CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION
RECORD NO.: M015603
RECORD TYPE: X1C
COUNTRY/ORGANIZATION: USGS
DEPOSIT NO.: 00661 93-78
MAP CODE NO. OF REC.:  

REPORTER
NAME: BRADLEY, R. & WALKER, G. W.
DATE: 79 02
UPDATED: 81 02
BY: FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION
DEPOSIT NAME: CHROME CREEK LATERITE

COUNTRY CODE: US
COUNTRY NAME: UNITED STATES

STATE CODE: OR
STATE NAME: OREGON

COUNTY: CURRY
DRAINAGE AREA: 18013101 CALIFORNIA
PHYSIOGRAPHIC PROV.: 13 KLAMATH MOUNTAINS
LAND CLASSIFICATION: 43

QUAD SCALE: 1: 62500
QUAD NO OR NAME: CHETCO PEAK (1954)

LATITUDE: 42-06-50N
LONGITUDE: 123-54-20W

UTH NORTHING: 4662600
UTH EASTING: 425135
UTH ZONE NO: +10

TWF.: 0405
RANGE.: 010W
SECTION.: 07 08 09 17 18
MERIDIAN.: WILLAMETTE

POSITION FROM NEAREST PROMINENT LOCALITY: NEAR CHROME CREEK

COMMODITY INFORMATION
COMMODITIES PRESENT: Ni CO CR

MAIN COMMOD.: Ni
EXPLORATION AND DEVELOPMENT
STATUS OF EXPLOR. OR DEV. 2

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:
LATERITES

FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA
SIZE OF DEPOSIT ....... SMALL

COMMENTS (DESCRIPTION OF DEPOSIT):
AVERAGE UNWEATHERED ROCK CONTENT OF SOIL IS ESTIMATED AT 45 % BY VOLUME. THE LATERITE COVERS ABOUT 200 ACRES
A DEPTH OF 10 FEET.

PRODUCTION
UNDETERMINED

GEOLGY AND MINERALOGY

AGE OF HOST ROCKS .......... JUR
HOST ROCK TYPES .......... SERPENTINE
IGNEOUS ROCK TYPES .......... DIKES OF DIABASIC AND DACITIC COMPOSITION

AGE OF MINERALIZATION .......... CEN

LOCAL GEOLGY

COMMENTS (GEOLGY AND MINERALOGY):
NEAR WESTERN EDGE OF JOSEPHINE ULTRAMAFIC SHEET, ABOUT 2 MILES FROM THRU$T-FAULT CONTACT WITH UNDERLYING DOHAN FORMATION MARINE SEDIMENTS. ULTRAMAFICS CONSIST OF HARZBURGITE AND SERPENTINITE. AMPHIBOLITE OF UNCERTAIN AGE,
(POSSIBLY UPPER TRI AND EQUIVALENT TO BRIGGS VALLEY AMPHIBOLITE) OCCURS AS TECTONIC SLICE.

GENERAL COMMENTS
AREA EXAMINED ONLY BRIEFLY IN THE FIELD.

GENERAL REFERENCES
1) RAMP, LEN, 1978, INVESTIGATIONS OF NICKEL IN OREGON: ODGMl MISC. PAPER NO. 20, P. 23
2) RAMP, L. AND OTHERS, 1977, GEOLOGY, MINERAL RESOURCES AND ROCK MATERIAL OF CURRY COUNTY, OREGON; ODGMl BULL. 92, P. 47
CHROME CREEK NICKEL LATERITE AREA

OWNERSHIP: A portion of the area on the north end of the ridge between Baldface and Chrome Creeks was posted by Inspiration Development Company in 1971; but no mining claims were known to exist at the time of our field investigation 8-9-77 and 8-10-77.

LOCATION: Several patches of rocky lateritic soil occurring in sections 7, 8, 9, 17 and 18, T. 40 S., R. 10 W., and small patches near the north end of Baldface Ridge in secs. 3 and 4 of the same township were given a reconnaissance-type field check. The area of topographic bench or gentle slope on the east flank of the ridge in NE¼ sec. 13, T. 40 S., R. 11 W., was not checked but appears from examining aerial photos to also have some soil accumulation. The patches of lateritic soil (see map) vary in elevation from about 732 meters (2,400 ft) to 1219 meters (4,000 ft) elevation. Latitude and longitude of a centrally located point in sec. 8 is 42°6'15" north latitude and 123°54'8" west longitude. This point is about 853 meters (2,800 ft) elevation.

The area may be reached by the Wimer Road, about 21 kilometers from O'Brien; then north on the Chetco Divide Trail about 22 kilometers to Doe Gap; then south on Baldface Ridge trail about 6 kilometers to the areas on the ridge. The areas on the west side of Chrome Creek are reached by about another 3½ kilometers across rugged terrain with no trail. Electrical power is about 16 kilometers distance by the shortest route and an adequate water supply is nearby on Chrome Creek. About 12 kilometers of road from the Winchuck River area would be required for access to the head of Chrome Creek.

