

Ill River

- Name: Free and Easy Nickel Prospect
- Ownership: The area has been claimed but present ownership has not been determined. There was no evidence of recent work on the ground when visited 9-12-74. The area is very likely claimed by Inter American Nickel Corp. See Eight Dollar Mtn.
- Location: The laterite area is situated on an east sloping ridge between 630 and 744 meters elevation; largely in the SW $\frac{1}{4}$ sec. 32, T. 38 S., R. 8 W. The deposit may be reached via a very primitive "jeep trail" that extends north from Free and Easy Pass. It is about 8 kilometers from Kerby on U.S. 199. Electrical power and water are about 1 $\frac{1}{2}$ kilometers distance.
- Climate and Vegetation: The average annual precipitation is about 90 cm; some of which may occur as snow during winter months. Average temperature - summer - is about 19° C and in winter about 5° C. Vegetation includes rather sparse old growth pine, cedar and fir, tan oak and minor brush.
- History and development: The area was apparently located about the same time as Eight Dollar Mountain by Freeport Sulfur Co. in 1942, at which time claims were located and small discovery cuts were dug. The next reported work was by Climax Molybdenum Co. in 1953. Two bulldozer cuts were made and the area sampled and mapped. The present investigation involved minor auger sampling and photogeologic mapping. 1974-75.
- General Geology: The deposit area appears to be a remnant portion of a very old landslide of mixed harzburgite soil and serpentinite. The laterite is surrounded by serpentinite and partly serpentinitized harzburgite with very little or no soil.

Description of deposit: The area is about 16 hectares with average of 600 meters long and 266 meters wide. The surface soil at the upper bulldozer cut at about 732 meters elevation (2,400 feet) is dark reddish brown turning to yellowish brown at about .6 meter. The intermixed boulders are partly serpentinized harzburgite which are estimated to be about 30 percent of the volume in the soil. Iron pellets and minor silica boxwork float are found on the surface. Maximum depth of soil development is estimated to be about 12 meters and the average depth 4.5 meters. The total area is between 16 and 18 hectares. Soil depth at the old caved Freeport shaft at about 634 meters elevation is only about .3 meter thick and is underlain by weathered serpentinite (soft and hard saprolite). Shassberger and Brooks, (1953) describe the deposit as follows:

"Alloy Claims on Free-and-Easy Mt.:

A small red soil area on the east slope of Free-and-Easy Mt. constitutes the Company's alloy group of claims (see Fig.4). Boxwork quartz occurs only sparsely from the location pit on Alloy No. 4 southwestward to just past the location pit on Alloy No. 3. Red pelletized soil is widespread but much of it is very thin. The location pit on Alloy No. 4 went through 4' of soil and then hit serpentinized bedrock. At the northwest corner of Alloy No. 4, bedrock is exposed in the creek bank under 1 ft. of red soil. The soil is very thin along the dry creek bottom that flanks the north side of the claims and although the location pit on Alloy No. 1 was in soil all the way, the boulder content increased markedly toward the bottom of the hole so as to suggest bedrock. A shaft on Alloy No. 4 carried to a depth of approximately 25 ft. by Freeport, may possibly be in soil all the way. No means were available for getting lower in the shaft than 6 ft. from the collar. However, the top material on the dump is all rock and the bottom of the shaft, as seen from above, consists largely of boulders or slightly rotted bedrock. No boxwork quartz was found on the dump of this shaft.

It is anticipated that the average thickness of laterite as outlined on the Alloy Group will be 15 ft. with a possibility that it may be as thick as 35 ft."

Grade and tonnage estimates: An unweighted average of 10 samples by the Department

and Climax Molybdenum Co. gives the grade of 0.85 percent nickel for

soil and saprolite. Analyses for other elements have not been obtained → 27.7% Fe, 0.9% Cr, 0.99% Ni, 0.06% Co = AIG-85

as yet. Gross tonnage of mixed soil and rock in the deposit calculated

on the basis of 1.86 mt/m³ is estimated to be about 1,339,200 tonnes.

The ^{estimated} net tonnage of soil and saprolite excluding 30 percent rock and

using a factor of 1.6 mt/m³ is 806,400 tonnes.

Grade of gross tonnage is calculated to be about 0.61 percent nickel.

Schassberger and Brooks (1953) report :

"Tonnage.....would be between - 1,000,000 ton minimum and a 2,415,000 ton maximum. The grade to be expected would again be approximately 1.0 percent of nickel."

References:

Schassberger, H.T. and Brooks, F. H., 1953, Climax Molybdenum Co. confidential report on California and Oregon red soil areas.

Report by: Len Ramp 11-24-75