MR 68-1

INTERIM REPORT
Rainbow Mountain-Gulkana Report

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Nickel-Copper Mineralization Adjacent to the Emerich Nickel Prospect

Background

During our geologic mapping program in the Rainbow Mountain area, we have been working very closely with Mr. Chuck Herbert, mining engineer in charge of the evaluation of the Emerich nickel prospect being conducted by the Newmont Mining Company. By pre-arranged agreement, we have enjoyed a mutual interchange of information coming from both programs; Mr. Herbert's contributions have been of importance to the mapping program in respect to increasing our knowledge of the detailed geology of the nickel and copper occurrences on the Emerich properties; and we in turn have been able to assist their evaluation program by providing assistance in the areal geology as our mapping program has progressed. Additionally, consultation has been given on the petrology of important rock units. This relationship has enabled the project to aid private industry in the field, based on current information; and to concurrently carry on the geologic mapping program.

Nickel-Copper Mineralization

Our work had shown the presence of gneissose granitic rocks, occuring as fault blocks (?) or reworked basement in contact with the sediments and volcanics on the south margin, and

phyllites and calc-phyllites on the north (see sketch map). As the map shows, additional structural complications are present, as the serpent inite bearing complex occurs on ridge A in the position where gneiss might be expected. It is possible that the serpentinite complex overlies the gneiss, and/or the serpentinite masses from the complex are also intrusive into the gneiss. We have been attempting to gain a better understanding of these relationships, as nickel mineralization in the area is closely linked with the serpentinite masses and related (?) basic and ultrabasic dikes.

As shown on the map, we had also discovered three plutons to the east, including a peridotite body which is of particular interest.

While we were attempting to delineate the contact relationships between the gneissose granitic rocks and the granitic pluton on Ridge C; in the draw which follows the contact zone, we found an outcrop area exposing several small masses of serpentinite. Pyrrhotite lenses similar to those occurring on the Emerich properties were discovered in the talus, and digging revealed several patches of garnierite in a coarse lateritic soil layer, and several massive pyrrhotite lenses in the rubble. Continued examination disclosed a zone of pyrrhotite-chalcopyrite mineralization which appears to be associated with an altered basic dike located in the contact zone between the gneiss and the directionless granitic rocks. The zone of mineralization appeared to extend into the granitic wall rock, and although the north margin of the zone has been eroded, rubble under the soil mantle shows mineralization for at least

one foot north of the face. The average width of the mineralized zone probably exceeds two feet in thickness. The zone is somewhat irregular, but roughly tabular, displaying a steep dip and a northwest strike.

