

RECORD IDENTIFICATION

RECORD NO..... M015603  
 RECDRD TYPE..... XIN  
 COUNTRY/ORGANIZATION. USGS  
 DEPOSIT NO..... DDGM 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..... 18010101 CALIFORNIA  
 PHYSIOGRAPHIC PRDV..... 13 KLAMATH MOUNTAINS  
 LAND CLASSIFICATION..... 43

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

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

UTM NORTHING        UTM EASTING        UTM ZONE NO  
 4662600.            425135.            +10

TWP..... 040S  
 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

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

GEOLOGY 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 GEOLOGY

COMMENTS (GEOLOGY AND MINERALOGY):

NEAR WESTERN EDGE OF JOSEPHINE ULTRAMAFIC SHEET, ABOUT 2 MILES FROM THRUST-FAULT CONTACT WITH UNDERLYING DOTHAN  
FORMATION MARINE SEDIMENTS. ULTRAMAFICS CONSIST OF HARZBURGITE AND SERPENTINITE. AMPHIBORITE OF UNCERTAIN AGE,  
(POSSIBLY UPPER TRI AND EQUIVILENT 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: ODGMI MISC. PAPER NO. 20 , P. 23
- 2) RAMP, L. AND OTHERS, 1977, GEOLOGY, MINERAL RESOURCES AND ROCK MATERIAL OF CURRY COUNTY, OREGON; ODGMI BULL. 9  
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 NE $\frac{1}{4}$  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 3 $\frac{1}{2}$  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 Jeffrey 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  $1\frac{1}{4}$  kilometers from the north-trending thrust fault contact where the ultramafics override the late Jurassic Dathan 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

Sample number	Depth	¼ sec.	Location			Elevation ft (approx.)	Results (%)		
			Sec.	T(S)	R(W)		Ni	Co	Cr
ALG-58	5 ft	NW/NW	3	40	10	3,925	0.51	--	---
ALG-59	7 ft	S½SE¼	8	40	10	3,550	0.61		0.59
ALG-60	5 ft 2 in	¼ Cor	8-17	40	10	3,260	0.39		---
ALG-61	7 ft	NW/NW	9	40	10	3,180	0.69		0.45
ALG-62	2 ft 8 in	Center	7	40	10	2,700	0.76		1.16
ALG-63	5 ft 6 in	SE/NW	7	40	10	2,810	0.75		1.57
ALG-64	4 ft 2 in	S½NW¼	7	40	10	2,825	0.81		0.63

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 calculating preliminary tonnage figures an 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./m<sup>3</sup>) 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.