

## TECHNICAL REPORT

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## Mineral Resource Estimate for the Donner Lake Lithium Property Manitoba, Canada

316,300 mE, 5,609,200 mN NAD 83 UTM Zone 15N

## Prepared for:

Grid Metals Corp. 3335 Yonge St. Suite 304 Toronto, ON, Canada, M5N 2M1

Report Date: 1<sup>st</sup> September, 2023 Effective Date: 27<sup>th</sup> June, 2023

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## Company

SGS Geological Services ("SGS") SGS Geological Services ("SGS") Ian Ward Consulting Services ("Ian Ward")

SGS Project # P2023-08

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## 1 SUMMARY

#### 1.1 Introduction

SGS Canada Inc. ("SGS") was contracted by Grid Metals Corp. ("Grid" or the "Company") to complete a Mineral Resource Estimate (MRE) for the Donner Lake Project (the Project or Property), located approximately 190 km southeast of Winnipeg, Manitoba, Canada, and to prepare a National Instrument 43-101 Technical Report (NI 43-101) in support of the MRE update.

Grid is headquartered in Toronto, Ontario and is a publicly traded Canadian exploration and development company listed on the TSX Venture Exchange ("TSXV"). The address of the head office is 3335 Yonge St. Suite 304, Toronto, ON, Canada, M5N 2M1 and the listing symbol is GRDM.

Grid Metals Corp. is focused on both lithium and Ni-Cu-PGM projects in the Bird River greenstone belt in southeastern Manitoba, approximately 150 km northeast of Winnipeg, Manitoba. The company controls two major lithium properties both with known high-grade lithium pegmatites: Donner Lake and Falcon West. The 75% owned Donner Lake Property is situated 35 km north of the producing Tanco mine, one of only two current lithium-producing mines in Canada. The Donner Lake and Falcon West properties are located in the traditional territory of the Sagkeeng First Nation.

The reporting of the MRE complies with all disclosure requirements for Mineral Resources set out in the NI 43-101 Standards of Disclosure for Mineral Projects (2016). The classification of the Mineral Resource is consistent with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards (2014 CIM Definition Standards) and adhere, as best as possible, to the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2019 CIM MRMR Guidelines).

## 1.2 **Property Description and Location**

The Property is in southeastern Manitoba, Canada, approximately 240 km by road to the northeast of the city of Winnipeg and 50 km northeast of the township of Lac du Bonnet (Figure 4-1). The Property is accessible by sealed provincial roads 313 and 314 from Lac du Bonnet.

The NAD83 UTM coordinates for the approximate centre of the Property is Zone 15N, 316,300 mE, 5,609,200 mN.

## 1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Property is located 120 km northeast of the Manitoba Capital of Winnipeg. Road access from Winnipeg is provided by paved roads to the community of Lac du Bonnet (110 km), and then from Lac du Bonnet via a series of all weather (mainly gravel) provincial and private roads to the Property (an additional 110 km).

Lac du Bonnet (population ~1,100) is a small agricultural community and summer tourism community with motels, restaurants, groceries and other basic services available year round. In addition, the City of Winnipeg offers a comprehensive range of services and supplies. Mining and mine support personnel are assumed to be available from neighboring First Nations Communities; the towns of Lac du Bonnet, Pinawa, Pine Falls and Bissett, in Manitoba; and from the nearby communities of Kenora and Red Lake in northwestern Ontario. The Tanco mine is located approximately 50 kilometres by road to the south of the Property.

The physiography of the Project area is typical of the Canadian Shield. It has a gentle rolling surface with elevations ranging from 300 m to 400 m above sea level with a maximum local relief variation around 15 m. The terrain consists of low rock outcrop ridges separated by low-lying areas containing muskeg swamp, small rivers, streams and beaver ponds.



Vegetation consists mainly of jackpine and hazel brush with minor white spruce and poplar trees in the positive relief areas, and willows, tamarack and black spruce in the gullies and muskeg areas.

The climate at the Property area is northern Canada temperate with long cold winters and short and hot summers. Average daily highs range from 20°C in July to -18°C in January. Mean annual precipitation in the general area ranges from 475 mm to 620 mm, with about 25% of the total falling as snow. Mean annual lake evaporation is approximately 435 mm and mean annual surface runoff is approximately 200 mm. Mining and drilling operations can be carried out year-round.

Three-phase power is potentially available to the Property from a Manitoba Hydro high voltage transmission line located approximately 12 km to the west. The Canadian Pacific Railway main line passes east-west through Molson and Whitemouth, 45 km south of Lac du Bonnet.

Sufficient surface rights for mining operations, potential waste rock storage and associated infrastructure are present on the Property. The Project area is accessed by a network of arterial and back country service roads. The Company has established a core logging and processing facility at its Makwa Nickel Property, located 30 km to the south of the Project.

The nearest major airport is in the city of Winnipeg with direct flights operating from domestic destinations as well as from international connecting hubs. Float plane and helicopter charter services are available in Lac du Bonnet.

#### 1.4 History

The first claims in the Mayville area were staked in 1917 by Mr. Amos May to cover a copper-nickel showing.

In 1921, Devlin Mining and Development Company Ltd. optioned the Mayville claims and enlarged the property base. Devlin drilled eight diamond drill holes (C1 to C8) totaling 558 m east and south of the M2 Zone – which is the largest known magmatic Cu-Ni-PGE deposit known on the current Grid Metals Mayville claims. From 1928 to 1944, several companies continued to explore at Mayville primarily for Ni-Cu.

In 1943, lithium exploration began in the area with claims staked by Peter Osis, southeast of the Mayville Ni-Cu work. This ground covered what became to be known as the Main Dyke (a Li-bearing pegmatite). Maskwa Nickel and Chrome Mining (MNCM) acquired the Mayville Property in 1951 and Falconbridge Nickel Mines Ltd., the majority shareholder MNCM, carried out numerous exploration efforts on the Property area until 1990. In 1955, the Main Dyke was optioned to Violamac Mines who drilled 32 holes for a drill length depth of 1395 m with an average grade of 1.28% Li. At the same time the Northwest Dyke was also drilled and an average grade of 1.25% Li was determined. The Violamac drilling supported an initial, non 43-101 compliant inferred 3.5 million tonnes grading 1.28% Li2O from the Main and Northwest dykes. In 1956 this ground was optioned to Lithia Mines and Chemical and they trenched and drill 34 holes totalling 3000 m. No logs or drill core were located for drilling completed prior to 1956.

In 1995, Exploratus Elementis Diversis Ltd. (Exploratus) purchased a 60% interest in the Maskwa-Mayville properties, targeting chromite mineralization and conducted vertical gradient and magnetic surveying, and drilled eight holes totaling 836 m.

During 2002 to 2006, Tanco conducted several Enzyme Leach soil surveys over the Tanco claims in the area and several small drill programs were undertaken to test anomalous areas for pegmatite potential.

In 2005, Mustang Minerals ("Mustang") purchased Exploratus' 60% interest in the Mayville Property and 72.6% of Maskwa Nickel and Chrome Mining, which at that time owned the remaining 40% of the Mayville Property. During 2010, Mustang optioned the SPOT and EILEEN claims (the Tanco claims) from the Tantalum Mining Corporation. During the summer and fall of 2013, Mustang Minerals carried out a field mapping and sampling program on the Property.

In 2016 Mustang acquired the Donner Lake Lithium Property from Tanco in return for granting a 2% Net Smelter Return Royalty and the right of Tanco to acquire products from the Property at commercial terms whether ore or concentrate.

In 2018 a 10 drill hole program was conducted on the Main Dyke. Mustang carried out 1154 metres of drilling on the Main Dyke to drill test the lithium potential of the Main Dyke (Grid Metal Assessment Report, 2011).

On March 09, 2018 Directors of Mustang Minerals Corp. approved the change its name to Grid Metals Corp. ("Grid"). Grid begun trading on the TSX Venture Exchange Inc. under the symbol GRDM effective June 8, 2018.

#### 1.5 **Geological Setting and Mineralization**

The pegmatites in the Project area occur within the larger Bird River greenstone belt of Manitoba, which is part of the Archean Superior Province (**Error! Reference source not found.**). This pegmatite field has been subdivided into two pegmatite districts (Cat Lake-Maskwa Lake in the north; Winnipeg river in the south) and subsequently into several different pegmatite groups according to their mineralogy, geochemistry and location (Černý et al., 1981).

Donner Lake area pegmatites are associated with the Cat Lake – Maskwa Lake group.

The Bird River greenstone belt has been subdivided into two distinct northern and southern panels. Both panels are composed of 2.75-2.72 Ga arc-type metavolcanic and associated metasedimentary rocks.

The deposits within the Project area are all considered to be examples of LCT-type pegmatites. The following deposit type descriptor for such pegmatites is summarised and abstracted from Bradley and McCauley (2013). All known LCT pegmatites are associated with convergent-margin or collisional orogens. LCT pegmatite maxima at ca. 2650, 1800, 525, 350, and 100 Ma correspond to times of collisional orogeny and, except for a comparatively minor peak at 100 Ma, to times of supercontinent assembly. The largest known deposits are Archean in age (Viana and al, 2003).

LCT pegmatites represent the most highly differentiated and last to crystallise components of certain granitic melts. Parental granites are typically peraluminous, S-type granites, although some Archean examples are metaluminous, I-type granites. LCT pegmatites are enriched in the incompatible elements' lithium, cesium, tin, rubidium, and tantalum, and are distinguished from other rare-element pegmatites by this diagnostic suite of elements.

### 1.6 **Exploration**

During the summer and autumn of 2022, Grid exploration teams, mapped and lithogeochemically sampled the lower southwest corner of the Grid claims, presently held under Ontario 1000078834.

In conjunction with the mapping, known pegmatites were stripped and sampled, with channel samples collected to support resource modeling of the shallow portions of the Main Dyke.

Included in the Property lithogeochemical review are pulps from the 2011-2013 Mayville Property bedrock sampling program. These pulps were resubmitted to the assay lab for re-analysis using the same geochemical lab method as was performed on the 2022 field lithological samples.

#### 1.7 **Drilling**

A total of 103 diamond drill holes and 25,046 m (excluding 5 channels on the Main Dyke) were completed between 1995 and 2023. Table 10-1 is a current summary showing all drilling completed by Grid Metals in 2018, 2022 and 2023.

Two holes were drilled by previous owners in 1995. Grid (Mustang) completed two holes in 2011 and three holes in 2013. Grid completed 11 holes in 2018, 47 holes in 2022 and 38 holes in 2023.

## 1.8 **Sample Preparation, Analysis and Security**

Samples were prepared on site after logging and entering the data into the database using Acquire software. Core was split in half using a core cutting saw on site. Half the core was left in the core box while the remaining half of the core was placed in sterile plastic bags accompanied by sample printed sample tag and shipped to Activation Laboratories Ltd. (Actlabs) in Thunder Bay, Ontario. All samples preparation included QA/QC program including systematic insertion of standards or certified reference materials (CRMs), blanks, core, and crush duplicates.

Core samples were prepared by Grid site geologists and shipped to Actlabs located in Thunder Bay, Ontario, Canada. Actlabs is an ISO-accredited (ISO:17025:2020) commercial laboratory and is completely independent of Grid. Diamond drilling samples were prepared at the Actlabs Thunder Bay facility. Sample pulps were analyzed using a sodium peroxide dilution method by the Actlabs laboratory in Ancaster, Ontario. Samples were dried (105°C), crushed (75% passing 3 mm sieve), homogenised, divided (Jones riffle splitter) and pulverised 250 to 300 g of sample in steel mill to 95% passing 150#. During the preparation process, Actlabs included their own blank and standard samples, as well as duplicates and replicate samples.

Certified reference materials and blanks are inserted into the sample stream, and all samples are bagged in sacks for transport. A control file, the laboratory sample dispatch form, includes the sack number and contained sample-bag numbers in each sack. The laboratory sample dispatch form accompanies the sample shipment and is used to control and monitor the shipment.

## 1.9 Data Verification

Faisal Sayeed, P.Geo., conducted an independent verification of the assay data in the drill sample database. Digital assay records were randomly selected and checked against the available laboratory assay certificate reports. Assay certificates were available for all diamond drilling completed by Grid Metals since the start of the drilling campaign in 2022. All deposit areas have been diamond drilled and the results of the diamond drilling completed by Grid Metals is considered representative of the Deposit. Sayeed reviewed the assay database for errors, including overlaps and gapping in intervals and typographical errors in assay values. Recommendations were made to fix some database related errors linking assays and assay certificates on hand. Verifications were also carried out on drill hole locations, down hole surveys, lithology, SG and topography information. Minor errors were noted and explained by Grid Metals during the validation process but have no material impact on the 2023 MRE presented in the current report. Sayeed has reviewed the sample preparation, analyses and security completed by Grid Metals on the Property. It is the Author's opinion, based on a review of all possible information, that the sample preparation, analyses and security used on the Project by Grid meet acceptable industry standards (past and current) and the drill data can be used for geological and resource modeling, and resource estimation of Inferred mineral resources.

## 1.10 Mineral Processing and Metallurgical Testing

Metallurgical testing of the Donner Lake deposits has been conducted in two phases using samples generated from 2018 and 2022 drilling of the two pegmatite veins Main Dyke and NW Dyke. The 2018 testing used coarse assay rejects of Main Dyke for testing and in 2022 drill core intervals from both Main

and NW dykes drilling were used to make composites for testing. The composites represent the areas which have been drilled to date.

Substantial mineralogical studies of composites from both crushed assay rejects plus drill core sections representing the drilled areas has been completed for both Main and NW Dykes to understand the important minerals present, liberation of the minerals of interest and particle size required for separation. Most of the lithium oxide is contained in spodumene for the NW Dyke and in the Main Dyke a small amount is replaced by petalite which impacts the metallurgical recovery.