CLIMATE, VEGETATION, AND LAND USE: The climate is temperate. Average annual precipitation is about 150 cm. Average summer temperature is about 16° C and about 4° C
Chrome Creek Ni laterite (continued)

for winter. Vegetation consists of scrub pine trees including white pine, knob-cone pine, lodgepole pine and Jeffry pine and shrubs including red huckleberry, manzanita, cascara, live oak, Oregon myrtle, ceanothus and others. The soil is poor and vegetation sparse as is typical of ultramafic rock areas. The land is unused except by various wild animals including deer, bear, elk, squirrel, chipmunk, skunk, bobcat, various birds, etc. (The etceteras may be the most abundant). The area west of the ultramafic rocks is heavily timbered and timber harvest is progressing into it. The area is proposed for inclusion in the extended Kalmiopsis Wilderness.

HISTORY, EXPLORATION, AND DEVELOPMENT: The areas were selected by reconnaissance photogeology using color infrared aerial photos of the Siskiyou National Forest flown in 1973. Exploration consisted of one brief visit to the area in an attempt to determine whether the areas were worthy of further investigation. Seven widely-spaced, shallow auger samples were taken. No other exploration or development has taken place to date.

GENERAL GEOLOGY: The area is underlain by ultramafic rocks, mainly harzburgite and serpentinite. The western patches are about 1¼ kilometers from the north-trending thrust fault contact where the ultramafics override the late Jurassic Dothan Formation. A few Tertiary dikes of rhyolite or dacite composition and a few diabase dikes intrude the ultramafics.

DESCRIPTION OF THE DEPOSITS: The very rocky lateritic soils appear to be concentrated in areas of slumps on benches formed by fairly old slides and in a few small residual soil areas on or near the ridge tops. Most of the soils appear to be shallow and in an early stage of
Chrome Creek Ni laterite (continued)

development. Extremely rocky surfaces with only small areas of rock outcrop may be
due to a surface concentration of rock where soil is stripped away by erosion. The
usual dark-red surface laterite is lacking in these areas and very little iron shot is
present. Table 1 lists the sample results.

Table 1. Auger samples

<table>
<thead>
<tr>
<th>Sample number</th>
<th>Depth</th>
<th>Depth</th>
<th>Location</th>
<th>Elevation (ft approx.)</th>
<th>Sec. T(S) R(W)</th>
<th>Ni</th>
<th>Co</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALG-58</td>
<td>5 ft</td>
<td>NW/NW</td>
<td>3</td>
<td>3,925</td>
<td>40 10</td>
<td>0.51</td>
<td>--</td>
<td>---</td>
</tr>
<tr>
<td>ALG-59</td>
<td>7 ft</td>
<td>SE/SE</td>
<td>8</td>
<td>3,550</td>
<td>40 10</td>
<td>0.61</td>
<td>0.59</td>
<td>0.59</td>
</tr>
<tr>
<td>ALG-60</td>
<td>5 ft 2 in</td>
<td>1/4 Cor</td>
<td>8-17 40 10</td>
<td>3,260 0.39</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG-61</td>
<td>7 ft</td>
<td>NW/NW</td>
<td>9</td>
<td>3,180</td>
<td>40 10</td>
<td>0.69</td>
<td>0.45</td>
<td>--</td>
</tr>
<tr>
<td>ALG-62</td>
<td>2 ft 8 in</td>
<td>Center</td>
<td>7 40 10</td>
<td>2,700 0.76</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG-63</td>
<td>5 ft 6 in</td>
<td>SE/NW</td>
<td>7 40 10</td>
<td>2,810 0.75</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALG-64</td>
<td>4 ft 2 in</td>
<td>S1/4NW</td>
<td>7 40 10</td>
<td>2,825 0.81</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The eight small areas of lateritic soil, mainly slumps, are estimated to aggregate about
38 hectares (see map) and the marginal, rocky or unexamined photo-interpreted areas
total about 112 hectares.

Information on depth is lacking and estimations are purely speculative, but for calculat­
ing preliminary tonnage figures on arbitrary average depth of 3 meters is selected.
The average rock to soil volume ratio for these areas is estimated to be about 70:30
even though much of the surface area appears more rocky than this.

TONNAGE AND GRADE CALCULATIONS: Minimum gross tonnage of rock and soil for
the total area of 38 hectares (using a factor of 1.6 m.t./m³) would be about 1.8 million
tonnes. Maximum gross tonnage of rock and soil in the total aggregate area of 150 hectares
would be about 7.2 million. The minimum, or more conservative net tonnage of soil and
saprolite would be about 500,000 tonnes. The maximum net tonnage would be about 2,000,000
or 2 million tonnes. Average grade of the net tonnage as calculated from the seven samples
taken in the area is 0.69% Ni and 0.88% Cr. Calculated approximate grade of the gross
tonnage is 0.38% Ni. Further field investigation is needed. Visited 8, 9, & 10-77 by
Len Ramp and Ron Bartley.

Report by Len Ramp 8-15-77 and revised 12-8-77.