

Mining Exploration on the Keweenaw Peninsula
FOLK Fact Sheet—Revised 2-10-14

*Information Derived from Highland Copper (HCC) website and HCC Community
Information Meetings*

<http://www.highlandcopper.com/s/home.asp>

Overview

In 2012 Highland Copper Company (HCC) a Canadian mining corporation, through its 100 percent held U.S. subsidiary, Keweenaw Copper Company (KCC), began a mining project in Keweenaw County. Test drilling is underway to determine the potential value of the ore body at two sites: 543S in Eagle Harbor Township and G-2 in Houghton Township.

FOLK plans to closely monitor the development of the project. As a first step, we have prepared this fact sheet. It provides a summary of key facets of the project. We will keep the fact sheet current.

The information for the *revised* fact sheet was drawn from the Highland Copper Company website (<http://www.highlandcopper.com/s/home.asp>), from HCC community information sessions in Calumet and Houghton, and an email exchange with Ray Govus, a HCC staff member. Comments are welcome. They can be emailed to FOLK at info@folkup.org. Or they can be made using the Forum on the FOLK mining education website: www.folkminineducation.info.

*Headings marked with double asterisk (**) provide new information.*

****Breaking News: *Highland Copper Acquires Orvana Copperwood Mine***

Highland Copper announced on February 11 that it had entered into a definitive agreement with Orvana Resources to acquire all rights, title and interest in the Copperwood Project. Copperwood is located about 18 miles southwest of the White Pine Mine which was recently acquired by Highland. (See “White Pine Mine Acquisition” below.

According to the news release, “among other things, ... the Acquisition is conditional upon the completion of a financing to fund the acquisition and receipt of all required regulatory approvals including the approval of the TSX Venture Exchange. Closing is expected by April 30, 2014. The Agreement has been approved by both companies' Boards of Directors.”

Highland will pay Orvana \$25.0 million for the project. \$20.0 million in cash will be paid at closing. The balance will be paid in cash or in stock when certain other conditions are satisfied.

David Fennell, Executive Chairman of Highland, stated:

This transaction is part of a strategy that Highland has undertaken to consolidate an emerging copper district in the Upper Peninsula of Michigan. The acquisition of Copperwood in conjunction with our previously announced acquisition of the White Pine Project, and

combined with our existing Keweenaw projects, establishes the foundation for an emerging intermediate copper producer. The synergistic combination of these three assets in a single portfolio will bring together a large-scale historical estimate of copper reserves and resources at White Pine and Copperwood, and additional potential copper resources from the Keweenaw projects."

In November of last year, the Michigan DEQ approved the final major permit required by Orvana to begin mining.

To read the Highland news release, go to

<http://www.highlandcopper.com/s/news.asp?ReportID=622695>

Financial and Management Matters

A Joint Venture.

Keweenaw Copper, acting on behalf of Highland Copper, entered into a "mining venture agreement" with Bowie Resource Products (BRP) LLB, a joint venture of International Paper and Natural Resources Partners (NRP), formed in 2010, through which it has acquired the mineral rights owned by BRP. Robert Grasseschi, a local businessman, helped set up the partnership between Highland and BRP. (*Garret Neese, DMG, 8/11/11*). The following are the terms of the agreement:

Pursuant to the amended Agreement, the Company has the right to earn up to a 65% interest in Keweenaw Copper Project covering about 13,000 acres of mineral rights for consideration of US\$750,000 cash, 1,000,000 common shares of the Company, and US\$11,500,000 to be spent on a development and exploration program on the project by October 26, 2015. At the end of the earn-in period and as a condition to earning its 65% interest, Highland is required to produce a feasibility study to be prepared by an independent consultant selected by the management committee. (Source: Highland Copper website. <http://www.highlandcopper.com/s/news.asp?ReportID=529569>)

Project Director.

Ross R. Grunwald is Highland's vice president for exploration. He is responsible for the exploration taking place in Keweenaw County. His office is in Calumet. He is the owner and principal consultant of GeoResource Management headquartered in Jamestown, California, a consulting firm offering geological and environmental services to North American mining companies. He holds a M.Sc. from the University of Hawaii and a Ph.D. from South Dakota School of Mines & Technology. He has 40 years of experience in the fields of mining, mineral exploration, and groundwater resource evaluation, as well as environmental site characterization and remediation. Mr. Grunwald will be the key figure in heading up the Company's operations in Michigan. (Source: Highland Copper Website.