Adequate metallurgical testing was completed using composites representing the drilled areas of the Dykes. Results indicate that a spodumene concentrate of close to or above 6% Li<sub>2</sub>O content, as required for commercial value, can be produced from each deposit and with a recovery of well above 70%. A fine grind below 140 µm and direct flotation produces the best recovery of Li<sub>2</sub>O. Heavy liquid separation, representing dense media separation in practice, was conducted and results indicate that this can reduce mass in the feed but results in lower overall lithium recovery. There is a definite indication that ore sorting by optical or magnetic methods could reduce iron content of the feed as well as mass and should be tested when larger composites can be produced.

#### 1.11 Mineral Resource Estimate

The Mineral Resource Estimate is reported in Table 1-1 using an  $Li_2O\%$  cut-off grade of 0.3 for open pit and 0.5 for underground. The mineral resources are constrained by the topography and based on the conceptual economic parameters detailed in Table 14-6. The estimate has an effective date of the 27<sup>th</sup> June, 2023. The Qualified Person for the estimate is Rohan Millar, P.Geo., an SGS employee.

Classification (Cut-Off Grade)	Deposit	Inferred Resource (tonnes)	Grade (Li <sub>2</sub> O%)
Open Pit	Main Dyke	1,145,000	1.48%
(0.3% Li <sub>2</sub> O)	NW Dyke	955,000	1.36%
	Total	2,100,000	1.42%
Underground	Main Dyke	3,669,000	1.45%
(0.5% Li <sub>2</sub> O)	NW Dyke	1,042,000	1.11%
	Total	4,710,000	1.37%
GLOBAL	Main Dyke	4,814,000	1.46%
	NW Dyke	1,997,000	1.23%
	Total	6,810,000	1.39%

(1) The Mineral Resource Estimate (MRE) has an effective date of the 27<sup>th</sup> June, 2023. The Qualified Person for the MRE is Mr. Rohan Millar, P.Geo., an employee of SGS.

(2) The classification of the current Mineral Resource Estimate into Inferred Resource is consistent with current 2014 CIM Definition Standards - For Mineral Resources and Mineral Reserves.

(3) All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.

(4) All Resources are presented undiluted and in situ, constrained by continuous 3D wireframe models, and are considered to have reasonable prospects for eventual economic extraction.

- (5) Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- (6) It is envisioned that parts of the Donner Lake deposit may be mined using open pit mining methods. In-pit mineral resources are reported at a cut-off grade of 0.3% Li2O within a conceptual pit shell.
- (7) The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.
- (8) Underground (below-pit) Mineral Resources are estimated from the bottom of the pit and are reported at a base case cut-off grade of 0.5% Li2O. The underground Mineral Resource grade blocks were quantified above the base case cut-off grade, below the constraining pit shell and within the constraining mineralised wireframes. At this base case cut-off grade the deposit shows good deposit continuity with no orphaned blocks.
- (9) Bulk density values (specific gravity 2.7 grams per cubic centimetre) were determined based on physical test work from each deposit.
- (10) The in-pit base case cut-off grade of 0.3% Li₂O considers a lithium concentrate 6% (LC6) Li2O price of US\$1800/tonne, a mining cost of US\$3.50/t rock and processing, treatment and refining, transportation and G&A cost of US\$45.00/t mineralised material, and an overall pit slope of 55 degrees.
- (11) The below-pit base case cut-off grade of 0.5% Li<sub>2</sub>O considers a lithium concentrate 6% (LC6) Li2O price of US\$1800/tonne, a mining cost of US\$60.00/t rock and processing, treatment and refining, transportation, and G&A cost of US\$45.00/t mineralised material.



(12) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

## 1.12 **Conclusion and Recommendations**

Millar and Sayeed consider that the Donner Lake deposit contains an open pit and underground mineral resource that is associated with a well-defined mineralised model.

Millar and Sayeed consider the Property to have potential for delineation of additional mineral resources and that further exploration is warranted.

Exploration field work has been undertaken by Grid on the Property for summer 2023, comprising a geological mapping and soil sampling program across the Property, at an estimated cost of \$300,000.

Grid have also proposed a 4,000 m diamond drill program for Q4 2023 extending into Q1 2024. The program would run over 3 months and comprise a 1-2 rig exploration drill program (Nov-Jan approximately) targeting near surface pegmatite occurrences mainly near the Main and NW dykes (e.g., South dykes, SW dykes, High Grade dyke) and potential near surface pegmatites inferred from geochemical anomalies (rock +/- soil +/- vegetation). The total cost of the program is estimated at \$928,000 including a 15% contingency.

Millar and Sayeed have reviewed the proposed programs for further work on the Property and, considering the observations made in this report, support the concepts as outlined by Grid. Given the prospective nature of the Property, it is the opinion of Millar and Sayeed that the Property merits further exploration and that Grid's proposed plans for further work are justified.

Millar and Sayeed recommend that Grid conducts the proposed exploration, subject to funding and any other matters which may cause the proposed exploration programs to be altered in the normal course of its business activities or alterations which may affect the program as a result of exploration activities themselves.

## 2 INTRODUCTION

SGS Canada Inc. ("SGS") was contracted by Grid Metals Corp. ("Grid" or the "Company") to complete a Mineral Resource Estimate (MRE) for the Donner Lake Project (the Project or the Property), located approximately 120 km northeast of Winnipeg, Manitoba, Canada, and to prepare a National Instrument 43-101 Technical Report (NI 43-101) in support of the MRE update.

Grid is headquartered in Toronto, Ontario and is a publicly traded Canadian exploration and development company listed on the TSX Venture Exchange ("TSXV"). The address of the head office is 3335 Yonge St. Suite 304, Toronto, ON, Canada, M5N 2M1 and the listing symbol is GRDM.

Grid Metals Corp. is focused on both lithium and Ni-Cu-PGM projects in the Bird River greenstone belt in southeastern Manitoba, approximately 150 km northeast of Winnipeg, Manitoba. The company controls two major lithium properties both with known high-grade lithium pegmatites: Donner Lake and Falcon West. The 75% owned Donner Lake Property is situated 35 km north of the producing Tanco mine, one of only two lithium-producing mines in Canada. The Donner Lake Property is located on the traditional territory of the Sagkeeng First Nation.

The reporting of the MRE complies with all disclosure requirements for Mineral Resources set out in the NI 43-101 Standards of Disclosure for Mineral Projects (2016). The classification of the Mineral Resource is consistent with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards (2014 CIM Definition Standards) and adhere, as best as possible, to the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2019 CIM MRMR Guidelines).

## 2.1 Terms of Reference

This Report is based, in part or in full, on internal reports and information as listed in Item 27 of this Report. If sections from reports authored by other consultants have been directly quoted in this Report, these are indicated as such in the Report sections.

This Technical Report is prepared according to National Instrument 43-101 guidelines for mineral deposit disclosure and describes recent and historical exploration, mineralisation types and mineral potential of the project. Recommendations are presented for further exploration work.

This Technical Report will be used by Grid in fulfillment of their continuing disclosure requirements under Canadian securities laws, including National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). This Technical Report is written in support of an MRE completed for Grid.

#### 2.2 Effective Dates

The Effective Date of the current MRE is June 27, 2023.

#### 2.3 **Qualified Persons**

This Technical Report was prepared for Grid by or under the supervision of the following Qualified Persons (QP):

- Rohan Millar, B.Sc., P.Geo., Senior Geologist SGS Geological Services
- Faisal Sayeed, P.Geo, Senior Geologist SGS Geological Services
- Ian Ward, P.Eng., Ian Ward Consulting Services

## 2.4 Site Visit

A site visit to the Donner Lake Project of Grid was conducted by Faisal Sayeed, P.Geo., an employee of SGS, on June 7<sup>th</sup>, 2023. The site visit included a meeting with site geologists, visit to the core shed, review of pulp library, core storage area and storage facility for crushed rejects. During the site visit, Sayeed met with Grid Metals senior project geologist Mr. Bruce Brownlee and Grid Metals project geologist Mr. Kai Roberts and visited drill hole locations and outcrop locations on the Property.

## 2.5 Currency, Units, Abbreviations and Definitions

SI (Système International ) metric units are used in the report.

All currency amounts are stated in US dollars (US\$) unless otherwise stated

\$	Dollar sign	Li	Lithium (elemental)
%	Percent sign	Li <sub>2</sub> CO <sub>3</sub>	Lithium Carbonate
o	Degree	LCE	Lithium Carbonate Equivalent
°C	Degree Celsius	Li <sub>2</sub> O	Lithium Oxide
μm	micron	m	Metres
AA	Atomic absorption	m²	Square metres
Az	Azimuth	m <sup>3</sup>	Cubic metres
CAD\$	Canadian dollar	masl	Meters above sea level
cm	centimetre	MRE	Mineral Resource Estimate
cm <sup>2</sup>	square centimetre	Mt	Million tonnes
cm <sup>3</sup>	cubic centimetre	NAD 83	North American Datum of 1983
DDH	Diamond drill hole	NQ	Drill core size (4.8 cm in diameter)
g	Grams	ppm	Parts per million
GPS	Global Positioning System	QA	Quality Assurance
Ha	Hectares	QC	Quality Control
HQ	Drill core size (6.3 cm in diameter)	QP	Qualified Person
ICP	Induced coupled plasma	SG	Specific Gravity
kg	Kilograms	Tonnes	Metric tonnes
km	Kilometres	US\$	US Dollar
km <sup>2</sup>	Square kilometre	UTM	Universal Transverse Mercator

Table 2-1: List of Abbreviations used in the Report

## 2.6 **Sources of Information**

The data used in the estimation of the MRE and the development of this report was provided to SGS on behalf of Grid by Paul Stacey of MapIT on the 14<sup>th</sup> April 2023.

The current report is based upon descriptive material from government and academic sources that are relevant to the Property and publicly available assessment reports. The current Technical Report is based on the following data:

• Geological information and historical exploration data from the Open File Assessment Reports filed with the Manitoba Geological Survey and the Manitoba Mines Branch,



- Site visit by Faisal Sayeed on the 7<sup>th</sup> June, 2023
- Academic literature and assessment reports listed in the References section of this report.

Millar and Sayeed have carefully reviewed the Property information and assume that all of the information and technical documents reviewed and listed in Section 27 of this report are accurate and complete in all material aspects. Millar and Sayeed believe the information used to prepare this Technical Report is valid and appropriate considering the status of the Property and the purpose of the current Technical Report.

## **3** RELIANCE ON OTHER EXPERTS

Information concerning claim status, ownership and/or any underlying agreements which are presented in Section 4 below has been provided to the Authors by way of e-mail on or before the 28<sup>th</sup> August 2023 by Carey Galeschuk the VP of Lithium Exploration for Grid. The Authors reviewed the land tenure in a preliminary fashion and have not independently verified the legal status or ownership of the Property or any underlying agreements. However, the Authors have no reason to doubt that the title situation is other than what is presented in this technical report. The Authors are not qualified to express any legal opinion with respect to Property titles or current ownership.

## **4 PROPERTY DESCRIPTION AND LOCATION**

#### 4.1 Location

The Property is in southeastern Manitoba, Canada, approximately 120 km northeast of the city of Winnipeg and 50 km northeast of the Township of Lac du Bonnet (Figure 4-1). The Property is accessible by sealed provincial roads 313 and 314 from Lac du Bonnet.

The NAD83 UTM coordinates for the approximate centre of the Property is Zone 15N, 316,300 mE, 5,609,200 mN.





#### 4.2 Mineral Tenure

The Donner Lake Project consists of 47 claims in the holder name of 1000078824 Ontario Inc. These claims are listed in Table 4-1. The total hectares of that group of claims is 5988 hectares.

Another 4 claims (Table 4-2) are presently held in the name of Grid Metals Corp (668 hectares) and are in the process of being transferred to 1000078824 Ontario Inc.

Figure 4-2 shows the location of the Grid claims.

