

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

GARDNER CHROME PROSPECT

Curry County
Chetco District

PRELIMINARY REPORT ON CHROMITE OF THE VULCAN PEAK AREA

Nancy Hank Claim

Owner: Howard Gardner, Harbor, Oregon

Location: Near center sec. 10, T. 39 S., R. 11 W.; at 4200 feet elevation on the west side of a hill about 1 mile north of Vulcan Peak.

A Forest Service road which goes by way of the Chetco River, Wilson Prairie, Long Ridge, and the old Red Mountain Trail, ended on the ridge about 3/4 mile northwest of Vulcan Peak; a distance of 35 miles from Brookings.

Work on the Nancy Hank claim consisted of a small discovery pit on the steep hillside which exposed a narrow stringer of coarse-grained disseminated chromite in dunite.

The main joint pattern of the mineralized seam and surrounding peridotite trends north and dips 65° E. A small fault displaces the chromite on the north side of the cut. It runs nearly due east and dips 35° N.

The width of the chromite varies from 6 to 8 inches and lies in a band of dunite about 30 inches wide which roughly parallels the main joint pattern. A sample of selected chromite from this stringer ran 37.00 percent Cr_2O_3 and 11.53 percent Fe (P-13400).

Fourth of July Claim

Owner: Fred Gardner, Harbor, Oregon

Location: NW $\frac{1}{4}$ sec. 10, T. 39 S., R. 11 W., very close to the section line between sec. 10 and 3 (unsurveyed area).

Chromite was discovered here on the Fourth of July, 1952, by Fred Gardner. He located three claims.

Several stringers of highgrade chromite were exposed in place on the east side of the hill nearly 1 $\frac{1}{2}$ miles north of Vulcan Peak by a series of shallow cuts (see map of claim - two sheets).

The country rock is largely sheared serpentine. Light-colored dikes in the serpentine are also sheared. They are apparently a variety of rodingite. Two samples of this rock show a slight variation. The fine-grained pale pink sample from the exposure on the east edge of the mapped

area contains grossularite garnet and wollastonite in approximately 3-2 proportion. Another sample taken from an outcrop nearest the entrance of the largest tunnel is a dull white color and has intermixed serpentine, altered grossularite (prehnite ?) and diopside. The rock is largely altered.

Chemical analysis of these two rocks shows that they are similar to the fine-grained rodingites described by Bell and others (1911).

The rodingite lies roughly parallel to the chromite stringers, e.g., strikes N. 30° to 45° W. and dips 30° to 55° SW. In places the rodingite is somewhat mixed with serpentine in a manner which suggests that it is older. This may be seen in cross section B-B' where the serpentine appears to intrude a joint in the so-called dike nearest the face of the cut.

The width of the chromite stringers varies from a few inches to 4 feet. Two samples taken from the two widest seams of chromite thus far exposed ran 46.12 percent Cr_2O_3 , 13.19 percent Fe; and 52.20 percent Cr_2O_3 , 12.42 percent Fe (P-13401, 13402). The various chromite exposures, ran 50.2 percent Cr_2O_3 with a 2.99 chrome-iron ratio.

A few weeks after this claim was visited, work was started to extend the road from the ridge below Vulcan Peak to the claim, a distance of about 2 miles.

Reference: Geology of the Dun Mountain subdivision, Nelson, New Zealand Geological Survey Bull. 12, 1911, by J. M. Bell and others.

Visited: Sept. 1952

Informants: Fred Gardner, Louis Stoller, Nick Baumgartner.

Report by: LR and DJW.
