

Fast Tracking the Superior Lake Project Re-Start Plan

Highlights

- Historical review of mining operations and remaining infrastructure at Superior Lake gives confidence to accelerate Restart Feasibility Study
- Company to leverage off extensive infrastructure remains on site which provides a significant advantage in terms of development time line and costs
- Historical geotechnical test work and trial stoping mining proved successful in limiting dilution
- Metallurgy is excellent with operations historically averaging 94% Zn and 78% Cu recoveries
- Preliminary Restart Feasibility work is progressing with the studies on capital and mining on track for Q3 2018

Superior Lake Resources Limited (“Superior Lake”) is pleased to announce that following the completion of its maiden JORC resource (2.15mt at 17.7% Zn 0.8% Cu 0.4gpt Au and 33.5gpt Ag) it has completed an extensive review of historical information on the Project. This review has given the Company the confidence to fast track the restart of the Superior Lake Project (Project).

Initial results will be outlined in preliminary study estimates expected to be completed during Q3 2018. For further information about Nordmin please see the appendix.

Superior Lake Resources CEO David Woodall states:

After an extensive review of the historical information from the operation, we believe we have a significant advantage in comparison to other development assets, on a number of levels.

Firstly, significant infrastructure remains in excellent condition surrounding the project whilst extensive mine development has been established. Both of these elements significantly reduce the initial capital cost, as well as the time before first production.

Secondly, the historic mining operation successfully trialled long hole open stoping at the Pick Lake deposit, prior to the operation closing due to low metal prices. Using this method with cemented paste fill, a technique not previously available, we have identified the most likely mining technique to be used.

Finally, for more than a decade the operation demonstrated excellent metallurgical recoveries. With advancements in metallurgical technologies over the past 20 years, we believe this could potentially be further improved.

We look forward to releasing the preliminary study work later this quarter.



Background of Superior Lake Project

The Project has a long history of exploration and production, with many long breaks between activities and discovery as summarised below:

- Late 1880's – Exploration began with discovery of the Zenith zinc deposit.
- Early 1900's – Massive coarse-grained sphalerite ore was hand-mined.
- 1966 to 1970 – Zenmac Metal Mines Ltd mined Zenith producing 180,000 tons of ore grading 16.5% zinc.
- 1978 to 1980 – Corporation Falconbridge Copper (CFC) acquired the property.
- 1992 – Exploration resulted in discovery of the Winston Lake massive sulphide deposit.
- 1983 – CFC commenced a 3-compartment shaft for underground delineation drilling.
- It took 15 – 18 months to complete the shaft and underground drilling, which resulted in the initial historical deposit of 2.95 MT@ 17.8% Zn, 0.94% Cu, 0.7 oz/ton Ag and 0.025 oz/ton Au.
- 1984 – Pick Lake discovery was announced.
- 1988 – Minnova (formerly CFC) put the Winston Lake mine into production with pre-production expenses of \$73.6M.
- 1988 – Company reported completion of a 741m shaft with a designed production capacity of 1000 metric tonnes per day.
- Payback on initial investment was only 2.5 years compared to the 5 years initially estimated due to high zinc prices and good production.
- 1993 – Access to Pick Lake deposit via an approximately 2,200m drift west of Winston Lake and the development of a 650m internal shaft commenced.
- 1998 – Inmet (formerly CFC, Minnova) intended to mine the Pick Lake Deposit for 7 years, but a poor zinc price caused the mine to close.
- Historical production from the Project was approximately 3.3 million tonnes processed over an 11-year period producing 900Mlbs of zinc, 53Mlbs of copper and over 50,000 ounces of gold.
- Post cessation of mining, Inmet dismantled the process plant, sold it and began reclamation at the site.
- 2000 – 2008 – Limited work was undertaken at the Project as Inmet was focusing on development of its world class Antamina Mine development in Peru.
- 2008 to 2010 – Orebot Inc acquired the Pick Lake Claims carrying out exploration programs.
- 2011 – Property was optioned to Silvore Fox and they immediately undertook an airborne versatile time domain electromagnetic (VTEM).
- In 2013 Inmet was taken over by First Quantum Minerals Inc.
- 2017 to 2018 – Superior Lake acquires the Pick Lake Licences and options Winston Lake Project and acquires all mining data from First Quantum.

