that occur throughout the Cascade Range from the Columbia River to the California line, and the only one that is still covered by a large, intact forest. The NSMD is located in the Willamette National Forest, 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 form 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 just 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 1860s and the first mining was in the 1870s. The first mine was the Rhyolite Mine, which was owned by 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, the Rhyolite Mine was the most productive in the district. The Rhyolite Mine was owned by 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 mines 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 Gorge (1985) provided cultural property inventories and historical surveys of the district. Niwendorp and Getzkey (2010) compiled those sites into Mineral Information Layer for Oregon, release 2.

The area of this project covers a portion of the Rooster Rock 7.5' quadrangle and extends into three other quadrangles: Battle Ax, Bagby Hot Springs, and Elkhorn (Figure 2; also see Plates 1–4 and 6–8).

REFERENCES

Brooks, H. C., and Ramp, L. B., 1968. Gold and silver in Oregon: Oregon Department of Geology and Mineral Industries Bulletin 61, 337 p.

Callaghan, E., and Buddington, A. F., 1938. Metalliferous mineral deposits of the Cascade Range in Oregon. U.S. Geological Survey Bulletin 899, 141 p.

Cox, J. W., 1985. Little North-South Mining District: a cultural resources inventory report: Detroit, Oregon, 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 Popo Creek, Siski Butte, and Pinhead Butte. Oregon Department of Geology and Mineral Industries, Division of Geology (prepared for Penobscot Conference: Geochronology of the environment near a high-level nuclear waste repository), 59 p.

George, A. J., 1985. The Santiam mining district of the Oregon Cascades: a cultural property inventory and historical survey. Lyons, Oregon, Shiny Rock Mining Corporation, 336 p.

Leever, W. H., 1941. Origin of the mineral deposits of the North Santiam District, Oregon: Corvallis, Oregon: Oregon State College, 125 p.

Ma, Lina, Madin, I. P., Olson, K. V., Watzig, R. J., Wells, R. E., Niem, 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.

Niewondor, C. A., and Getzky, R. P., 2010. Mineral information layer for Oregon (MILIO), 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, Oregon, 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, 189 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. 3–8.



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 Five Spot (discovery)	6 Upper Granger
2 Five Spot crosscut	7 08-05-18a
3 Santiam 11 claim	8 08-05-18b
4 Santiam 11 (c)	9 08-05-07c
5 Santiam 11 (d)	10 08-05-07b

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.