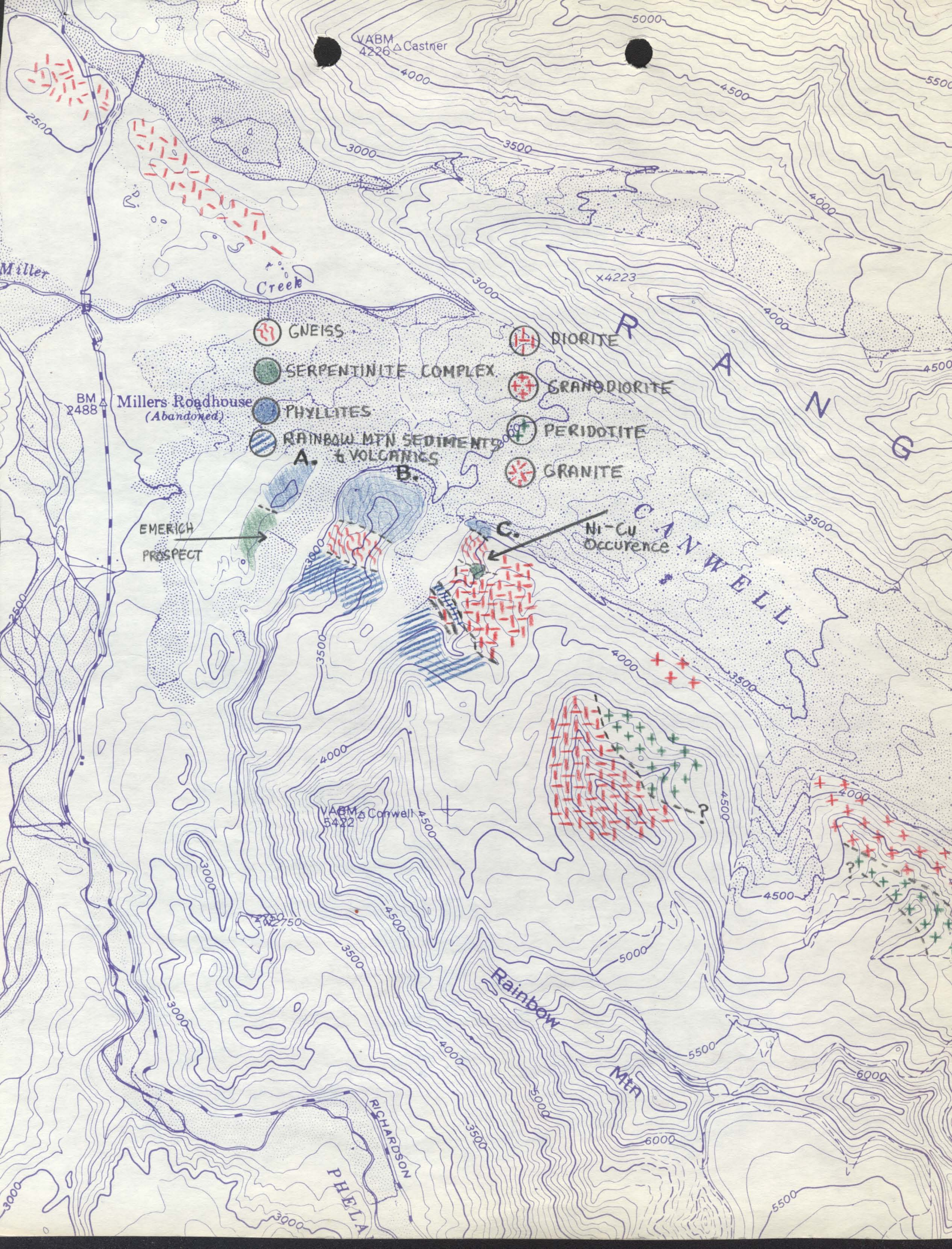
We have not worked on the detailed geology of the occurrence to date, so the description of the occurrence must be considered most general.

Samples submitted for assay produced the following results:

		Cu	Ni
RNPF-1	Garnierite-malachite stained soil from the rubble associated with the pyrrhotite lenses.....	7.3%	6.2
RNPF-3	Massive pyrrhotite lens.....	1.1	6.6
RNPF-4	Pyroxene bearing vein material with pyrrhotite and chalcopyrite....	2.0	1.2
RNPF-5	Altered granitic wall rock with pyrrhotite and chalcopyrite.....	1.9	1.5
RNPF-6	Massive vein material with chalcopyrite and pyrrhotite.....	6.0	1.1

The occurrence is considered to be a very significant showing, extending the known occurrence of nickel mineralization for at least one mile further to the east than previously recognized. The actual importance of this particular occurrence caanot be gauged at this time, but the area certainly deserves further examination including trenching and detailed assaying.

In our capacity as employees of the Division of Mines and Minerals during this project, we have alerted Mr. Herbert's attention to further nickel mineralization in the area, and trust that he will look into the matter while representing the interests of the Newmont Mining Co., and Mr. Emerich - with whom they have a two mile radius prospecting agreement.


VABM 4226 △ Castner
Miller Creek
BM 2488 △ Millers Roadhouse (Abandoned)
GNEISS
SERPENTINITE COMPLEX
PHYLLITES
RAINBOW MTN SEDIMENTS & VOLCANICS
A.
B.
C.
DIORITE
GRANODIORITE
PERIDOTITE
GRANITE
EMERICH PROSPECT
Ni-Cu Occurence
RANGE
CONWELL
VABM △ Conwell 5422
Rainbow Mtn
RICHARDSON
PHELA
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