Superior Lake is the first company since Inmet to have consolidated both the Pick Lake and Winston Lake mining claims since the operations closure. This has enabled the Company to review and utilise the historical data and potentially fast track production using the extensive existing underground development.



Existing Project Infrastructure

The Project has substantial infrastructure in place which allows it to fast track the Restart Feasibility Study at a substantially reduced cost and development time line compared to a green fields development. The current infrastructure in place at the Project is set out below:

- 20km all-weather access road;
- 20km 115kV transmission line;
- ~2km transmission line from the Winston to Pick Lake;
- Electrical Substations including a 115kV to 44kV transformer;
- 650m Winston Shaft
- 650m Pick Internal Shaft;
- 2.5km development drive between Winston and Pick Lake deposits;
- The tailings dam with design capacity to incorporate the Pick Lake resources;
- Fresh water dam;
- Four ventilation shafts;
- Backfill raises;
- Underground ramps and development on multiple levels in both Pick and Winston deposits;
- Over 180,000m of surface and underground drilling.

Figure 1 – Schematic of Historical Layout

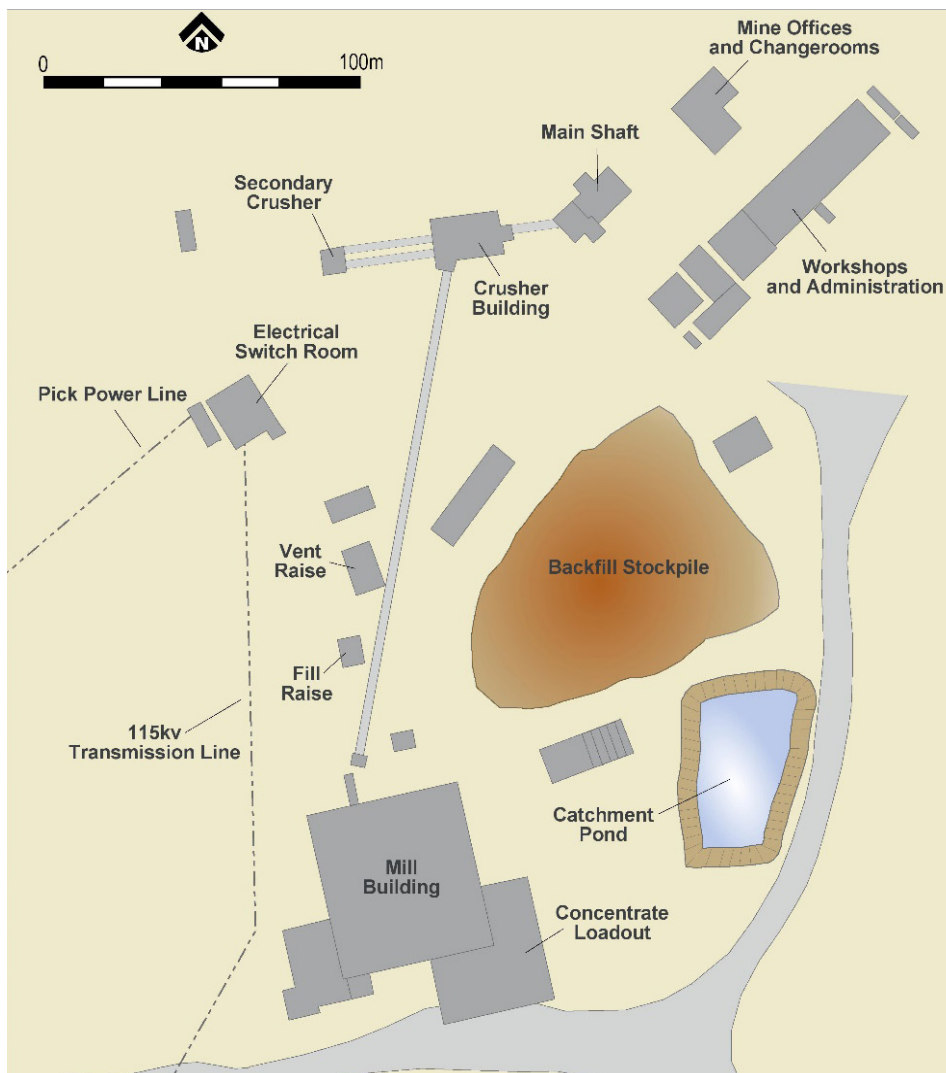




Figure 2 – Tails Dam (Superior 2018)



