

Metallurgy Update

Nevada Lithium-Boron Project

Highlights

- Results from the 2nd stage of the current metallurgical program show that flotation is highly effective in removing carbonate minerals (calcite and dolomite) from the Li-B mineralisation.
- 58-65% of the carbonate was removed with Li and B recoveries >95%. Higher rates of carbonate removal (up to 81%) can be achieved at lower Li-B recoveries.
- The results show that the carbonate content of the Li-B mineralisation can be reduced from 11% CO₃ to between 2.1 and 4.7% CO₃ through carbonate flotation.
- Carbonate minerals consume acid and their removal prior to acid leaching will significantly reduce the amount of acid required to leach lithium and boron.
- Metallurgical results to date continue to support potential for a simple, low-cost acid leaching flowsheet using established technologies/processes.
- The 3rd stage of the current program is currently underway and involves acid leaching of the flotation concentrate to determine metal recoveries and acid consumption.

Global Geoscience Limited (“Global” or “the Company”) is pleased to announce a further update from ongoing metallurgical test work at the Rhyolite Ridge Lithium-Boron Project. The results continue to demonstrate the potential for simple, low-cost acid-leach process to produce lithium carbonate and boric acid. Rhyolite Ridge is a large, shallow lithium-boron deposit located in southern Nevada.

Global’s Managing Director, Bernard Rowe commented: “We are very pleased with the flotation results as they clearly demonstrate that we can remove a large amount of the carbonate prior to the acid leach step and that will significantly reduce the amount of acid required to leach the lithium and boron from the rock. Importantly, very little lithium and boron are lost in the flotation process with recoveries greater than 95%.”

The current metallurgical program is aimed at evaluating a simple process route involving crushing, grinding and flotation followed by acid leaching to recover lithium and boron. The relatively simple process route, using established technologies, is expected to compare favourably to other sources of lithium including brine and spodumene deposits.

Key steps in the current metallurgical program are to establish parameters for:

1. Crushing and grinding to liberate the mainly coarse-grained minerals – searlesite, k-feldspar, calcite, dolomite
2. Flotation to remove carbonate minerals (calcite, dolomite)
Carbonate minerals consume acid but do not contain Li or B.
3. Acid leaching of the flotation concentrate (carbonate removed) to determine Li/B recoveries and acid consumption

Metallurgical Testwork

Metallurgical testwork is being undertaken by Hazen Research in Colorado, USA and SGS Minerals in Ontario, Canada. The latest results are from a sample of Li-B mineralisation collected from outcrop from within the South Basin Mineral Resource and are considered to be representative of the high-grade Li-B searlesite mineralisation.

Reverse flotation was adopted to separate carbonate minerals (calcite, dolomite) from the lithium/boron bearing minerals. The head samples were crushed and ground in a rod mill at 62% solids, de-slimed by decantation (P80 of 133 microns after de-sliming), preconditioned with a fatty acid collector and rougher carbonate flotation was conducted. Two tests were conducted on the same sample using two different collector chemicals. The carbonate removed by flotation was 58-65% of the original feed in 14-17% weight mass.

Lithium and Boron recovered in the tailings and slimes were 96% and 95% respectively. The removal of carbonate gangue had a concentrating effect for lithium that was upgraded to a factor up to 1.7 in the slimes fraction.

TEST 1	Weight	% CO₃	% Li	% B
FEED (Calculated Head)	930	10.8%	0.172%	1.74%
Slimes (Desliming)	259	5.2%	0.263%	1.16%
Rougher Tails	543	5.4%	0.158%	2.29%
Carb Concentrate(Cleaner)	128	45.2%	0.045%	0.62%
FEED (Assayed Head)		11.2%	0.150%	2.12%
Removal Efficiency	14%	58%	4%	5%
Recoveries			96%	95%
TEST 2				
FEED (Calculated)	912.6	11.10%	0.17%	1.93%
Slimes	77.7	4.16%	0.28%	1.56%
Rougher Tails	683	4.73%	0.18%	2.24%
Carb Concentrate	151.9	43%	0.06%	0.75%
Removal Efficiency	17%	65%	5.5%	6%
Recoveries			94.5%	94%

Table 1. Results from the two flotation tests conducted on the same sample. The only difference between the two tests is the collector chemical used in the flotation process.