Disposition	Disposition		Disposition	Disposition/Lease	Мар		Good To	Term		
Number	Name	Holder	Туре	Туре	Number	Issue Date	Date	Expiry Date	Area (ha)	Status
MB11203	YNOT 2	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2013-01-10	2024-01-10	2024-03-10	144	GOOD STANDING
MB11204	YNOT 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2013-01-10	2024-01-10	2024-03-10	144	GOOD STANDING
MB9516	MUM 18	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11NW	2010-01-20	2024-01-20	2024-03-20	123	GOOD STANDING
W53816	ANNA	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1998-01-27	2024-01-27	2024-03-27	64	GOOD STANDING
W53934	JUNKO	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1998-01-27	2024-01-27	2024-03-27	77	GOOD STANDING
MB9520	MAYFLY	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2010-02-17	2024-02-17	2024-04-17	143	GOOD STANDING
MB12496	GRID 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2018-02-22	2024-02-22	2024-04-22	200	GOOD STANDING
MB12497	GRID 2	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2018-02-22	2024-02-22	2024-04-22	192	GOOD STANDING
MB12498	GRID 3	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2018-02-22	2024-02-22	2024-04-22	176	GOOD STANDING
MB12499	GRID 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2018-02-22	2024-02-22	2024-04-22	256	GOOD STANDING
MB13876	GRID 9	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-03-01	2024-03-01	2024-04-30	96	GOOD STANDING
MB1672	CINA 1 F	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1998-03-09	2024-03-09	2024-05-08	2	GOOD STANDING
MB1681	CINA 2 F	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1998-03-09	2024-03-09	2024-05-08	2	GOOD STANDING
MB10064	MUS 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12NE	2011-04-08	2024-04-08	2024-06-07	70	GOOD STANDING
MB10065	MUS 2	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2011-04-08	2024-04-08	2024-06-07	85	GOOD STANDING
MB10066	MUS 3	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12NE	2011-04-08	2024-04-08	2024-06-07	256	GOOD STANDING
MB10067	MUS 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2011-04-08	2024-04-08	2024-06-07	128	GOOD STANDING
MB10068	MUS 5	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12NE	2011-04-08	2024-04-08	2024-06-07	256	GOOD STANDING
MB10069	MUS 6	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12NE	2011-04-08	2024-04-08	2024-06-07	256	GOOD STANDING
MB1978	MAY 8	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12NE	2001-04-11	2024-04-11	2024-06-10	64	GOOD STANDING
MB11100	YNOT 5	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2013-04-16	2024-04-16	2024-06-15	240	GOOD STANDING
MB11201	YNOT 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2013-04-16	2024-04-16	2024-06-15	256	GOOD STANDING
MB11202	YNOT 3	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2013-04-16	2024-04-16	2024-06-15	40	GOOD STANDING
MB14891	GRID 10	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-04-28	2024-04-28	2024-06-27	120	GOOD STANDING
MB14892	GRID 11	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-04-28	2024-04-28	2024-06-27	248	GOOD STANDING
MB14895	GRID 12	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-04-28	2024-04-28	2024-06-27	144	GOOD STANDING
MB14897	GRID 14	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-04-28	2024-04-28	2024-06-27	192	GOOD STANDING
MB14896	GRID 13	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2022-05-03	2024-05-03	2024-07-02	192	GOOD STANDING
MB14898	GRID 15	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	2NE, 52L1	2022-05-03	2024-05-03	2024-07-02	192	GOOD STANDING
MB9738	MAYFLY 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2010-06-07	2024-06-07	2024-08-06	100	GOOD STANDING
W53238	EILEEN 3	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1982-06-11	2024-06-11	2024-08-10	141	GOOD STANDING
MB5946	MUM 17	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2005-06-17	2024-06-17	2024-08-16	256	GOOD STANDING
MB3904	CAT 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L11SW	2002-07-19	2024-07-19	2024-09-17	136	GOOD STANDING
MB3923	SPOT 6	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2005-08-05	2024-08-05	2024-10-04	92	GOOD STANDING
MB3919	SPOT 2	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2002-08-21	2024-08-21	2024-10-20	85	GOOD STANDING
MB3920	SPOT 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2002-08-21	2024-08-21	2024-10-20	65	GOOD STANDING
MB3921	SPOT 3	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	2NE, 52L1	2002-08-21	2024-08-21	2024-10-20	247	GOOD STANDING
MB7744	MUMCAT 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	1NW, 52L1	2007-08-28	2024-08-28	2024-10-27	114	GOOD STANDING
MB7745	MUMCAT 2	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	1SW, 52L1	2007-08-28	2024-08-28	2024-10-27	240	GOOD STANDING
W53239	SPOT 4	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1992-09-04	2024-09-04	2024-11-03	61	GOOD STANDING
W53240	SPOT 5	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	1992-09-04	2024-09-04	2024-11-03	57	GOOD STANDING
MB3040	DON 1	100% (259978) 1000078824 ONTARIO INC.	Mineral	Mining Claim	52L12SE	2001-03-07	2032-03-07	2032-05-06	36	GOOD STANDING

Table 4-1: List of Donner Lake Claims held by	v 1000078824 Ontario Inc

#### Table 4-2: List of Donner Lake Claims held by Grid

Disposition	Disposition		Disposition	Disposition/	Мар		Good To	Term		
Number	Name	Holder	Туре	Lease Type	Number	Issue Date	Date	Expiry Date	Area (ha)	Status
MB13872	GRID 5	100% (259408) Grid Metals Corp.	Mineral	Mining Claim	52L12SE	2021-12-20	2023-12-20	2024-02-18	176	GOOD STANDING
MB13873	GRID 6	100% (259408) Grid Metals Corp.	Mineral	Mining Claim	52L12SE	2022-01-03	2024-01-03	2024-03-03	102	GOOD STANDING
MB13874	GRID 7	100% (259408) Grid Metals Corp.	Mineral	Mining Claim	52L12SE	2022-01-20	2024-01-20	2024-03-20	144	GOOD STANDING
MB13875	GRID 8	100% (259408) Grid Metals Corp.	Mineral	Mining Claim	52L12SE	2022-01-20	2024-01-20	2024-03-20	246	GOOD STANDING



Figure 4-2: Map showing location of Donner Lake Claims

## 4.3 Surface Rights

Under the Manitoba Surface Rights Act CCSM c. S235 (1987), whoever holds the mineral rights to a property is entitled to access the land, to work and remove the minerals. To gain access, operators must enter into a leasing agreement with the owner who holds title to the land and with the occupant who leases the land. If the negotiation of a leasing agreement is not achieved, the operator may apply to The Surface Rights Board for an order permitting access to the land.

It is Millar and Sayeed's opinion that the area of the Property is sufficient for an eventual mining operation with all required installations for mining personnel, potential tailings storage areas, potential waste disposal areas, potential ore stockpiles and potential processing plant site.

## 4.4 Agreements

On the 14<sup>th</sup> January, 2022, Grid announced a funding agreement with Lithium Royalty Corp (now Li Equities Investments LP ("Li Equities")). The agreement consisted of private placement financing, royalty sales on two properties pertaining to lithium minerals and asset sales of 25% interests in lithium rights on the two properties (Mayville Lithium and Campus Creek). The Mayville Lithium Property hosts the Donner Lake project.

Under the agreement, a joint venture for each project was formed with each party funding their respective (75%/25%) interest. Further under the agreement, a party diluting to less than a 5% interest will convert to a 1% NSR. Grid is the project operator of the JV.

Grid have an Exploration Agreement in place with Sagkeeng First Nation in whose un-surrendered Traditional and Ancestral Territory the Donner Lake Project is located.

## 4.5 **Royalties and Encumbrances**

The agreement with Li Equities provides a 2% gross overriding royalty on lithium and rare metals from the Donner Lake Property.



The Tantalum Mining Corporation of Canada ("Tanco"), a division of Sinomine Resource Group, hold a 2% Net Smelter Return (NSR) royalty and the right to acquire products from the Property at commercial terms whether ore or concentrate as part of the sale of the Donner Lake Property to Grid in 2016.

## 4.6 **Permits and Authorisations**

On the 2<sup>nd</sup> August 2023, Grid submitted an application for an Advanced Exploration Permit (AEP) on the Property. This permit is currently being reviewed.

The AEP will enable certain site infrastructure to be constructed and the extraction of up to a 50,000-tonne bulk sample for metallurgical test work. The permit has been submitted with the support of the Sagkeeng First Nation in whose Traditional Territory the project is located.

Surface exploration is allowed on the property without an exploration permit.

#### 4.7 Environmental Considerations

Grid has advised SGS that, to the best of their knowledge, there are no outstanding or pending adverse environmental issues attached to the Property. No mining or other potentially disruptive work has been carried out, on the Property, beyond the exploration activities described in this report.

## 4.8 **Other Relevant Factors**

To the extent known, Millar and Sayeed are unaware of any other significant factors and risks that may affect access, title, or the right, or ability to perform the exploration work recommended for the Property.

# 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

### 5.1 Accessibility

The Property is located 120 km to the northeast of the Manitoba Capital of Winnipeg. Road access from Winnipeg is provided by paved roads to the community of Lac du Bonnet (110 km), and then from Lac du Bonnet via a series of all weather (mainly gravel) provincial and private roads to the Property (an additional 110 km).

Lac du Bonnet (population ~1,100) is a small agricultural community and summer tourism community with motels, restaurants, groceries and other basic services available year round. In addition, the City of Winnipeg offers a comprehensive range of services and supplies. Mining and mine support personnel are assumed to be available from neighboring First Nations Communities; the towns of Lac du Bonnet, Pinawa, Pine Falls and Bissett, in Manitoba; and from the nearby communities of Kenora and Red Lake in northwestern Ontario. The Tanco mine is located approximately 50 kilometres by road to the south of the Property.

## 5.2 **Physiography and Climate**

The physiography of the Project area is typical of the Canadian Shield. It has a gentle rolling surface with elevations ranging from 300 m to 400 m above sea level with a maximum local relief variation around 15 m. The terrain consists of low rock outcrop ridges separated by low-lying areas containing muskeg swamp, small rivers, streams and beaver ponds.

Vegetation consists mainly of jackpine and hazel brush with minor white spruce and poplar trees in the positive relief areas, and willows, tamarack and black spruce in the gullies and muskeg areas.

The climate at the Property area is northern Canada temperate with long cold winters and short summers. Average daily highs range from 20°C in July to -18°C in January. Mean annual precipitation in the general area ranges from 475 mm to 620 mm, with about 25% of the total falling as snow. Mean annual lake evaporation is approximately 435 mm and mean annual surface runoff is approximately 200 mm. Mining and drilling operations can be carried out year-round.

## 5.3 Local Resources and Infrastructure

Three-phase power is potentially available to the Property from a Manitoba Hydro high voltage transmission line located approximately 12 km to the west. The Canadian Pacific Railway main line passes east-west through Molson and Whitemouth, 45 km south of Lac du Bonnet.

Sufficient surface rights for mining operations, potential waste rock storage and associated infrastructure are present on the Property. The Project area is accessed by a network of arterial and back country service roads. The Company has established a core logging and processing facility on site.

The nearest major airport is in the city of Winnipeg with direct flights operating from domestic destinations as well as from international connecting hubs. Float plane and helicopter charter services are available in Lac du Bonnet.

## 6 **HISTORY**

The first claims in the Mayville area were staked in 1917 by Mr. Amos May to cover a copper-nickel showing.

In 1921, Devlin Mining and Development Company Ltd. optioned the Mayville claims and enlarged the property base. Devlin drilled eight diamond drill holes (C1 to C8) totaling 558 m east and south of the M2 Zone. From 1928 to 1944, several companies continued to explore at Mayville primarily for Ni-Cu.

In 1943, lithium exploration began in the area with claims staked by Peter Osis, southeast of the Mayville Ni-Cu work. This ground covered what became to be known as the Main Dyke (a Li-bearing pegmatite). Maskwa Nickel and Chrome Mining (MNCM) acquired the Mayville Property in 1951 and Falconbridge Nickel Mines Ltd., the majority shareholder MNCM, carried out numerous exploration efforts on the property area until 1990. In 1955, the Main Dyke was optioned to Violamac Mines who drilled 32 holes for a drill length depth of 1395 m with an average grade of 1.28% Li.

At the same time the Northwest Dyke was also drilled and an average grade of 1.25% Li was determined. The Violamac drilling supported an initial, non 43-101 compliant inferred 3.5 million tonnes grading 1.28% Li2O from the Main and Northwest dykes. In 1956 this ground was optioned to Lithia Mines and Chemical and they trenched and drill 34 holes totalling 3000 m. No logs or drill core were located for drilling completed prior to 1956.

In 1995, Exploratus Elementis Diversis Ltd. (Exploratus) purchased a 60% interest in the Maskwa-Mayville properties, targeting chromite mineralization and conducted vertical gradient and magnetic surveying, and drilled eight holes totaling 836 m. During 2002 to 2006, Tanco conducted several Enzyme Leach soil surveys over the Tanco claims in the area, and several small drill programs were undertaken to test anomalous areas for pegmatite potential.

In 2005, Mustang Minerals ("Mustang") purchased Exploratus' 60% interest in the Mayville Property and 72.6% of Maskwa Nickel and Chrome Mining, which at that time owned the remaining 40% of the Mayville Property. During 2010, Mustang optioned the SPOT and EILEEN claims (the Tanco claims) from the Tantalum Mining Corporation.

During the summer and fall of 2013, Mustang Minerals carried out a field mapping and sampling program on the Property.

In 2016 Mustang acquired the Donner Lake Lithium Property from Tanco in return for granting a 2% Net Smelter Return Royalty and the right of Tanco to acquire products from the Property at commercial terms whether ore or concentrate.

In 2018 a 10 drill hole program was conducted on the Main Dyke. Mustang carried out 1,154 metres of drilling on the Main Dyke to drill test the lithium potential of the Main Dyke (Grid Metal Assessment Report, 2011).

On March 09, 2018 Directors of Mustang Minerals Corp. approved the change its name to Grid Metals Corp. ("Grid"). Grid begun trading on the TSX Venture Exchange Inc. under the symbol GRDM effective June 8, 2018.

## 6.1 Historical Exploration

Diamond drilling was undertaken on the Property in 1995, 2011 and 2013. Grid undertook a drilling program on the Property in 2018.

## 7 GEOLOGICAL SETTING AND MINERALISATION

## 7.1 Regional Geology

The pegmatites in the Project area occur within what is generally described as the northern portion of the Bird River greenstone belt of Manitoba, which occupies the westernmost edge of the Archean Superior Province (Figure 7 1).



Figure 7-1: Simplified Geology of the Northwestern Superior Province with Location of the Bird River Greenstone Belt (*Percival et al. (2006) and Stott et al. (2010*)

The Bird River greenstone belt is divided into northern and southern limbs separated by a core of primarily older basement felsic to intermediate orthogneiss but locally including late tectonic felsic intrusive bodies. The Donner Lake Property is located in the narrower, northern limb of the northern portion of the Bird River belt and abuts against the Late Archean Maskwa Lake Batholith in the south and basement orthogneiss units in the north. Pegmatites in the Bird River belt have been subdivided into two pegmatite districts: (1) Cat Lake-Maskwa Lake in the north; and, (2) Winnipeg River in the south. These pegmatite districts have been further subdivided into several different pegmatite groups according to their mineralogy, geochemistry and location (Černý et al., 1981). The Donner Lake area pegmatites are associated with the Cat Lake-Maskwa Lake pegmatite district (Černý et al. (1981).