<http://www.highlandcopper.com/s/boardandmanagement.asp>

*****Other Information***

- According to its website, BRP, as of 2011, owns approximately 8.8 million mineral acres in 29 states, including approximately 60,000 gross acres of copper rights in the UP. Once mainly invested in coal, BRP's holdings are now very diverse. According to *NRP's 2012 Annual Report*, Cline owned 31 percent of NRP *as of Dec. 2012*. As outlined on [NRP's website](#) and its prospectus, NRP is the managing and controlling partner of BRP with a 51 percent interest, with IP controlling the remaining 49 percent. (Thanks to Steve Garske for this information. See his excellent article on Keweenaw Now: <http://keweenawnow.blogspot.com/2014/01/guest-article-mining-industry-has-big.html>)
- Grunwald revealed in his comments at the Calumet gathering that BRP had fronted the funds HCC needed to start up its operation (hiring staff, acquiring an office), although HCC raised the capital itself to fund the exploratory drilling on the Keweenaw Peninsula.
- HCC has made a private stock placement of 55.6 million shares of stock at cost per share of \$.45 for a total value of \$25.0 million. It will use these funds to continue its exploration activities, which now include the White Pine Mine.
- Grunwald said at the Houghton community information meeting that HCC plans to raise the capital to move from mining exploration (a junior mining company) to mining (an intermediate sized company), rather than sell its venture to a large mining company like Rio Tinto to complete its development. He said that HCC, like Lundin and Orvana, which are intermediate sized companies, would invest the earnings from its mining operations in the exploration and development of new mines.

Keweenaw Peninsula Projects

Property Description and Location (Quoted from HCC Website)

...The mining district is approximately 100 miles long and less than 4 miles wide. The Keweenaw Copper Project covers about 9,000 acres of mineral rights comprising the 543S and G-2 historical deposit as well as other chalcocite prospects. (See map below.)

The 543S historical deposit is located in Keweenaw County and lies about 21 miles north of Calumet, Michigan and immediately west of Gratiot Lake. The 543S property lies in the southern portion of the zone of chalcocite prospects. The other chalcocite properties lie 1 to 2 miles southwest to about 13 miles to the northeast. All of the properties are held through private but separated mineral and surface rights. (Source: Highland Copper website: <http://www.highlandcopper.com/s/keweenaw.asp?ReportID=498449>)

Exploratory Drilling

Highland's decision to acquire the properties that it is exploring was based on historical data. But to develop mining projects it needed data that complied with the requirements of Canadian National Instrument 43-101.¹ As a first step in acquiring the data it contracted with Behr Dolbear, an international mineral advisory firm to: (1) review the historic data bases and drill core for two historic mines, an undeveloped property, and several sulfide copper sites and (2) to prepare a Property of Merit NI 43-101 Report (Source: <http://www.highlandcopper.com/s/news.asp?ReportID=444390>)

Behr Dolberg reached the following conclusions:

- “Centennial, Kingston and the copper sulfide deposits host Historic Resources and all are Properties of Merit. The three project areas contain valid exploration targets whose details have not yet been verified to acceptable NI 43101 standards but are based upon previous drill results and mining and underground sampling that defined the approximate length, thickness, depth, and grade of a portion of the historic resource estimate.”
- Highland should give priority to the **copper** sulfide deposits because they have the “highest grade copper...the best opportunity to discover new resources, make new discoveries, and the potential for open pit mineralization.” The third priority was the Kingston mine. (Source: http://www.highlandcopper.com/i/pdf/reports/keweenaw_ni43101_sep2011.pdf)

Highland has proceeded with the development of the two copper sulfide deposits, 540S and G-2.

Current Status

The following is an excerpt from a November 14, 2013 Highland press release.(Source: <http://www.highlandcopper.com/s/news.asp?ReportID=611406>)

High grade copper mineralization in new zones...

The following are the results of step-out diamond drilling on targets adjacent to the 543S and G-2 deposits in the Keweenaw Peninsula region of northern Michigan, U.S.A. and an update on its resource evaluation of the 543S deposit....

543S Deposit Area

Several targets were recently drilled around the 543S deposit, identifying two new mineralized zones: the 24 West zone and Section 3200 East zone.

The **24 West zone** is located 700 meters southwest of the 543S deposit The 24 West zone was discovered by offsetting a single historic drill intersection made in the 1970s....

The geology of 24 West is similar to that reported for the 543S deposit in previous news releases, the most recent dated April 4, 2013. Higher grade chalcocite mineralization is controlled by flow top breccias and amygdaloidal zones in basalt lava flows....

G-2 Deposit

The G-2 deposit is located about 18 km east of the 543S deposit. The Company has completed 39 holes totaling 3,801 meters within the G-2 grid....

The G-2 deposit consists of at least five, near-vertical lens-like zones of chalcocite hosted by the Portage Lake lava series. Mineralization occurs in brecciated tops of scoriaceous, amygdaloidal basalt lava flows and is accompanied by small amounts of native copper, native silver, and traces of other sulfide minerals.