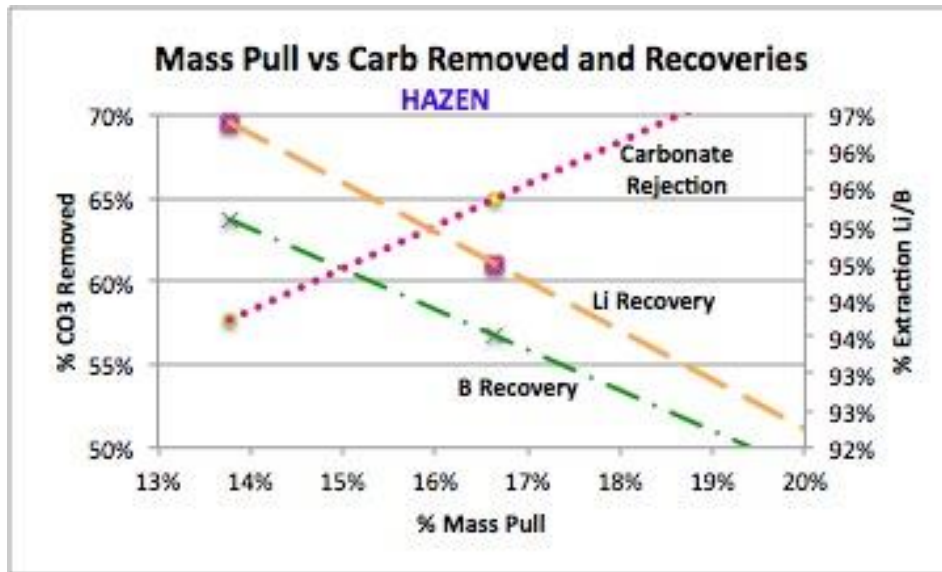


Figure 1. Graph showing the relationship between carbonate rejection and lithium/boron recoveries. Further test work is required to optimize the balance between carbonate removal and lithium/boron recovery.

The work done to date by Hazen Research compares well with the previous testing conducted by SGS in 2012 on this deposit where calcite flotation removed between 63% and 81% of the CaO depending on the desired mass pull and the associated lithium losses.

About Rhyolite Ridge Lithium-Boron Project

Rhyolite Ridge is a lithium-boron deposit located in southern Nevada. The deposit contains a Resource of 3.4 million tonnes of lithium carbonate and 11.3 million tonnes of boric acid, making it one of the largest lithium and boron deposits in North America. The Resource is open in most directions and is likely to increase in size with additional drilling. In addition, the North Basin hosts lithium-boron mineralisation drilled by a previous exploration company in the 1980’s that is not included in the Resource.

The Resource contains a high-grade Li-B zone referred to as the Searlesite Zone and comprising 65Mt at 1.0% Li_2CO_3 and 9.1% H_3BO_3 for a total of 650,000 tonnes of lithium carbonate and 5.9 million tonnes of boric acid – sufficient material to support a 3Mtpa mining operation over 20 years.

The mineralisation is hosted within shallow, flat-lying sedimentary rocks, representing a potential third source of lithium – in addition to brine and pegmatite types. Lithium-boron mineralisation occurs with the mineral searlesite – an acid leachable sodium boro-silicate mineral.

Rhyolite Ridge is located close to existing infrastructure and is 25km west of Albermarle’s Silver Peak lithium mine and 340km by paved road from the Tesla Gigafactory. It has the potential to be a strategic, long-life, low-cost and reliable source of lithium and boron. Global has the exclusive right to purchase 100% interest in the project.

Compliance Statement

The information in this report that relates to Exploration Results is based on information compiled by Bernard Rowe, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Rowe is a full-time employee and Managing Director of the company and he holds shares and options in the company. Mr Rowe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Rowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Information in this report that relates to Mineral Resources is extracted from the report entitled "Maiden Resource for South Basin at Nevada Lithium-Boron Project" created on 10/10/2016 and is available to view on the Global Geoscience website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

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