#### Figure 7-2: Regional Geology of the Bird River greenstone belt (Yang, et. al. 2013).

The Bird River greenstone belt has been subdivided into two distinct northern and southern panels based primarily on geological mapping and geochemical studies focused on the area between Lac du Bonnet in the north and west, Bird Lake in the north and east, and the Winnipeg River in the south (Figure 7-2). Both panels are composed of 2.75-2.72 Ga arc-type metavolcanic and associated metasedimentary rocks. The



northern panel comprises the Northern Mid Ocean Ridge Basalt- (MORB) type formation, the Peterson Creek Formation, and the Diverse Arc Assemblage. The Northern MORB-type formation is an approximately 3 km wide, south facing, monoclinal sequence of pillowed basalt and synvolcanic gabbro (locally associated with sulphide mineralization) with subordinate basalt flow-breccia and mafic tuff (Gilbert et al., 2008). It is considered to be the oldest part of the supracrustal sequence in the Bird River belt with an inferred maximum age 2852.8  $\pm$  1.1 Ma. The Northern-MORB type formation is interpreted to represent either a back-arc basin basalt, derived from a primitive, depleted mantle source, or a remnant of lithosphere from a former ocean basin (Gilbert et al., 2008). It is intruded by the ca. 2743  $\pm$  0.5 Ma Bird River Sill (Scoates and Scoates, 2013), a layered ultramafic to mafic intrusion with associated Ni-Cu deposits and occurrences and several occurrences of stratiform chromite mineralization (Mealin, 2008). The Peterson Creek Formation and the Diverse Arc Assemblage are comprised of felsic to intermediate massive and fragmental volcanics rock units with subordinate basaltic flows all having calc-alkaline geochemical compositions (Gilbert et al., 2008).

The Southern Panel contains the Eaglenest and Lamprey Falls Formation and is considered the southern margin of the supracrustal sequence (Černý et al., 1981). It is a ~600 m thick, south-facing sequence of greywacke-siltstone and turbiditic sediments, consisting of poorly bedded and poorly sorted, steeply dipping, mafic volcaniclastic and pebbly wackes interbedded with quartzofeldspathic volcaniclastic sandstone (Trueman, 1980). The Southern MORB-type formation is an approximately 2.5 km thick, northfacing succession, composed primarily of aphyric pillowed basalt with MORB-like geochemical affinities, and related gabbro. Several units of chert-magnetite, banded iron formation occur locally within the Southern MORB-type formation (Gilbert et al., 2008). These units are up to 25 m thick and can be traced laterally for up to 500 m; locally associated with zones of pervasive alteration and associated pyritepyrrhotite-chalcopyrite mineralization. The Eaglenest Lake Formation is in fault contact with the south panel MORB basalt (Černý et al., 1981) hence age and relationship to the Eaglenest Lake Formation and the Southern MORB-type formation is uncertain. The Southern MORB-type formation basalts are intruded by the sigmoidal-shaped Birse Lake granodiorite pluton dated at 2723.2 ± 0.7 Ma, which represents a minimum age for volcanism. These basalts are interpreted to be from juvenile mantle source associated with arc rifting, possibly penecontemporaneous with the onset of the crustal extension suggested for the overlying south panel arc-type sequence (Gilbert et al., 2008).

The northern and southern panels are separated by the Booster Lake Formation, a turbidite sequence with classic Bouma-type features with clastic sedimentary rocks of the Flanders Lake ( $<2712 \pm 17$  Ma, Gilbert, 2006), (Gilbert, 2006, Field Trip Guidebook FT-C1 2013).

In the Donner Lake area, the narrow exposures of greenstone belt strata are divided into a predominantly tholeiitic basalt package (Donner Lake area) and a mixed metasediment-metavolcanic sequence (Cat Lake area; see Fig. 7-2). Although these greenstone units have been tentatively assigned to the northern limb of the northern panel of the Bird River belt, they have not been definitively correlated with any of the aforementioned stratigraphic formations within either the northern or southern panels of the belt. Accordingly, they may represent a distinctive volcano-sedimentary domain.

## 7.2 **Property Geology**

The generalised geology of the Donner Lake Property is illustrated in Figure 7-3. The Property is underlain by supracrustal rocks that are tentatively assigned to the northern limb of the north panel of the Bird River greenstone belt, and by older basement felsic to intermediate units of the TTG suite (tonalite, trondhjemite, granodiorite) as described by Yang (Yang, et al, 2012). The supracrustal rocks of the Bird River belt

exposed at the Property principally include metamorphosed (greenschist to amphibolite facies) massive and pillow basalt. The metavolcanic units are locally intruded by mafic to ultramafic intrusive bodies including the Mayville Intrusion, a 5 km long and 1 km thick predominantly mafic intrusion that hosts Grid's M2 Cu-Ni-PGE magmatic sulfide deposit (RPA Associates Inc., 2014). The Mayville Intrusion is located approximately 2 km to the north of the Northwest Dyke. The mafic metavolcanic units and the younger mafic-ultramafic intrusives are in turn intruded by a series of LCT-type pegmatite dykes and by less fractionated felsic plutonic bodies of uncertain age. The Main and Northwest dykes are the best documented LCT-type pegmatites (Figure 7-4) on the Property and are the subject of the current inferred mineral resource estimate. Most of the mapped pegmatites on the Property are narrow, show sub-vertical orientations, and either southwest-northeast or east-west strike directions. Numerous other pegmatites occur in the project area and vary in size, orientation and mineralogy. These are presently being explored.



Figure 7-3: Local Geology Map covering the Mayville nickel and Donner Lake lithium properties. Rectangle is the area covered by Figure 7-4.

## 7.3 Mineralization: LCT-type Pegmatites at the Donner Lake Property

Based on geological mapping and lithogeochemical data, strongly lithium-enriched pegmatite bodies are concentrated in the central part of the Donner Lake Property and include the well documented Main and Northwest dykes and the less well documented Southwest, High-Grade and West dykes (see Figure 7-4). Numerous other LCT-type and simple pegmatite dykes have been discovered on the Property and are the subject of ongoing field investigations being carried out by the Company. The pegmatites are generally exposed in low rounded outcrops. The exposed pegmatites generally exhibit a strike at a direction of 40° to 55°. The pegmatite contact exposed in the northeast portion of the Main Dyke has a steep dip of 80° to

the northwest. In the southern portion of the Main Dyke, the dip shallows to around 70°. In the Northwest Dyke, the dip is close to vertical.

The Main Dyke comprises a steeply northwest dipping spodumene-rich core zone averaging ~3 metres thick encased by narrower, lower-grade wall zones averaging a few cm to tens of cm thick and inconsistently developed on both the footwall and hangingwall parts of the dyke. The Main Dyke has a drill defined a strike length of ~ 1300 m and a minimum vertical extent of 350 metres. It remains open at depth and, in part, along strike to both the northeast and to the southwest. Mapping and magnetic survey data indicate that potential strike extensions to the Main Dyke may have been displaced along one or more northwest striking faults that are observed or inferred throughout the Property.

Surface outcrops of the Main Dyke form narrow, pinching and swelling bodies attaining about 550 m in length and between 3 and 5 m in width. The Main Dyke consists of at least three closely spaced parallel bodies irregularly overlapping along strike. One of the bodies occurs appears to be a splay off the Main Dyke and occurs in the immediate hangingwall to the Main Dyke. It is herein referred to as the Hangingwall Dyke. A small portion of the current inferred mineral resource estimate for the Property is attributed to the Hangingwall Dyke but it remains to be fully characterised in terms of its depth extent and near surface resource potential. The other sub-parallel, minor pegmatite dykes adjacent to the Main Dyke range in thickness from <1 to several metres but typically having low to negligible lithium grades and are not included in the current inferred mineral resource estimate. The contacts between the Main Dyke and the country rocks are sharp and marked by local patches of holmquistite.



Figure 7-4: Geological Map of the central part of the Donner Lake Property showing the location of the currently known LCT-type pegmatite bodies. The area covered by this map is shown in Figure 7-3.

The Northwest Dyke is a near vertical, tabular pegmatite body that displays a similar internal mineralogy and texture to the Main Dyke. It is poorly exposed such that most of the current understanding of its size, geometry and lithium grade variability comes from recent drilling completed by Grid. The Northwest Dyke has a drill defined strike length of approximately 650 metres and a minimum vertical extent of 300 metres. It is partly open along strike to the northeast and southwest and is open at depth. It averages 4 metres in thickness. It also has sharp contacts with the mafic metavolcanic or gabbro host rocks and show visually and mineralogically distinctive marginal phases that may include thin biotite selvages and holmquistite.



Other LCT-type pegmatites present in the central part of the Property lack adequate characterization owing to a lack of drilling and/or poor exposure.

Generally, both the Main and Northwest dykes have a narrow wall zone of pink albite, quartz and in places, fine-grained muscovite. The major portion of both pegmatites consists of greyish white spodumene in a matrix of albite, microcline feldspar and quartz. The Northwest Dyke is not as consistent in its mineralogy as the Main Dyke and contains more frequent, irregular 'patches' of quartz and muscovite. The spodumene in both dykes occurs as bladed to acicular crystals that typically range from 10 to 80 millimeters in length and 3 to 6 millimeters in width. Abundant finer-grained spodumene is present in both dykes, commonly in spodumene-quartz intergrowths ("SQUI"). The pegmatites show no major mineralogical zonation or alteration other than small changes in their mineralogy particularly at or near the contact zones with the host rocks. The spodumene in both dykes tends to be very consistent in colour and form. Both the Main and Northwest dyke pegmatites are considered to be a part of the spodumene-albite subtype of the LCT-type pegmatite classification scheme as defined by Černý (Černý et al. 1981).

## 7.4 Structure

It is generally accepted that there are some structural controls on the location and emplacement of granitic pegmatite bodies. Although the known pegmatites in the project area have not been observed to occupy major shear zones, they may have exploited other types of (more subtle) regional structures such as brittle fault zones or tension fractures. Černý (1981) noted that the major structural breaks noted in the Maskwa Lake Batholith to the south of the Donner Lake Pegmatites appear to track into the host greenstone belt units and generally follow the same, northeast strike direction as the Donner Lake Pegmatites.

## 8 DEPOSIT TYPES

The Province of Manitoba in Canada is well endowed in lithium, particularly the type associated with granitic pegmatites. One of the most prolific regions in Manitoba is the Winnipeg River–Cat Lake pegmatite field, hosting some large world-class lithium-cesium-tantalum deposits.

Granitic pegmatite contains the largest known resources of lithium in Manitoba. Spodumene, petalite and lepidolite are the most common lithium-bearing minerals in this type of deposit.

The deposits within the Project area are all considered to be examples of LCT-type pegmatites. The following deposit type descriptor for such pegmatites is summarised and abstracted from Bradley and McCauley (2013). All known LCT pegmatites are associated with convergent-margin or collisional orogens. LCT pegmatite maxima at ca. 2650, 1800, 525, 350, and 100 Ma correspond to times of collisional orogeny and, except for a comparatively minor peak at 100 Ma, to times of supercontinent assembly. The largest known deposits are Archean in age (Viana and al, 2003).

LCT-type pegmatites represent the most highly differentiated and last to crystallise components of certain granitic melts. Parental granites are typically peraluminous, S-type granites, although some Archean examples are metaluminous, I-type granites. LCT pegmatites are enriched in the incompatible elements' lithium, cesium, tin, rubidium, and tantalum, and are distinguished from other rare-element pegmatites by this diagnostic suite of elements.

Pegmatite intrusions typically occur in discrete dike swarms or clusters, which consist of tens to maybe hundreds of individual pegmatite bodies and cover areas up to a few tens of square kilometres.



Figure 8-1: Main Zones of an Idealised Pegmatite

Pegmatite dikes are commonly late syntectonic to early post-tectonic with respect to enclosing rocks. Most LCT-type pegmatites intrude metasedimentary rocks, which are often metamorphosed to low-pressure amphibolite to upper greenschist facies. Individual pegmatites have various forms including tabular dikes, tabular sills, lenticular bodies, and irregular masses. They are significantly smaller than typical granitic plutons, and typically are of the order of tens to hundreds of metres long, and metres to tens of metres wide. Most LCT-type pegmatite bodies show some sort of structural control. At shallower crustal depths, pegmatites tend to be intruded along anisotropies such as faults, fractures, foliation, and bedding planes. For example, in more competent rocks such as granites, pegmatites commonly follow fractures whereas pegmatites intruded into schists tend to conform to foliation. In higher-grade metamorphic host rocks, pegmatites are typically concordant with the regional foliation, and form lenticular, ellipsoidal, or tapered cylindrical bodies.

Lithium is mostly found in the silicates spodumene (LiAlSi<sub>2</sub>O<sub>6</sub>), petalite (LiAlSi<sub>4</sub>O<sub>10</sub>), and lepidolite (Li-mica, KLi<sub>2</sub>Al(Al,Si)<sub>3</sub>O<sub>10</sub>(F,OH)<sub>2</sub>). Lithium phosphate minerals, mainly montebrasite, amblygonite, lithiophilite, and triphylite, can be present in some LCT-type pegmatites. Tantalum mineralization predominantly occurs as columbite–tantalite ([Mn,Fe][Nb,Ta]<sub>2</sub>O<sub>6</sub>). Tin is found as cassiterite (SnO<sub>2</sub>). Cesium is mined exclusively from pollucite (CsAlSi<sub>2</sub>O<sub>6</sub>). Most individual LCT-type pegmatite bodies are concentrically, though irregularly, zoned. However, there are unzoned examples known. Within an idealised pegmatite, four main zones can be defined (**Error! Reference source not found.Error! Reference source not found.**).