Figure 3 – Capped Ventilation Shaft at Project Site (Silvore Fox 2013)





Figure 4 – 115kV: 44kV Transformer (Superior 2018)





Figure 5 – MCC in Project Substation (Superior 2018)



Figure 6 – Project All Weather Access Road with Main Power (Superior 2018)





Figure 7 – Historical Surface Operations at Winston Lake



Historical Mining Review

Stoping of the ore at Winston Lake initially planned to use a mechanised cut and fill method, however this was changed to the more productive methods of mechanised AVOCA stoping and where no development existed, Alimak stoping. Access on ore was achieved through a series of sublevels developed at 20m vertical intervals connected via a hanging wall ramp (gradient of 1 in 7) at a 4m x 4m profile. Once the ore was extracted from the stope, unconsolidated rock-fill material was then placed into the mined-out stope.

Ore mined from Pick Lake Deposit was transported via a rail system on the 615-access drive where it along with ore from Winston was hoisted to the surface via the Winston Shaft.

Dilution from past mining was caused through a number of factors:

- In Winston Lake dilution was impacted by the size of ore drives, a chert intrusion along certain parts of the hanging wall, and the use of the AVOCA mining method.
- Development of new ground support techniques, such as the use of cable bolting to minimise the hangingwall failures occurring. The research and development work completed at Winston on cable bolting was leading edge at the time and is now standard procedure in many underground mining methods to minimise dilution.
- The Alimak mining method used at both Pick and Winston, where there was minimal access development resulted in dilution occurring due to no backfill being used. This lack of access prevented Inmet from backfilling the mined out areas as a result hanging wall dilution occurred. It was in this context that Inmet recognised these impacts on stoping and performed a test stope in Lower Pick.



In 1998, Inmet carried out extensive studies on alternative mining methods to limit the effect of dilution and costs in the prevailing low-price zinc environment at the time.

As part of this strategy, Inmet completed a successful test using the longhole stopeing method on the 1045 level of Pick Lake (Figure 8 & 9). The 1045 test stope had a strike length of 25m, an average width of 2.5m and a height of 15.5m. On completion of the stope, a cavity monitoring survey measured the void to calculate dilution from the hanging wall and footwall. As part of this test, ground monitoring was installed prior to mining to measure hanging wall movement. After 20 days no measured movement of the hanging wall was recorded (no fill was placed in the stope). At the successful completion of the test stope, dilution was calculated at 18% however, prevailing zinc prices at the time meant that the Project was not viable until there was a substantial and sustained increase in the zinc price and the decision was made to permanently close the operation.

Figure 8 – Pick Lake Longhole Drilling in 1045 Test Stope (Inmet 1999)