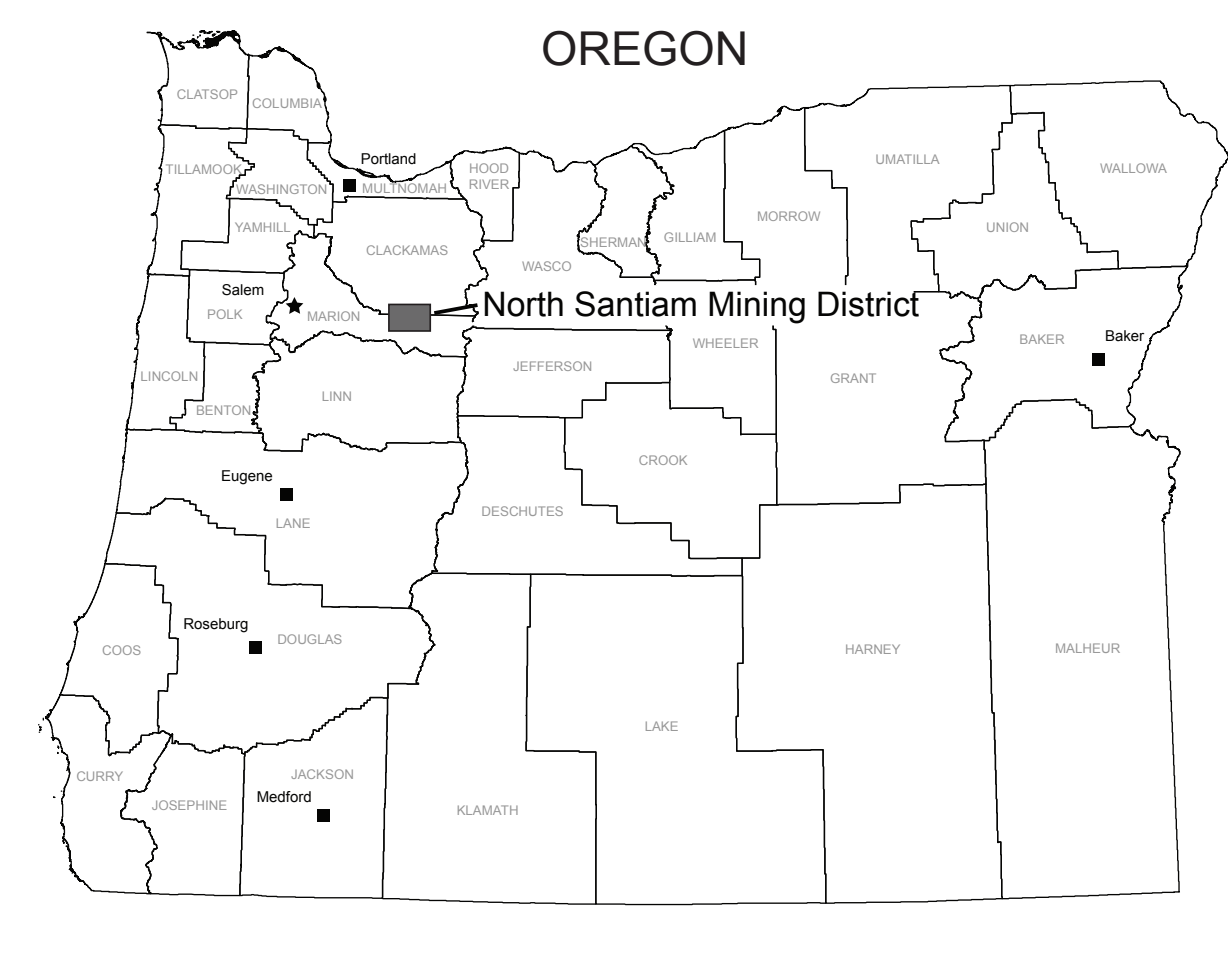
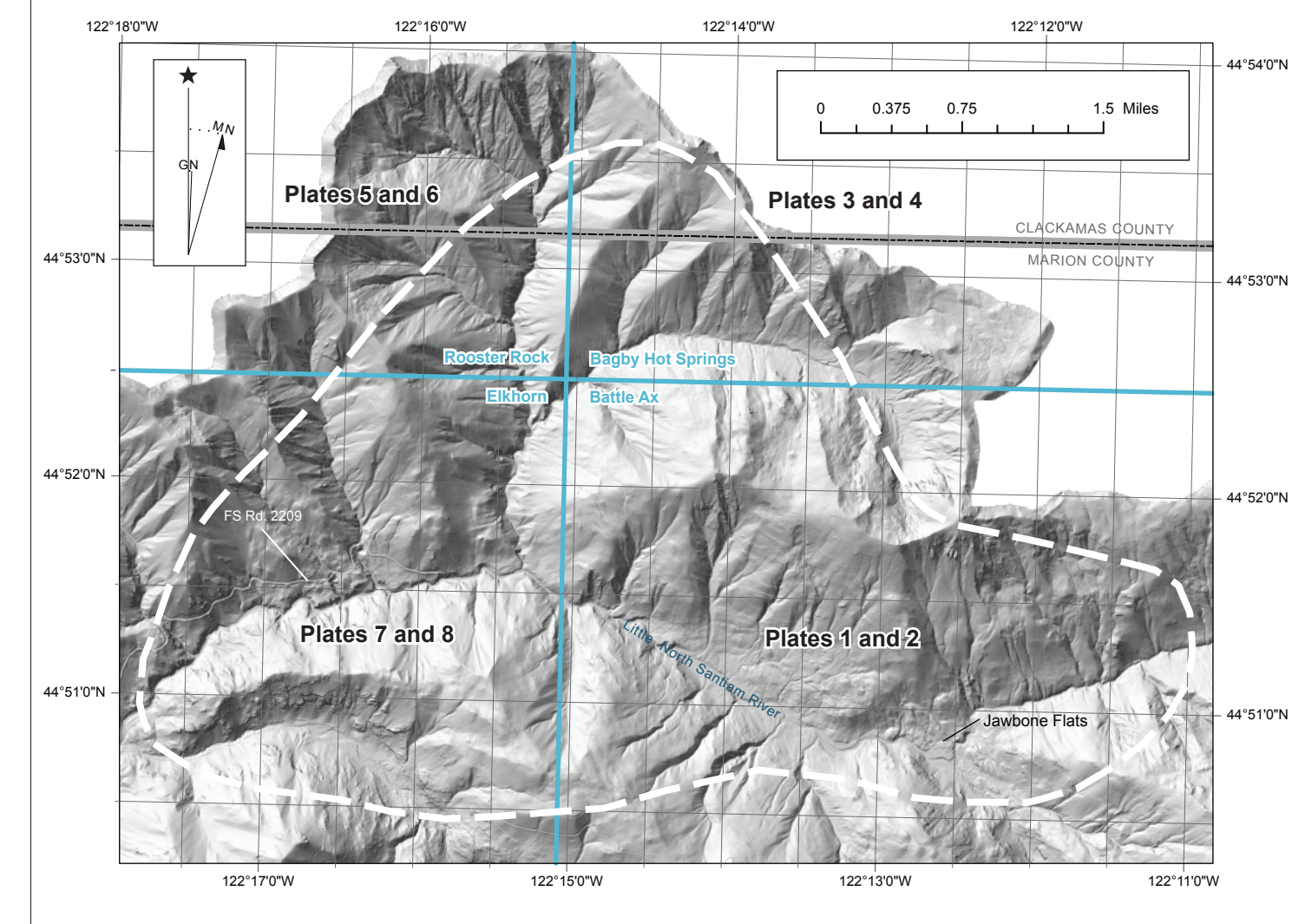