These comprise:

- Border: chilled margin just inside the sharp intrusive contact between pegmatite and country rock. Typically, a few centimetres thick, fine-grained, and composed of quartz, muscovite, and albite.
- Wall: <3 m thick. Largest crystals <30 cm. Main minerals are albite, perthite, quartz, and muscovite. Graphic intergrowths of perthite and quartz are common. Can form economic muscovite concentrations that can be mined. Tourmaline and beryl may be present.
- Intermediate: Term used to refer to everything between the wall and the core. These may be discontinuous rather than complete shells, there may be more than one, or there may be none at all. Major minerals include plagioclase and potassium feldspars, micas, and quartz. Can host beryl, spodumene, elbaite (tourmaline), columbite-tantalite, pollucite (zeolite), and lithium phosphates. Typically, coarser-grained than the wall or border zones.
- Core: Often mono-mineralic quartz in composition. Perthite, albite, spodumene or other lithium aluminosilicates, and (or) montebrasite (lithium phosphate) may occur with the quartz.

LCT-type pegmatites crystallise from the outside inward. In an idealised zoned pegmatite, first the border zone crystallises, then the wall zone, then the intermediate zone(s), and lastly, the core and core margin.

The QP considers that exploration programs that use the deposit model set out above would be applicable to the Project area.

## 9 EXPLORATION

## 9.1 Sampling Program

During the summer and autumn of 2022, Grid exploration teams, mapped and lithogeochemically sampled the lower southwest corner of the Grid claims, presently held under Ontario 1000078834.

In conjunction with the mapping, known pegmatites were stripped and sampled, and channel samples were conducted for resource modeling of the shallow portions of the Main Dyke.

Included in lithogeochemical review, pulps from 2011-2013 were resubmitted to the assay lab for re-assays using the same geochemical lab method as was performed on the 2022 field lithological samples.

Figure 9-1 show the location of the samples, while Figures 9-2, 9-3 and 9-4 show the results for lithium, cesium and rubidium respectively.



Figure 9-1: Lithogeochemical Sampling Locations



Figure 9-2: Lithium Geochemical Results for 2022 Lithogeochemical Sampling Program



Figure 9-3: Cesium Geochemical Results for 2022 Lithogeochemical Sampling Program





Figure 9-4: Rubidium Geochemical Results for 2022 Lithogeochemical Sampling Program

## 9.2 Channel Sampling

A total of 5 channels were completed on the Main Dyke for a total of 21.9 m. The mineralised widths are shown in Table 9-1.

Trench	Width	Li <sub>2</sub> 0%		
	(m)			
MD_Ch1	2.90	1.73		
MD_Ch2	1.15	1.37		
MD_Ch3	4.90	1.50		
MD_Ch4	3.80	0.89		
MD_Ch5	3.70	1.34		

Table 9-1: Trench Sample Results Main Dyke, Donner Lake

## 9.3 Geophysical Surveys

A Drone based Magnetic survey was conducted in 2022. The drone magnetic data appears to correlate well with the surface expression of the Northwest Dyke. This same trend was used to distinguish other targets in the area. Some structural blocks have been identified in the region from the drone magnetic survey.

Blocks were interpreted to bound the pegmatites and change orientation (a possible indication that the block faulting is post pegmatite emplacement and that there may be uplift/erosion or rotation of the structural blocks).

Figure 9-5 shows the magnetic data with interpreted trend of the NW Dyke, while Figure 9-5 shows the interpreted NW Dyke mineralisation in the same scale for context.





Figure 9-5: Donner Lake Drone Magnetic Survey showing trace of NW Dyke



Figure 9-6: Interpreted NW Dyke Mineralisation at same scale as Drone Magnetic Survey

## **10 DRILLING**

## 10.1 Introduction

A total of 96 diamond drill holes totaling 23,292 m were completed were completed by Grid on the Property during the 2018, 2022 and 2023 drill programs.

Table 10-1 shows the number of holes and zones drilled.

Pegmatite/Area	Number of Drill Holes	Metres Drilled	
Northwest Dyke	37	8,548	
Main Dyke	59	14,744	
Total	96	23,292	

Table 10-1: Total Dri	II Holes
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## 10.2 Drill Type

All drilling completed used core drilling at NQ core size (47.6 mm core diameter) to provide quality logging material and to recover sufficient rock material for any future metallurgical testing.

#### 10.3 Grid Metals Drilling Campaigns

As of April 14, 2023, Grid Metals had completed a total of 96 diamond drill holes targeting pegmatite, with 11 holes drilled in 2018, 47 holes in 2022 and 38 holes drilled in 2023.

The drill hole spacing ranged from 50–95 m apart with the majority of the holes being drilled at an inclination ranged from 50° to 70°.

Table 10-2 shows some of the significant assays reported by Grid, while Table 10-3 shows the collar locations of all holes used in the MRE.

BHID	Width (m)	Li20%	
GDL22-19	0.8	1.7	
and	3.4	1.7	
GDL22-20	1.4	1.7	
and	2.8	1.5	
GDL22-21	4.4	1.6	
GDL22-22	5.6	1.0	
GDL22-23	2.5	1.5	
GDL22-24	9.5	1.4	
GDL22-31	5.3	1.4	
GDL22-32	6.1	1.8	
GDL22-33	1.7	2.1	
and	5.9	1.5	
GDL22-34	3.4	1.5	
GDL22-35	3.8	1.6	
GDL22-36	3.5	1.8	
GDL22-37	7.5	1.8	
including	4.0	2.1	
GDL22-38	3.6	1.7	
GDL22-40	3.8	1.7	
GDL22-41	5.3	1.8	
GDL22-42	3.3	1.8	
and	4.4	1.6	
GDL23-68	5.9	1.6	
GDL23-74	6.9	1.6	
GDL23-78	10.7	1.1	
GDL23-81	6.7	1.6	
GDL23-84	5.0	1.4	

#### Table 10-2: Select Significant Intercepts for Donner Lake Project

Table 10-3: Collar Coordinates or Donner Lake Drill Hole Database

BHID	X (m)	Y (m)	Z (m)	Azi	Dip	Depth
				(Degrees)	(Degrees)	(m)
DL-95-01	315344.4	5609599	300	130	-50	148.2
DL-95-02	315635.2	5609872	300	130	-50	148.2
GDL22-01	315954	5610632	290	135	-60	131
GDL22-02	315954	5610632	290	135	-45	215
GDL22-03	315960	5610735	299	135	-45	179
GDL22-04	315960	5610735	299	135	-60	317
GDL22-05	315219	5609761	298	140	-50	257
GDL22-06	315310	5609815	298	140	-50	275
GDL22-07	315879	5610585	288	135	-45	248
GDL22-08	315879	5610585	288	135	-60	260
GDL22-09	315842	5610520	290	135	-45	143
GDL22-10	315754	5610459	297	135	-45	224
GDL22-11	315842	5610520	290	135	-60	185
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GDL22-12	315754	5610459	297	100	-60	251
GDL22-13	316175	5610670	295	315	-45	178
GDL22-14	316175	5610670	295	315	-60	203
GDL22-15	316199	5610930	287	135	-45	197
GDL22-16	315855	5610623	290	135	-57	266
GDL22-17	315855	5610623	290	135	-64	332.8
GDL22-18	315855	5610623	290	100	-52	300
GDL22-19	317626.5	5610290	298.451	147	-45.13	191
GDL22-20	317626.5	5610290	298.451	147	-70.3	278
GDL22-21	317559.9	5610215	298.49	147	-45.21	157
GDL22-22	317559.9	5610215	298.49	147	-69.72	191
GDL22-23	317473.3	5610107	300.475	147.94	-43.74	92
GDL22-24	317473.3	5610107	300.475	147	-75.01	188
GDL22-25	317377.6	5610238	298.644	147	-48.47	278
GDL22-26	317377.6	5610238	298.644	145.8	-65.15	353
GDL22-27	317354.3	5610184	298.996	147	-47.62	254
GDL22-28	317354.3	5610184	298.996	147	-64.02	272
GDL22-29	317265	5610154	306.953	147	-45.12	269
GDL22-30	317265	5610154	306.953	147	-57.61	296
GDL22-31	317195.8	5610067	305.737	147	-46.66	242
GDL22-32	317195.8	5610067	305.737	147	-65.76	282
GDL22-33	317131.5	5610120	298.45	147	-44.83	317
GDL22-34	317107.7	5609837	298.693	147	-44.96	119
GDL22-35	317077	5609978	298.331	147	-58.3	297
GDL22-36	317107.7	5609837	298.693	147	-64.31	224
GDL22-37	317077	5609978	298.331	147	-65.65	353
GDL22-38	317001.2	5609901	298.653	147	-44.1	195.75
GDL22-39	317001.2	5609901	298.653	147	-64.7	224
GDL22-40	317149.5	5609994	299.86	147	-43.29	290
GDL22-41	317149.5	5609994	299.86	147	-65.37	308
GDL22-42	317466.1	5610337	298.36	147	-54.48	335
GDL22-43	317680.4	5610316	298.413	147	-44.38	199
GDL22-44	317680.4	5610316	298.413	147	-65.3	239.4
GDL22-45	317025.6	5609801	298.702	147	-44.18	206
GDL22-46	316935.1	5609881	298.551	147	-45	38
GDL22-47	316935.1	5609881	298.551	147	-44.95	302
GDL23-48	316935.1	5609881	298.551	147	-65.13	377
GDL23-49	316974.8	5609769	298.733	147	-45.28	182
GDL23-50	316902.2	5609722	298.697	147	-44.17	215
GDL23-51	316744.6	5610010	298.504	147	-43.02	494
GDL23-52	316731.2	5609778	299.083	147	-43.72	332

GDL23-53	316645.2	5610024	298.417	147	-44.97	209
GDL23-54	316731.2	5609778	299.083	147	-65.82	323
GDL23-55	316645.2	5610024	298.417	147	-64.94	291.8
GDL23-56	316797.8	5610044	298.021	147	-45.72	167
GDL23-57	317131.5	5610120	298.45	138	-60.1	380
GDL23-58	316795.1	5609973	298.397	146	-52.22	398
GDL23-59	317131.5	5610120	298.45	164	-58.85	374
GDL23-60	317264.2	5610159	307.123	147	-67.61	356
GDL23-61	316925.3	5610048	298.287	147	-48.47	395
GDL23-62	317267.2	5610291	298.027	148	-54.95	416
GDL23-63	316989.2	5610088	298.231	146	-52.47	407
GDL23-64	317375.6	5610333	299.563	146	-55.88	446
GDL23-65	316635.8	5609559	299.476	147	-44.81	350
GDL23-66	316250	5609360	300	147	-44.16	275
GDL23-67	316145.5	5610919	290.09	130	-45.29	176
GDL23-68	315952.6	5610520	289.98	310	-45.32	65
GDL23-69	315902.6	5610405	300.67	310	-44.92	101
GDL23-70	316171	5610793	290.09	310	-47.85	65
GDL23-71	315965.6	5610352	300.21	310	-45.76	251
GDL23-72	316214	5610757	290	310	-61.38	311
GDL23-73	315966	5610352	300	310	-62.93	353
GDL23-74	316122	5610730	290	310	-47.98	98
GDL23-75	316145	5610645	301	310	-47.3399	221
GDL23-76	315853	5610342	300	310	-46.68	104
GDL23-77	315846	5610244	290	310	-45.8674	251
GDL23-78	316145	5610645	301	310	-62.1784	236
GDL23-79	315804	5610278	290	310	-43.6289	201
GDL23-80	315694	5610475	296	130.0008	-51.3381	350
GDL23-81	316074	5610640	300	310	-48.0068	125
GDL23-82	315911	5610674	290	134	-48	251
GDL23-83	315911	5610674	290	134	-64.425	374
GDL23-84	315780	5610586	290	138	-56	320
GDL23-85	315689	5610761	300	130	-44.807	533
MAY-11-13	317298	5610625	286	180	-60	163.7
MAY-11-14	317464	5610334	285	180	-60	145.4
MAY-13-158	317248	5610477	294	148	-55.2	302
MAY-13-159	317469	5610143	295	354.7	-70	647
MAY-13-160	316718	5609321	298	138.1	-50.8	200
*MD_Ch1	317671	5610143	300	135	0	2.9
*MD_Ch2	317528	5610035	300	160	0	2.05
*MD_Ch3	317467	5609994	300	100	0	6.8
*MD_Ch4	317370	5609950	300	115	0	5.6

*MD_Ch5	317312	5609912	300	145	0	4.5
MLI-18-01	317613	5610125	301	135	-55	71
MLI-18-02	317701	5610196	305	135	-55	67
MLI-18-03	317502	5610130	297	135	-55	119
MLI-18-04	317454	5610182	285	135	-55	185
MLI-18-05	317411	5610065	294	135	-55	143
MLI-18-06	317331	5610007	298	153	-55	143
MLI-18-07	317239	5609950	299	135	-55	135
MLI-18-08	317171	5609897	280	135	-55	116
MLI-18-09	317434	5610197	280	135	-55	101
MLI-18-10	317765	5610277	299	135	-55	116
MLI-18-11	317788	5610367	299	135	-55	170

 Channel Samples with assays. Assays from channel samples have been included in the current MRE



Figure 10-1: Plan View of the Drilling on the Main Dyke and Northwest Dyke



#### Figure 10-2: Isometric View of Drilling on the Northwest Dyke and Main Dyke, Looking NE

#### 10.4 Drillhole Collar Survey

Grid used Differential GPS to survey all drill collars and the survey of collars will continue until all the collar locations have been recorded using a contracted surveyor on site.