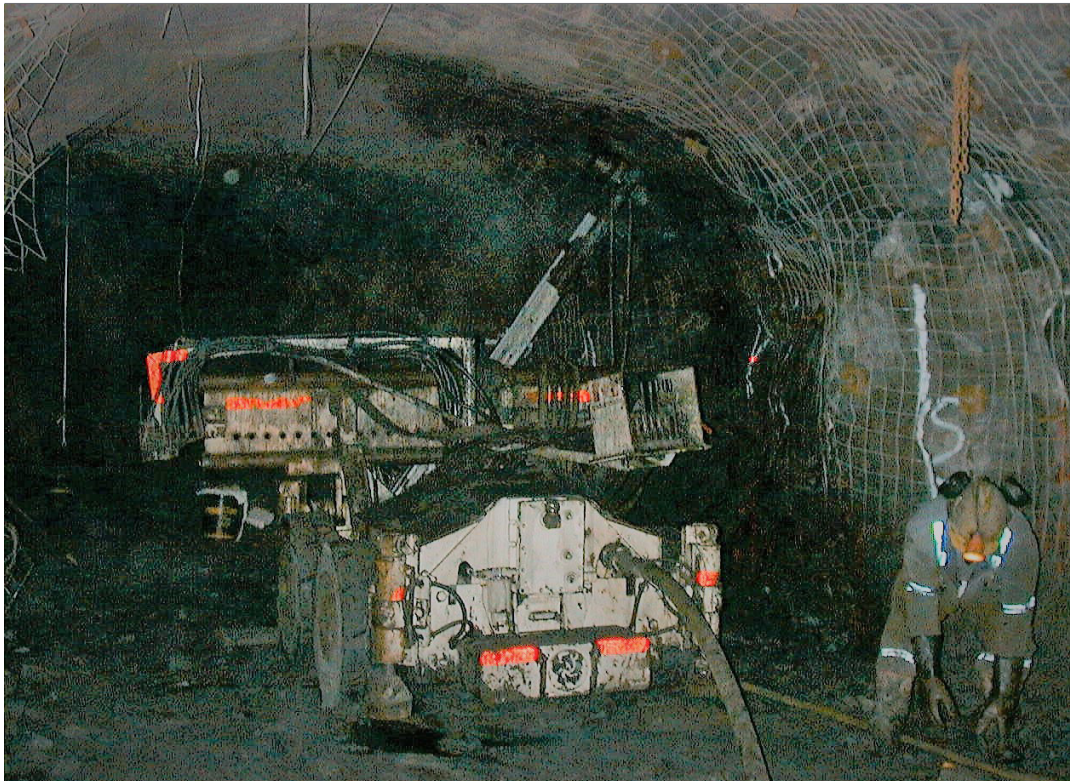
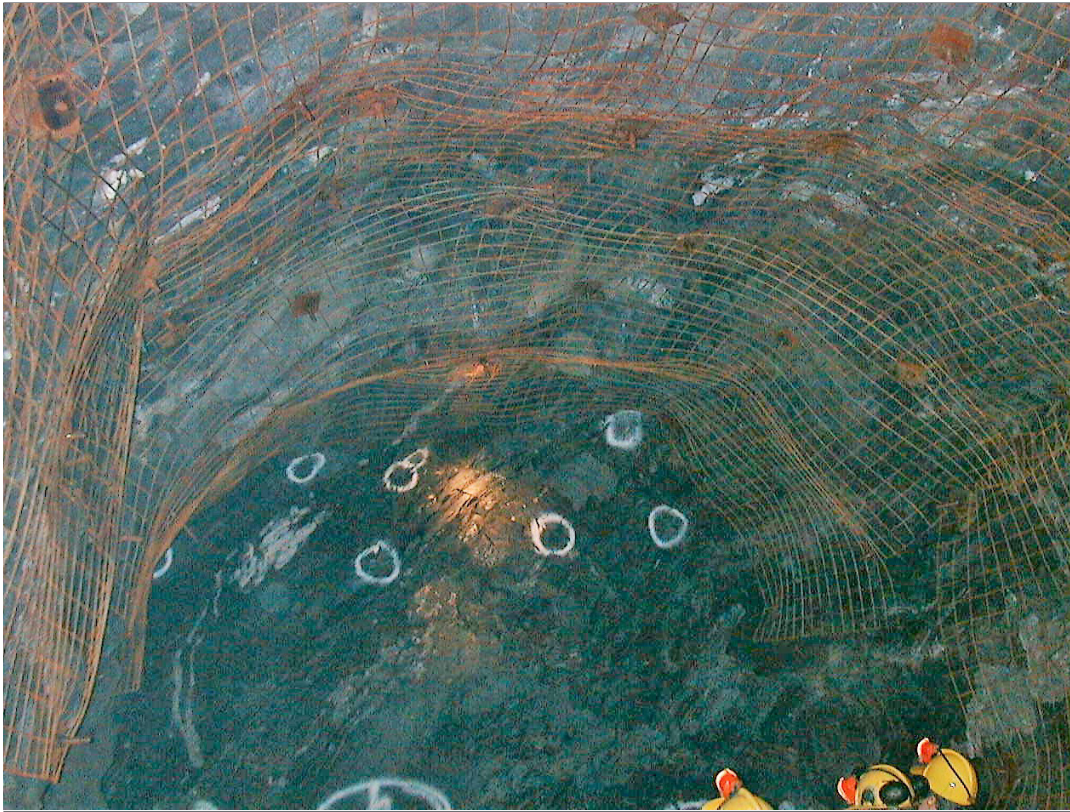