****Additional Information (Derived from Community Information Meetings)**

- Ross Grunwald at the Houghton meeting said that HCC expected to complete a feasibility study for 543S by October, 2015, as required by the joint venture agreement with BRP. However, there are some unresolved technical issues surrounding G-2. It is not clear when a feasibility study will be performed.
- Grunwald indicated that emphasis will shift from the Keweenaw Peninsula projects to exploration and the examination of the feasibility for development of processing facility at the White Pine site.
- Grunwald said that HCC was examining various alternatives for transporting the ore taken from its Keweenaw mines to White Pine for processing. Among them are trucks and barges.
- Grunwald indicated that the life of 543S is project to be 10 to 15 years. The life of the North mine at White Pine is projected to 25 to 30 years. He also said that the lead time required to submit a DEQ application for a permit to mine about five years for **543S** and three years for the North mine at White Pine.

Map Showing Location of Project Exploration Sites



****White Pine Mine Acquisition**

Acquisition

According to a Highland Copper press release issued on November 19, 2013, Highland Copper has executed a letter of intent to purchase the White Pine mine in Ontonagon County from Copper Range company. (CRC). Dave Fennell, Executive Chairman of Highland, is quoted as stating:

Since our capital raise in May 2012, the Company has been establishing itself as an emerging copper exploration and development company focused in northern Michigan, an area which we consider to be highly prospective. The acquisition of White Pine is complementary with our existing Keweenaw project, particularly given the extensive infrastructure in place from past operations, and is a significant step towards further establishing Highland as a leader in the region. We view this as a highly synergistic and important transaction for Highland shareholders.

To read the article click here: [Highland Copper Acquires White Pine](#). To find maps showing the extent of the Highland Copper mineral rights holdings on the Keweenaw Peninsula as a result of the acquisition of the White Pine mine, click here: [Highland FactSheet Dec6 2013](#)

Letter of Intent (From HCC News Release)

Highland and CRC will work toward executing a definitive asset purchase agreement and completing an interim closing by January 31, 2014 and a final closing by December 31, 2015. During the period between the interim and final closing (the "Interim Period"), Highland will have access to White Pine to perform exploration and other activities associated with the potential development of a mine at White Pine.

Other Information

- HCC, according to its White Pine project manager, will do exploratory drilling at the site of the potential White Pine North Mine in order to prepare a current evaluation of the mineral resources in compliance with Canadian law.
- If it completes the acquisition of White Pine, HCC will have acquired the mineral rights on properties extending south to Bald Mountain and north on the west side of the Keweenaw **Peninsula** into Keweenaw County.. There are at least two sites, Bald Mountain and JBY (See map--[Highland FactSheet Dec6 2013](#)), that have the potential for development, although Grunwald indicates they are of a low order of priority at the present time. (According to Ray Govus, four holes have been drilled at Bald Mountain.)
- Rather than build a new smelter, it is considering other technology like Staged Flotation Reactor technology.
- HCC indicated in its public presentations that it is seriously examining the feasibility of developing a processing facility at White Pine that would have the capacity to mill and to extract metal from the ore using an alternative process to that of smelting. It would process ore from its own mines and from other mines such as Copperwood and others that might come into production in the western UP. Thus the White Pine site would become the "center of gravity" for mining in the western UP.

Western UP: A New Mining District?

A question raised by HCC's proposed acquisition of the White Pine Mine and its plans for its development is whether the western UP is on the verge of once again becoming an active mining district. And, if so, what is an appropriate response?

End Note

ⁱ“**National Instrument 43-101** (the "NI 43-101" or the "NI") is a national instrument for the *Standards of Disclosure for Mineral Projects* within Canada. The Instrument is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies which report these results on stock exchanges within Canada. This includes foreign-owned mining entities who trade on stock exchanges overseen by the [Canadian Securities Administrators](#), even if they only trade on Over The Counter (OTC) derivatives or other instruments. Many publicly held Canadian mineral exploration and mining companies list on the [TSX Venture Exchange](#) (TSX-V) or the [Toronto Stock Exchange](#) (TSX). Some of these companies may also have listings on stock exchanges outside Canada, such as [Johannesburg Stock Exchange](#), [Australian Securities Exchange](#) and [London Stock Exchange](#).

Disclosures covered by the NI 43-101 code include press releases of [mineral exploration](#) reports, reporting of [resources and reserves](#), presentations, oral comments, and websites. The NI 43-101 covers metalliferous, [precious metals](#) and solid energy commodities as well as bulk minerals, [dimension stone](#), [precious stones](#) and [mineral sands](#) commodities.”

(Source: Wikipedia, *National Instrument 43-101*.)