Sayeed has no way to verify the accuracy of the survey method, hence he will rely on the statements and information provided by Grid.

## 10.5 Drilling Contractor

Rodren Drilling completed the 2018 drill program, Major Drilling completed the winter 2022 drill program and Foraco Drilling completed the autumn 2022 and winter 2023 drill program.

## 10.6 Drill Collars

All drill collars were surveyed using differential GPS.

# 10.7 **Potential Drilling, Sampling or Recovery Factors**

There were no significant drilling, sampling or recovery factors that would impact the outcome of the drilling results and for the estimated MRE (covered in Item 14).

## 10.8 **QP's Comments**

In Sayeed's opinion, based on a review of all possible information, the drilling procedures put in place by Grid Metals meet acceptable industry standards and that the information can and has been used for geological and resource modeling.

# 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

#### 11.1 2022-2023 Drilling Programs

In the 2022-2023 drill program, a total of 85 holes were drilled into the Main Dyke and NW Dyke targets.

#### 11.2 **Diamond Core Drillhole Samples**

All drilling was core drilling at NQ core size (47.6 mm core diameter) to provide quality logging material, and to recover sufficient material for future metallurgical testing. Total number of drill hole samples used in the mineral resource estimate totaled 4152 samples (assays).

## 11.3 Core Logging

The drill core is logged for lithology, structure, alteration, and mineralization prior to marking out sample intervals. Sample intervals are defined to mineralization, alteration, and lithology contacts. Suspect high-grade intervals are sampled separately. Once the core is logged and sample intervals determined, the core boxes are carried to the core cutting facility and the core is cut length-wise along the core axis using a diamond bladed saw which is flushed with water. The core is split and then the samples are placed into sample bags with a numbered sample tag. The core is cut by a geologic technician under the supervision of the geologist and then boxed for shipment to the assay labs.

## 11.4 Sample Preparation

Samples were prepared on site after logging and entering the data into the database using Acquire software. Core was split in half using a core cutting saw on site. Half the core was left in the core box while the remaining half of the core was placed in sterile plastic bags accompanied by sample printed sample tag and shipped to Activation Laboratories Ltd. (Actlabs) in Thunder Bay, Ontario. All samples preparation included QA/QC program including systematic insertion of standards or certified reference materials (CRMs), blanks, core, and crush duplicates.

Core samples were prepared by Grid site geologists and shipped to Actlabs located in Thunder Bay, Ontario, Canada. Actlabs is an ISO-accredited (ISO:17025:2020) commercial laboratory and is completely independent of Grid. Diamond drilling samples were prepared by the Actlabs laboratory in Thunder Bay, Ontario. Samples were dried (105°C), crushed (75% passing 3 mm sieve), homogenised, divided (Jones riffle splitter) and pulverised 250 to 300 g of sample in steel mill to 95% passing 150#. During the preparation process, Actlabs included their own blank and standard samples, as well as duplicates and replicate samples. Analyses were then performed on pulp splits at the Actlabs laboratory in Ancaster, Ontario using a sodium peroxide fusion method.

Certified reference materials and blanks are inserted into the sample stream, and all samples are bagged in sacks for transport. A control file, the laboratory sample dispatch form, includes the sack number and contained sample-bag numbers in each sack. The laboratory sample dispatch form accompanies the sample shipment and is used to control and monitor the shipment.

## 11.5 Quality Assurance/Quality Control (QAQC) Samples

QAQC samples are inserted into the sample sequence at an approximate frequency of one QAQC sample per 10 samples (certified reference material (CRM), blank or coarse duplicate). Approximately 15.9% of samples assayed have been QAQC samples. In total, 233 blanks, 333 CRMs and 97 coarse duplicate pairs have been submitted for assays included in the current MRE. All QAQC samples are analysed by Actlabs.

# 11.6 Certified Reference Materials (CRM)

The drilling sampling database contains a total of 337 Certified Reference Material ("CRM") sample results for the 2018, 2022 and2023 drilling campaigns, corresponding to 8% of the total database of samples. The CRM samples were inserted by Grid's technical team at the exploration site, generally at an interval of 1 to every twenty 10 samples collected, following Grid's sampling procedures. Grid used five different CRM materials; four provided by Ore Research and Exploration (OREAS): CRM OREAS 147, CRM OREAS 680, CRM OREAS 750 and CRM OREAS 753, and one provided by CDN Resource Laboratories Ltd ("CDN"): CDN-PGMS-29. Table 11-1 shows the certified values for lithium content of CRMs used in this program.

Standard	Li (ppm)					
Stanuaru	Certified Value	SD				
OREAS 147	2270	110				
OREAS 680	14.5	1.6				
OREAS 750	2300	100				
OREAS 753	10200	230				
CDN-PGMS-29	-	-				

Table 11-1: Certified Reference Materials for 2022-2023

Table 11-2: 2022-2023 Li CRM Performance

Standard Quality Control for Li_ppm										
	Count	Value Sigma Pass Warning Failed % Failed								
OREAS 147	163	2270	110	155	4	4	2.45			
OREAS 680	5	14.5	1.6	0	0	5	100			
OREAS 750	7	2300	100	6	1	0	0			
OREAS 753	155	10200	230	113	18	24	15.48			









Figure 11-2: Li Standard Sample Analysis Results for the 2022-2023 Donner Lake Project with Standard OREAS 680



Figure 11-3: Li Standard Sample Analysis Results for the 2022-2023 Donner Lake Project with Standard OREAS 750



Figure 11-4: Li Standard Sample Analysis Results for the 2022-2023 Donner Lake Project with Standard OREAS 753

# 11.7 Analytical Blanks

On average, one (1) analytical blank sample was inserted every 20 samples. In total, 233 blank samples were reported representing about 5.6% of total database. It used principally a fine (<200#) granitic material based certified blank material (CDN-BL-10) from CDN Resource Laboratories Ltd ("CDN") and a fine quartz sand to which 0.5% iron oxide has been added to produce a pale grey based certified blank material (OREAS 22h) from Ore Research and Exploration (OREAS) (Figure 11-5 and Figure 11-6).

All blanks results (228 CDN-BL-10 and 5 OREAS 22h results) were under the detection limit (15 ppm) or under the 5 X DL (detection limit) value (75 ppm), except for one single assay result (CDN-BL-10) for lithium above the 5 X DL (detection limit) value considered (120 ppm). This warning could be a mislabeled sample and this occurrence was not considered a systematic contamination in the sample preparation process.



Figure 11-5: CDN-BL-10 Blank Sample Chart for Li (ppm)



Figure 11-6: OREAS 22h Blank Sample Chart for Li (ppm)

## 11.8 **Duplicate Samples**

On average, one (1) coarse duplicate sample was inserted for every 30 samples for Grid's 2022-2023 drilling campaign. The total duplicates in the database amount to 97 pairs of samples, which represent about 2.3% of the database.

The analysis of the coarse duplicate samples was done using scatterplots for comparison and calculated a linear regressing, sign test and student T test.

Figure 11-7 shows the precision charts comparing results for sample pairs of coarse duplicates for Li (ppm). Table 11-3 shows the statistics of the coarse duplicates for Li<sub>2</sub>O (%). Coarse duplicate sample analyses show strong correlation with a coefficient of determination ( $R^2$ ) of 0.97.

Duplicate Quality Control for Li <sub>2</sub> O (%)					
	DUPLICATE: Li <sub>2</sub> O				
Count+	53				
Count-	42				
Count=	2				
Odds	0.3099				
Sign test	No evidence of a bias				
Mean Original	1.2012				
Mean Duplicate	1.1691				
Mean Difference	-0.0322				
Count	97.0000				
SD-Diff	0.1832				
SDM	0.0186				
t obs	-1.7298				
t crit	1.9850				
Student T Test	No evidence of a bias				

Table 11-3: Statistics of Coarse Duplicates for Li<sub>2</sub>O (%)







#### 11.9 Sample Security

The sample shipment was delivered to the Actlabs in Thunder Bay, Ontario, Canada via a parcel transport company. Actlabs sends a confirmation email with detail of samples received upon delivery. Actlabs is an ISO 17025 certified laboratory.

At all times samples were in the custody and control of the Company's representatives until delivery to the laboratory where samples were held in a secure enclosure pending processing.

All exploration samples taken were collected by Grid staff. Chain of custody (COC) of samples was carefully maintained from collection at the drill rig to delivery at the laboratory to prevent inadvertent contamination or mixing of samples and render active tampering as difficult as possible.

Drill core is stored at the core-logging facilities under a roof to preserve its condition. The area is fenced and guarded by security. The plastic boxes containing the core boxes are properly tagged with the corresponding drilling information and stored in an organised way and under acceptable conditions.

#### 11.10 QP Comments

Millar and Sayeed conclude that the drill core handling, logging and sampling protocols conform to industry best standard and to generally acceptable best practices. The chain of custody was followed by Grid employees, and the sample security procedure showed no flaws.

Millar and Sayeed noted that while there were three failures on CRM OREAS 753, these were non-material to the MRE.

Millar and Sayeed consider that the sample quality is good and that the samples are representative of the mineralisation drilled on the property.

# **12 DATA VERIFICATION**

The following Item summarise the data verification procedures. As part of the verification process, Millar and Sayeed reviewed all geological data and databases as well as Grid's sampling procedures and protocols.

Sayeed conducted an independent verification of the assay data in the drill sample database. Digital assay records were randomly selected and checked against the available laboratory assay certificate reports. Assay certificates were available for all diamond drilling completed by Grid since the start of the drilling campaign in 2022. All deposit areas have been diamond drilled and the results of the diamond drilling completed by Grid is considered representative of the Deposit.

Sayeed reviewed the assay database for errors, including overlaps and gapping in intervals and typographical errors in assay values. Recommendations were made to fix some database related errors linking assays and assay certificates on hand.

Verifications were also carried out on drill hole locations, down hole surveys, lithology, SG and topography information. Minor errors were noted and explained by Grid through the validation process but have no material impact on the 2023 MRE presented in the current report.

Sayeed has reviewed the sample preparation, analyses and security completed by Grid on the Property. It is Sayeed's opinion, based on a review of all possible information, that the sample preparation, analyses and security used on the Project by Grid meet acceptable industry standards (past and current) and the drill data can be used for geological and resource modeling, and resource estimation.

#### 12.1 Site Visit

This site visit to the Donner Lake Project of Grid was conducted by Faisal Sayeed, P.Geo., an employee of SGS Geological Services on June 7<sup>th</sup>, 2023. The site visit had been preplanned with scheduled meetings with site geologists, visit to the core shed, review of pulp library, core storage area and the general storage facility for crush rejects.

During the site visit, Sayeed met with Grid Metals senior project geologist Mr. Bruce Brownlee and Grid Metals project geologist Mr. Kai Roberts (Roberts).

On the morning of June 7<sup>th</sup>, 2003 arrive at the Grid Metals site office and conducted the following:

- Data review, sampling and sample QAQC protocols and procedures with site geologists; Brownlee and Roberts
- Data collection procedures, review of the geological logging procedure
- Review of core sampling and data management procedures

A portion of the day was also spent meeting site personnel including core cutters and field technicians and geologists – the latter of whom provided an overview of the geological interpretation, database management and core logging process linked with the Acquire database management system used during the current exploration phase.

Mr. Sayeed also examined and reviewed core logging process and procedures, checked core from select holes and reviewed significant geological units present in the core. Sayeed also personally inspected occurrences of pegmatites intervals, color, texture and mineralogy of the identifiable pegmatite present in drill cores obtained from select holes chosen by Sayeed. The holes were laid out in on the core stacks for inspection, Figure 12-1 and Figure 12-2 below shows some core boxes.



#### Source: Faisal Sayeed, P.Geo



Figure 12-1: Drill core from hole GDL 22-28, pegmatite shown hosted in dark color mafic volcanic

Source: Faisal Sayeed, P.Geo

#### Figure 12-2: Drill core from hole GDL23-59, pegmatite contact with dark color mafic volcanic

The site visit also entailed visiting the pegmatite outcrops, taking some basic field attitude measurements of the pegmatite dykes, and checking channel sampling sites and drill hole locations (the ones that were accessible). Due to heavy rains in days prior to site visit, some of the drill pad locations were under water and could not be readily accessed (Figure 12-3).



Figure 12-3: Site Visit Photographs

# 12.2 Conclusion

All geological data has been reviewed and verified by Sayeed as being accurate to the extent possible and to the extent possible all geologic information was reviewed and confirmed. There were no significant or



material errors or issues identified with the database. Based on a review of all possible information, Sayeed is of the opinion that the database is of sufficient quality to be used for the current MRE.



# 13 MINERAL PROCESSING AND METALLURGICAL TESTING

#### 13.1 General

A suitable amount of metallurgical testing has been completed by Grid on a range of samples from the Donner Lake Lithium deposits, starting in 2018. The testing to date has all been conducted by XPS Expert Process Solutions (XPS) using samples provided by Grid considered to represent pegmatite mineralization in the Main Dyke and the Northwest Dyke deposits which have been drilled by Grid.

Initial work was conducted in 2018 using two composites prepared from a set of 126 crushed assay rejects from AGAT Laboratories which represented intervals from a total of 9 drill holes in the Main Dyke. The composites were prepared based on the assayed iron content in each reject sample, as above or below 2%Fe. Of interest is that the Low Fe composite iron content was 0.55 %Fe, with a lithium content of 1.193 %Li<sub>2</sub>O and a mass of 66 kg, whereas the High Fe composite had an iron content of 7.76 %Fe, a lithium content of 0.156 %Li<sub>2</sub>O and a mass of 106 kg. This emphasised that in this deposit, the intervals containing significant iron content have low lithium content and this is a basis for potential upgrading.