Figure 9 – Ground Support in Lower Pick (Inmet 1999)





Superior's Mining Strategy

The mine design and operating strategy that will be incorporated in the Restart Feasibility Study planning for the Project will leverage off the following opportunities:

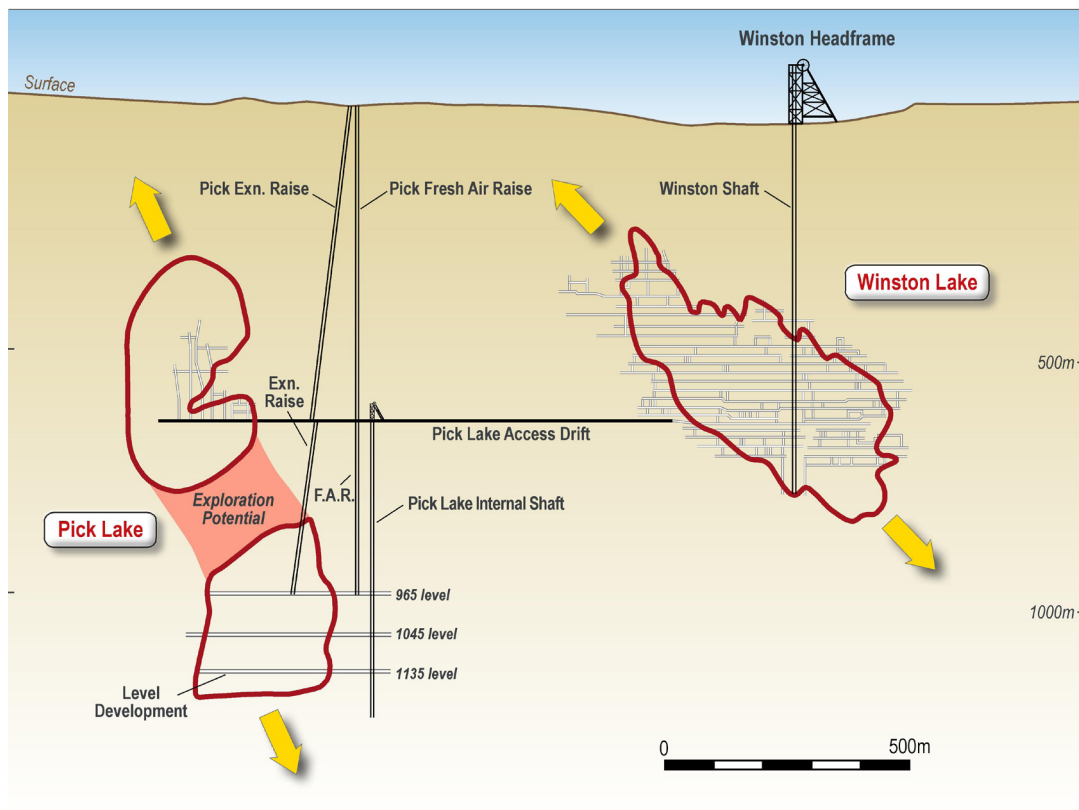
1. Take advantage of the historical development (Figure 10);
2. Use proven modern mechanised mining methods and equipment using electric-hydraulic jumbo, cable bolting and longhole drills;
3. Adopt cemented paste fill, a proven more reliable and efficient fill technology which wasn't available at the time of mine closure; and
4. Take advantage of higher metal prices.