Figure 2. Hillshade image of the North Santiam Mining District (NSMD), Marion and Clackamas counties, Oregon. White dashed line represents the portion of the NSMD that contains the majority of abandoned mine land sites; blue lines are quadrangle boundaries.



Produced by the United States Geological Survey 1985
Revision within and adjacent to National Forest Service lands
by USDA 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 is 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 shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

 Non-National Forest System lands within the National Forest
Inholdings may exist in other National or State reservations

This map is not a legal land line or ownership document. Public lands are subject to change and leasing, and may have access restrictions; check with local offices. Obtain permission before entering private lands

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

OREGON








QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Fernwood
2 Soosop Peak
3 Wanderers
4 Gwaley Creek
5 Bagley Hot
6 Mill City No
7 Elkhorn
8 Seattle Ax

ADJOINING 7.5' QUADRANGLES

Interstate	5
U. S.	201
State	79
County	6
National Forest, suitable for passenger cars	150 16
National Forest, suitable for high clearance vehicles	11 13

Primary highway	
Secondary highway	
Light-duty road	
Composition: Unspecified	
Paved	
Gravel	
Dirt	
Unimproved; 4 wheel drive	
Trail	
Gate; Barrier	

BOOSTER ROCK OR

ROOSTER ROCK, OR
1997
NIMA 1573 IV NE - SERIES V892

Base map: Rooster Rock 7.5' quadrangle map, U.S. Geological Survey, 1994; downloaded from <http://store.usgs.gov/>. Map Locator and Downloader page.
Software: Esri ArcGIS® 10.1 and Adobe® Illustrator® CS6
Cartography: Clark A. Niewendorp

This inventory of mines and prospects by Clark A. Niewendorp,
Oregon Department of Geology and Mineral Industries,
and Joseph W. Ghiorsio, U.S. Forest Service
Field work conducted in 2014



For copies of this publication contact:
Nature of the Northwest Information Center
800 NE Oregon Street, Suite 965
Portland, Oregon 97232
telephone (971) 673-2331
<http://www.naturenw.org>