XPS conducted a detailed mineralogical study to identify the minerals of interest and liberation in each composite, using 8 polished sections from each composite submitted for Qemscan study. Electron probe microanalysis (EPMA) and laser ablation-inductively coupled plasma (LA-ICP) techniques were conducted to determine the lithium composition in the major minerals.

The main observations were that in the Low Fe composite most of the lithium, 84.4% of the total, was in spodumene, followed by some petalite and lepidolite. In the High Fe composite, which contained very little lithium as noted above, most of the lithium was in lepidolite plus there were significant amounts of base metal sulphides present such as pyrrhotite, pyrite, pentlandite etc. Most of the Rubidium and Caesium in the Low Fe composite were found in mica, orthoclase and lepidolite minerals. Liberation observations suggested that a target grind between 100 to 150 µm would be required for optimum processing.

XPS concluded the 2018 study by a flotation test including desliming, mica and phosphate removal stages followed by a spodumene circuit including cleaning, but with a target grind size of 200  $\mu$ m. The result was poor with recovery of lithium at 35.1 % to a spodumene concentrate containing 4.64 % Li<sub>2</sub>O. In the report of the study (XPS, 2019), XPS recommended future work be done with a grind size close to 100  $\mu$ m, and to examine Dense Media Separation for feed upgrading. Based on colour differences of the composites, XPS also suggested that optical or iron content sorting of the coarse feed material would be of benefit.

Further testing was conducted by XPS and Sepro Laboratories (Sepro) in 2022 and reported by XPS (XPS, 2023). Two composite samples were prepared using drill core intervals from the Main Dyke (2018 drilling) and the Northwest Dyke (2022 drilling) selected to represent the drilled areas of each pegmatite dyke, as listed in Table 13-1 and Table 13-2. Not included in the composites were specific sections of some drill cores which, due to easily visible colour, were seen to be veins of iron-rich minerals. These were rejected from the composite since it was considered that this material could be removed from proposed plant feed by an (optical or magnetic) ore sorting process, but which could not be tested on this small composite.

	Main Dyke Samples for Blending										
Drill Core	Wt.(g)	Description									
MLI-18-01	5443.10	14.68-16.92 & 17.8-18.48m									
MLI-18-04 (2/2)	3400.00	152.42-157.5m									
MLI-18-05	4717.36	99.7-100.7 & 101.7-102.98m									
MLI-18-06	2086.52	81.24-81.73 & 82.5-84.26m									
MLI-18-07	5352.39	75.2-76.5m & 77.50-78.88m									
MLI-18-09	3084.43	51.47-53.31m									
MLI-18-02	4500.00	36.75-37.98m & 38.78-39.97m									
MLI-18-03 (1/2)	7800.00	78.6-81 & 82-84.4m									
MLI-18-03 (2/2)	3100.00	109.87-112.85m									
MLI-18-04 (1/2)	5500.00	148.04-150.04m & 150.75-152.42m									
MLI-18-08	6200.00	66.98-68.56 & 69.33-71.56m									
Total Wt.	51183.80										

Table 13-1: Main Dyke Samples Used in Composite from 2022 Metallurgical Testwork (XPS 2023)

Table 13-2: NW Dyke Samples Used in Composite from 2022 Metallurgical Testwork (XPS 2023)

	NW Dyke Samples for Blending										
Drill Core	Wt.(g)	Description									
GDL-22-01 (1/3)	9600.00	87.5-92.75m									
GDL-22-01 (2/3)	9100.00	92.75-97.75m									
GDL-22-01 (3/3)	5000.00	97.75-101.25m									
GDL-22-04 (1/2)	8700.00	236.07-240-1m									
GDL-22-04 (2/2)	8600.00	240.1-243.8m									
GDL-22-08 (1/2)	11100.00	164.1-166.55 & 171.33-173.27m									
GDL-22-08 (2/2)	7900.00	173.27-176.75m									
GDL-22-11 (2/4)	8200.00	146.25-149.8m									
GDL-22-11 (3/4)	9600.00	149.8-154.65m									
GDL-22-11 (4/4)	6000.00	154.65-156.31m									
GDL-22-12 (1/2)	8200.00	218.8-223.78m									
GDL-22-12 (2/2)	4800.00	223.78-227.35									
GDL-22-13	5715.26	139.48-143.45m									
Total Wt.	102515.26										

The eliminated, high iron content samples from the Main Dyke composite comprised 5 intervals totaling 7.0kg, and for the NW Dyke samples a single interval of 7.8 kg was not included.



The composites were assayed to determine both major components together with the minor elements plus lithium oxide, and results are summarised in Table 13-3.

Assay sample	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	К2О	TiO2	P2O5	LOI	Total
Assay sample	%	%	%	%	%	%	%	%	%	%	%	%
NW Dyke Composite	74.33	15.77	1.25	0.07	0.05	0.27	0.00	2.85	0.01	0.11	0.66	98.78
Main Dyke Composite	73.95	16.09	1.03	0.16	0.05	0.22	0.00	2.24	0.01	0.18	0.56	98.60
	Li2O	Rb	Та	Tl	Cs	Li						
	%	ppm	ppm	ppm	ppm	%						
NW Dyke Composite	1.34	>1000	92.03	16.83	162.67	0.62						
Main Dyke Composite	1.46	>1000	138.67	20.27	277.00	0.68						

Table 13-3: Composite head assays from 2022 Metallurgical Testwork (XPS 2023)

After preparation of the two composites, a portion of each was crushed to top sizes of 12.5mm and 6.7 mm and fines (-0.85mm) removed, with the resulting samples used by Sepro for heavy liquid separation (HLS) testing.

XPS completed detailed mineralogical examinations of the two composites using Qemscan. Results show similar mineralogy with most of the lithium present as spodumene, 94.9% in the NW Dyke composite and 89.3% in the Main Dyke composite, the difference being mainly due to increased petalite in the Main Dyke samples. Main minerals in each were quartz, mica, albite and orthoclase, as shown in Figure 13-1.



Figure 13-1: Mineralogy of the Main Dyke and NW Dyke samples (XPS, 2023)

Determinations of liberation indicated that for optimum spodumene separation, a grind size target of 115-135 µm for Main Dyke and 137-153 µm for NW Dyke were recommended.

Results from the Sepro HLS testing for a range of specific gravities (S.G.) between 2.6 to 3.0 and two particle top sizes indicated that the most attractive conditions were at the top size of 12.5mm and SG of 2.65. Main Dyke composite showed 31.2% mass rejection for a loss of 9.8% of lithium, while NW Dyke composite showed 33.8% mass rejection for a loss of 5.2%.

XPS completed 13 direct flotation tests (7 on Main Dyke and 6 on NW Dyke composites) with generally a grind size (80% passing) at or below 140  $\mu$ m. Compared with the 2018 work, the flowsheet was simplified to include scrubbing of the ground feed to remove slimes, mica flotation, slimes removal from mica tailings, and spodumene flotation including cleaner stages aimed at generating a 6% Li<sub>2</sub>O concentrate. High intensity magnetic separation was applied in most tests to the spodumene concentrate with the aim to reduce iron content.

Results showed that a spodumene concentrate of close to or above 6% Li<sub>2</sub>O could be produced at a good recovery in most of the tests. Coarser primary grinds above  $80\% - 140 \,\mu\text{m}$  for NW Dyke and above  $125 \,\mu\text{m}$  for Main Dyke yielded lower recovery. In most tests, the concentrate grade of the Main Dyke tests was below that of NW Dyke due to the higher petalite content of the feed. The final cleaning stage with magnetic separation to reduce iron content produced erratic improvement due to variable performance of the mica circuit. Results after magnetic separation of the final concentrate are not included in the following Table 13-4 and Table 13-5 which summarise the optimum results for each composite.

Products	Mass	Wt		Assay	's,%		Distribution, %			
FIOUULIS	g	%	Li2O	SiO2	Al2O3	Fe2O3	Li2O	SiO2	Al2O3	Fe2O3
Spod Clnr1 conc	327.54	16.75	6.16	70.16	23.14	2.05	76.87	15.83	24.27	25.56
Spod Clnr1 tails	38.54	1.97	1.36	75.95	14.44	1.59	1.99	2.02	1.78	2.33
Spod Rougher tails	1122.5	57.40	0.09	78.75	12.34	0.72	3.68	60.88	44.36	30.77
Slimes 2	71.53	3.66	1.01	74.3	14.43	1.34	2.76	3.66	3.31	3.65
Mica Rougher conc	224.15	11.46	1.01	59.53	24.27	3.27	8.64	9.19	17.42	27.90
Slimes 1	171.44	8.77	0.93	71.31	16.14	1.5	6.05	8.42	8.86	9.79
Head (Calc.)	1955.7	100.00	1.34	74.24	15.97	1.34	100	100	100	100
Head	2000		1.34	74.33	15.77	1.25				

#### Table 13-4: NW Dyke Direct Flotation Test Results (XPS 2023)

Table 13-5: Main Dyke Direct Flotation Test Results (XPS 2023)

Products	Mass	Wt		Assays, %				Distrib	ution, %	
FIODUCES	g	%	Li2O	SiO2	Al2O3	Fe2O3	Li2O	SiO2	Al2O3	Fe2O3
Spod Clnr1 conc	8.68	0.47	5.68	64.19	22.77	2.69	74.13	15.74	24.33	35.70
Spod Clnr1 tails	41.68	2.27	1.57	70.94	18.62	1.39	2.65	2.24	2.57	2.38
Spod Rougher tails	1229.59	66.85	0.24	76.19	13.14	0.87	11.77	71.11	53.43	43.99
Slimes 2	29.77	1.62	0.99	70.63	16.32	1.31	1.19	1.60	1.61	1.60
Mica Cleaner conc	70.31	3.82	0.95	70.96	16.93	1.25	2.69	3.79	3.94	3.61
Slimes 1	145.04	7.88	1.29	50.21	29.45	2.13	7.57	5.53	14.13	12.70
Head (Calc.)	1839.5	100.00	1.34	71.63	16.44	1.32	100	100	100	100
Head	2000		1.46	73.95	16.09	1.03				

One final flotation test for each composite was completed by XPS using the +2.65 SG fraction from the Sepro tests plus the fines fraction not subjected to heavy liquid separation. Spodumene concentrates containing 6.01-6.12% Li<sub>2</sub>O were produced with good recovery. However, the overall recovery due to the loss in the HLS rejects was below what was produced by the direct flotation method.

In conclusion, substantial mineralogical study of composites from both crushed assay rejects plus drill core sections representing the drilled areas has been completed for both Main and NW Dykes to understand the important minerals present, liberation of the minerals of interest and particle size required for separation. Most of the lithium oxide is contained in spodumene for the NW Dyke and in the Main Dyke a small amount is replaced by Petalite which impacts the metallurgical recovery.

Adequate metallurgical testing of composites representing the drilled areas of the Dykes indicates that a spodumene concentrate of close to or above 6% Li<sub>2</sub>O content can be produced from each deposit and with a recovery of above 70%. A fine grind below 140  $\mu$ m and direct flotation produces the best recovery of Li<sub>2</sub>O. Heavy liquid separation, representing dense media separation in practice, can reduce mass in the feed but results in lower overall lithium recovery. There is a definite indication that ore sorting by optical or magnetic

methods could reduce iron content of the feed as well as mass and should be tested when larger composites can be produced.

## 14 MINERAL RESOURCE ESTIMATES

#### 14.1 Introduction

The Mineral Resource Estimate (MRE) is reported using the 2014 CIM Definition Standards and the 2019 CIM Guidelines. The mineral resource estimation work for the Project was conducted by Rohan Millar, B.Sc., P.Geo. The 3D modelling, geostatistics, and grade interpolation of the block model was conducted using the Genesis software developed by SGS. The Mineral Resource estimation process was reviewed internally by Faisal Sayeed, P.Geo, from SGS.

Completion of the current updated MRE for the Donner Lake deposit involved the assessment of a drill hole database, which included all data for surface drilling completed between 1995 and 2023, the interpretation of the three-dimensional (3D) mineral resource model, and review of available written reports.

A site visit was completed to the Property on the 7<sup>th</sup> June 2023 by Faisal Sayeed, P.Geo., an employee of SGS Geological Services and an Independent Qualified Person under NI 43-101. The effective date of the MRE is the 27<sup>th</sup> June 2023.

Inverse Distance Squared ("ID<sup>2</sup>") estimation restricted to mineralised domains was used to interpolate lithium oxide grades (Li<sub>2</sub>O%) into a block model. Mineral resources are reported in the summary tables in Section 14.11.

The current MRE takes into consideration that the Donner Lake deposit will be mined by a combination of open pit and underground (U/G) mining methods.

#### 14.2 Exploratory Data Analysis

A database comprising a series of comma delimited spreadsheets containing drill hole information was provided by Grid. The database included diamond drill hole location information (NAD83 / UTM Zone 15N), downhole survey data, assay data, and lithology data. The data was imported into Genesis for statistical analysis, block modeling and resource estimation.

The database entries comprise:

- Drill hole collars (n=103)
- Downhole surveys (n=12,078)
- Assays (n=4,183)
- Lithologies (n=2,855)

The database was checked for typographical errors in drill hole locations, down hole surveys, lithology, assay values and supporting information on the source of assay values. Overlaps and gapping in survey, lithology and assay values in intervals were checked.

The drill hole collar locations are shown in Figure 14-1.