At the time of mine closure, development was completed in the following areas:

1. On three levels developed from the internal Pick Shaft accessing the Lower Pick resource;
2. A decline ramp was completed some 20m vertically below the 615-access drift between Pick and Winston;
3. Ramp and hanging wall development adjacent to the Winston resources.

This historical development provides early low-cost production opportunities. The ore below the 615 level will require drilling that can be done once dewatering has been completed.

Figure 10 – Superior Lake Project Schematic – Significant Underground Development Completed





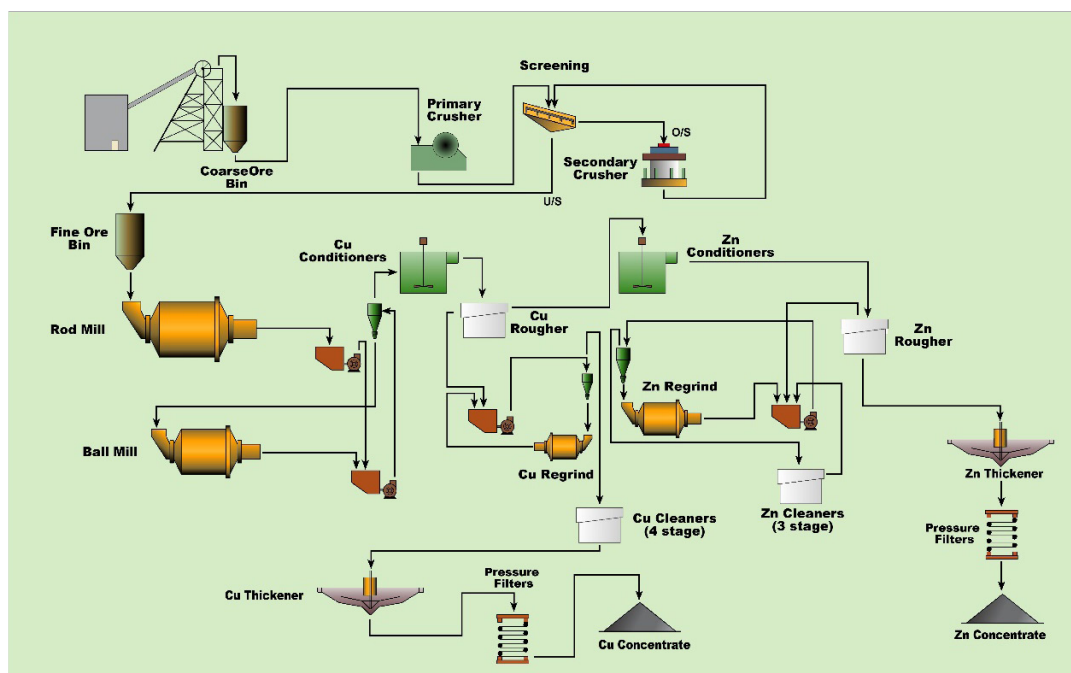
An essential part of Superior’s restart strategy will be to ensure multiple work headings are included during development and production phases of the project to ensure the efficiency of the mining and critically to mitigate production interruption risk.

The study will assess the use of cemented paste fill within the mine plan to maximise ore recovery, improve the efficiency of filling and minimise unplanned dilution. The use of paste fill has improved greatly in the 20 years since mining ceased at the Project. It is now a proven reliable and efficient technology used within the industry with benefits in ground support and tailings disposal.

Historical Plant Operations

The historical production from the Project was approximately 3.3 million tonnes processed over an 11-year period producing 900Mlbs of zinc, 53Mlbs of copper and over 50,000 ounces of gold at reported recoveries of 94% (zinc) and 78% (copper). The mine was closed in 1999 due to a sustained period of low zinc prices and the plant, mine and associated infrastructure decommissioned and dismantled.

Figure 11 - Proven Historical Flowsheet (Inmet 1999)



The previously installed mill consisted of a two-stage crushing circuit followed by a two-stage (rod and ball) milling circuit. A copper concentrate was produced in the first stage of flotation where the copper rougher concentrate was reground before the final stages of cleaning. The copper rougher and cleaner tails were then conditioned and a zinc concentrate produced in this second stage of flotation. Again, the zinc rougher concentrate was reground to improve final concentrate quality. Concentrates were thickened before being filtered in two Larox pressure filters. The ore was processed at a rate of 1,000tpd and approximately 250 to 350tpd of concentrates were produced which was trucked to a rail siding in the town of Schreiber and loaded onto rail cars for shipment to smelters. Figure 11 shows a schematic of the process flowsheet that will be adopted by Superior, that was successfully used over the 11 years that the Project operated.



Table 1 – Historical Metallurgical Recoveries (Inmet 1999)

Metal	Average Recovery
Zinc	93.7 %
Copper	78.3 %
Gold (reporting to Cu Conc)	38 %
Silver (reporting to Cu Conc)	37 %

The past production was successful and has clearly demonstrated that the mineralisation is amenable for processing using conventional flotation technologies and that the valuable metals are effectively recovered as either a copper or zinc sulphide concentrate. Whilst past production was successful, the Company cautions that past performance at the Project is not a guide as to future performance, and that for the Company to successfully restart operations at the Project, further studies and evaluation work is required to be undertaken before the Company will be in a position to estimate any ore reserves or to provide any assurance of an economic development case. There is no guarantee that such work will result in the declaration of an economic development case at the Project.

Other key process information identified include:

- Variable Bond Work Indices (BWi) of the ore, ranging from 11.0 to 18.4kWh/tonne, but more consistently between 11.0-14.0kWh/tonne
- Primary grinding circuit target grind size is p80 74 microns (200 mesh)
- Copper regrind product size is p80 20-30 microns
- Zinc regrind product size is p80 35-50 microns
- Zinc conditioning an important to depress pyrite and pyrrhotite and minimise iron grades in zinc concentrate
- Zinc depressant in copper circuit important to minimise contamination

Figure 12 – View from Tails Storage Facility to Old Plant Site (Superior 2018)





Figure 13 – Close Up of Old Plant Site (Superior 2018)



The Project historically produced zinc concentrate grades range between 52 and 53.5% Zn. Copper concentrates range from 22 to 25% Cu. The majority of the recovered gold and silver report to the copper concentrate where they add the most value as part of the concentrate payables. Gold average around 11g/t and silver around 310g/t.

Superior will leverage off the significant infrastructure, 11 years of successful processing, and proven mining practices in the project restart planning it is advancing. With the adoption of new proven technologies that have been proven in the 20 years since operations ceased, in an environment of substantially higher metal price, Superior is now accelerating its Restart Feasibility.

Competent Person Statement

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves.

The Information contained in this announcement is an accurate representation of the available data and studies for the Pick and Winston Lake Projects.

The information contained in this announcement that relates to geology and exploration results is based, and fairly reflects, information compiled by Mr. Alfred Gillman, an independent consultant Superior Lake Resources Limited. Mr. Alfred Gillman is a Fellow and Chartered Professional of the Australian Institute of Mining and Metallurgy and was engaged as a consultant to Superior Lake Resources to complete the JORC (2012) resource. Mr. Gillman has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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. Gillman consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.



Appendix 1: About Nordmin Engineering Ltd www.nordmin.com

Nordmin Engineering Ltd. was founded in 2005 by Chris Dougherty.

The Nordmin Group of Companies is an EPC contracting group that specializes in total project solutions in the Mining, Energy, and Industrial Sectors. The Group includes a Consulting Engineering firm, a General Contractor and an Operations Management group and are based in Thunder Bay, Ontario, with offices in Sudbury, Ontario and Kamloops, British Columbia and Salt Lake City, Utah.

From initial concepts and project evaluations through to permitting, design and EPC solutions, Nordmin provides a cost and time efficient solution for projects of any size using our Integrated approach. In the few short years since its inception, Nordmin Engineering Ltd. has undertaken projects in North and South America, Africa, Europe, and Asia, and has worked for many of the world's largest mining companies, including BHP Billiton, Rio Tinto, and Vale. The Nordmin Group's projects have ranged in capital value from a few million dollars to \$3 Billion (U.S.), and continue to expand their client base worldwide.

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