It is Millar's opinion that the database is of sufficient quality to be used for the current resource estimate.





Figure 14-1: Drill Hole Collar Locations Used for 2023 Donner Lake MRE

## 14.3 Analytical Data

There is a total of 4,183 assays in the assay database, of which 665 are contained within the interpreted mineralised solids.

Table 14-1 shows the range of Li<sub>2</sub>O values from the analytical data within the interpreted mineralised shapes.

	Li <sub>2</sub> 0%
Count	665
Mean	1.14
Std. Dev.	0.71
Min.	0.0005
Median	1.30
Max.	2.93

Table 14-1: Donner Lake Assay Statistics Within Mineralised Solids

#### 14.4 Composite Data

The samples that are contained within the mineralised wireframes were analysed to determine the optimal composite length for the estimation.

Of the 4,183 samples, 3,954 or 94.5% were 1.1 m or less in length (Figure 10-2), with an average length of 0.66 m. It was determined that the optimal composite length was 1.0 m for the MRE.

Composite lengths ranged from 0.62 m to 1.32 m, with an average length of 0.977 m. The grade ranged from 0.0005  $Li_2O\%$  to 2.79  $Li_2O\%$ , with an average of 1.25  $Li_2O\%$ .

The final composite file contained 523 data points and Table 14-2 shows the data range within the composite file.

	Li <sub>2</sub> O%
Count	523
Mean	1.25
Std. Dev.	0.63
Min.	0.0005
Median	1.38
Max.	2.79

#### Table 14-2: Donner Lake 1 m Composite Statistics



Figure 14-2: Drilling Sample Lengths for the Donner Lake Deposit

# 14.5 High Grade Capping

A statistical analysis of the composited data was undertaken to determine if there were any high-grade outlier assays which may affect the resource calculation. In certain situations, high grade assays left uncapped may introduce a local high-grade bias into the block model and disproportionately increase the average grade of the deposit.

The composite data was investigated using statistical tables, histogram plots and log probability plots, which was conducted in Genesis and Excel.

After review, it was Millar's opinion that capping of the Li<sub>2</sub>O values was not required.

## 14.6 Bulk Density

A density of 2.70 t/m<sup>3</sup> was used in the preparation of the MRE. This was based on discussions with Grid geologists based on limited density calculations.

## 14.7 Geological Interpretation

For the 2023 MRE for the Donner Lake deposit, a 3D lithology and grade-controlled wireframe model was constructed by Millar. The 3D lithology and grade-controlled model was built by visually interpreting



mineralised intercepts from cross sections using lithium values contained within the logged pegmatite. The 3D modelling was conducted using Genesis software developed by SGS.

For the purposes of resource modelling, cross-sections were developed parallel to the dominant drill hole lines, spaced at regular intervals approximate to the spacing of the drill lines. For Donner Lake, the cross-sections were oriented northwest-southeast, at an azimuth of 57°, at an average spacing of 50 m.

Mineralised intervals were manually generated in Genesis within the entire width of the mineralised material logged as pegmatite. There was no minimum width assigned to intervals. All the intervals were tagged with an identifier prior to wireframing (Figure 14-3).

The final 3D wireframe models were constructed by meshing the tagged mineralised intervals to generate a solid (Figure 14-4).



Figure 14-3: Donner Lake Section with Mineralised Drill Hole Intervals Looking Northeast



Figure 14-4: Donner Lake Final Mineralised Model, Looking North

## 14.8 Resource Block Model

An unrotated block model was created for the deposit within NAD83 / UTM Zone 15N. The model had block dimensions of 5 m x 3 m x 5 m in the x (east), y (north) and z (elevation) directions and was restricted to the mineralised wireframe. The model is constrained in such a way that only the portion of the block that is within the wireframe is reported in the MRE. This is known as a percent block model.

The block size was selected based on the drill hole spacing, composite length, size and orientation of the deposit and the probable mining methods (open pit and U/G). At the scale of the deposit, this is considered to provide a reasonable block size for discerning the grade distribution within the model, while still being large enough not to mislead when looking at higher cut-off grade distribution within the model.

The block model parameters are summarised in Table 14-3.

Grid	x (east)	y (north)	z (elevation)
Origin (NAD83 / UTM Zone 10U)	315,348	5,609,339	-92
Corner Origin	315,345.5	5,609,337.5	-94.5
End Coordinate	318,163	5,611,175	398
Block Size	5	3	5
Number of Blocks	564	613	99

#### Table 14-3: Donner Lake Block Model Parameters

#### 14.9 Grade Interpolation

The composite data was analysed using variography, but the variograms created were not of sufficient quality for geostatistical analysis.

In place of the variographic analysis, search ellipse ranges were determined based on the drill hole spacing and the size and orientation of the deposit. The search ranges are summarised in Table 14-4.

Dynamic search ellipses were used for grade estimation purposes, in place of static anisotropic search ellipses. Within Genesis, a variable ellipsoid is generated within the block model function, which parallels the changes in orientation.

Lithium oxide grades were interpolated into blocks using Inverse Distance Squared (ID<sup>2</sup>) methodology, which was considered by Millar to be appropriate for the estimation. Grades were interpolated in three passes to capture the majority of the data. All blocks were classified as Inferred resources, regardless of which pass populated the block.

Grades were interpolated into blocks using criteria determined for the pegmatite bodies. For the Main Dyke, HW Main Dyke and NW Dyke, a minimum of 3 and maximum of 8 composites were used to generate block grades during the first and second passes, with a maximum of 2 sample composites per drill hole. For the third pass, a minimum of 2 samples and a maximum of 8 samples was used, with no limit on the number of composites per drill hole.

#### Table 14-6 shows the grade estimation parameters for the pegmatite bodies.

Figure 14-6 shows the final block model.

Name	Pass Number	Azimuth (Degrees)	Dip (Degrees)	Major (y) (m)	Median (z) (m)	Minor (x) (m)
Main Dyke	1	354	-90	30	30	5
Main Dyke	2	354	-90	60	60	5
Main Dyke	3	354	-90	90	90	50
HW Main Dyke	1	360	-90	30	30	5
HW Main Dyke	2	360	-90	60	60	5
HW Main Dyke	3	360	-90	90	90	50
NW Dyke	1	333	-90	30	30	5
NW Dyke	2	333	-90	60	60	60
NW Dyke	1	345	-90	30	30	5

Table 14-4: Donner Lake Block Search Ranges

#### 14.10 Model Validation

To validate the interpolation process, the block model grades were compared statistically to the assay and composite grades. The distribution of the assays, composites and blocks are normal (gaussian) and show similar average values with decreasing levels of variance (Table 14-6 and Figure 14-5). The assays and composites have average values of  $1.15 \text{ Li}_2 \text{O}\%$  and  $1.25 \text{ Li}_2 \text{O}\%$  with variances of 0.51 and 0.40 respectively. The interpolated blocks have an average value of  $1.11 \text{ Li}_2 \text{O}\%$  with a variance of 0.32. The decrease in variance from assays through composites to interpolated blocks is indicative of smoothing of grade and is expected in the block modelling process.

It is Millar's opinion that the level of smoothing is acceptable for this type of deposit.

	Assays Li <sub>2</sub> O%	Composites Li <sub>2</sub> O%	Block Model Li <sub>2</sub> O%
Min Value	0.0005	0.0005	0.0005
Max Value	2.93	2.79	2.61
Average	1.15	1.25	1.11
Length Weighted Average	1.26	1.25	N/A
Sum of Length	506.57	511.23	N/A
Variance	0.51	0.40	0.32
Standard Deviation	0.71	0.63	0.57
% Variation	0.62	0.51	0.51
Median	1.31	1.38	1.29
First Quartile	0.38	0.78	0.65
Third Quartile	1.70	1.71	1.56
Count	657.00	523.00	113984.00
Count Missing	0.0000	0.0000	1074.0000

Table 14-5: Comparison of Assays, Composites and Block Model for Donner Lake MRE



Figure 14-5: Statistical Comparison of Donner Lake Assay, Composite and Block Data

# 14.11 Mineral Resource Classification Parameters

This MRE for the Donner Lake Project is prepared and disclosed in compliance with all current disclosure requirements for mineral resources set out in the NI 43-101 Standards of Disclosure for Mineral Projects. The classification of the current MRE into an Inferred resource is consistent with current 2014 CIM Definition Standards - For Mineral Resources and Mineral Reserves ("2014 CIM Definitions"), including the critical requirement that all mineral resources "have reasonable prospects for eventual economic extraction". This MRE also complies, as best as possible, with the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines ("2019 CIM Guidelines").

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many lithium deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.



The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

#### Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

In the case of the Donner Lake MRE, it is Millar's opinion that the deposit satisfies the requirements to be reported as an Inferred Resource.

#### 14.12 Reasonable Prospects for Eventual Economic Extraction

The general requirement that all mineral resources have "reasonable prospects for eventual economic extraction" implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade taking into account extraction scenarios and processing recoveries. In order to meet this requirement, the lithium mineralisation at the Donner Lake deposit is considered amenable to open pit extraction and underground mining.

To determine the quantity of material representing "reasonable prospects for eventual economic extraction" by an open pit mining method, Whittle pit optimization software was used with reasonable mining and economic assumptions. The pit optimisation parameters used are summarised in Table 14-6. A conservative and balanced approach was applied when optimising the open pit scenario. A Whittle pit shell at a revenue factor of 0.52 was selected as the ultimate pit shell for the Main Dyke and HW Main Dyke model, while a revenue factor 0.72 shell was selected for the NW Dyke model for the purposes of the MRE for the Donner Lake deposit.

Figure 14-6 shows the optimised pits with the block model.

The reader is cautioned that the results from the pit optimisation are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. The results are used as a guide to assist in the preparation of a mineral resource statement and to select an appropriate resource reporting cut-off grade.

In order to determine the quantities of material offering "reasonable prospects for eventual economic extraction" by underground mining methods, reasonable mining assumptions to evaluate the proportions of the block model that could be "reasonably expected" to be mined from underground are used. For the underground component of the MRE, a cut-off grade of 0.5 Li<sub>2</sub>O% was calculated, based on the parameters shown in Table 14-6. Based on the size, shape, and orientation of the deposit, it is envisioned that the deposit may be mined using sublevel stoping. The underground mineral resource grade blocks were quantified above the base case cut-off grade, below the constraining pit shell and within the constraining mineralised wireframes. Figure 14-7 shows the underground component of the block model.

Parameter	USD	Unit
Lithium Concentrate Price	\$1,800.00	\$ per tonne conc conc. grade Li <sub>2</sub> O of 6%
	\$30,000.00	$\$ per tonne conc conc. grade Li_2O of 100%
In-Pit Mining Cost (waste and mill feed)	\$3.50	\$ per tonne mined
Processing Cost	\$25.00	\$ per tonne milled
G&A	\$15.00	\$ per tonne milled
Trucking Cost	\$5.00	\$ per tonne trucked
U/G Mining Cost	\$60.00	\$ per tonne mined
Overall Pit Slope	55	Degrees
Lithium Recovery - Main Deposit	74.1	Percent (%)
Lithium Recovery - NW Deposit	76.9	Percent (%)
Mining loss / Dilution (open pit)	5/5	Percent (%) / Percent (%)
Cut-Off Grade Open Pit		0.3% Li <sub>2</sub> O
Cut-Off Grade U/G		0.5% Li <sub>2</sub> O

Table 14-6: Donner Lake Open Pit Optimisation and Underground Cut-Off Parameters



Figure 14-6: Donner Lake Optimised Pits with Block Model



Figure 14-7: Donner Lake Underground Mineral Resources, Looking North
### 14.13 Sensitivity to Cut-Off Grade

The Donner Lake deposit mineral resource has been estimated at a range of cut-off grades to demonstrate the sensitivity of the resource to cut-off grades. The current mineral resources are reported at a cut-off grade of 0.3 Li<sub>2</sub>O% within conceptual pit shells (Table 14-7) and below-pit Mineral Resources are reported at a cut-off grade of 0.5 Li<sub>2</sub>O% below the conceptual pit shells (Table 14-8).

Open Pit Sensitivity Analysis								
	Main Dyke		HW Main Dyke		NW Dyke		Total	
	Tonnes	Li <sub>2</sub> 0%	Tonnes	Li <sub>2</sub> 0%	Tonnes	Li <sub>2</sub> O%	Tonnes	Li <sub>2</sub> O%
0.0	1,120,000	1.47	25,000	1.28	957,000	1.36	2,102,000	1.42
0.1	1,120,000	1.47	25,000	1.28	957,000	1.36	2,102,000	1.42
0.2	1,120,000	1.47	25,000	1.28	957,000	1.36	2,102,000	1.42
0.3	1,119,000	1.48	25,000	1.28	955,000	1.36	2,099,000	1.42
0.4	1,118,000	1.48	25,000	1.30	952,000	1.36	2,095,000	1.42
0.5	1,117,000	1.48	24,000	1.32	949,000	1.37	2,090,000	1.43
0.6	1,114,000	1.48	24,000	1.35	937,000	1.38	2,075,000	1.43
0.7	1,110,000	1.48	23,000	1.37	918,000	1.39	2,051,000	1.44
0.8	1,105,000	1.49	22,000	1.39	891,000	1.41	2,018,000	1.45
0.9	1,093,000	1.49	22,000	1.40	855,000	1.43	1,970,000	1.46
1.0	1,074,000	1.50	20,000	1.43	811,000	1.46	1,905,000	1.48

(1) Values in this table reported above and below the base case cut-off grade of 0.3 Li<sub>2</sub>O% should not be misconstrued with a Mineral Resource Statement. The values are only presented to show the sensitivity of the block model estimates to the selection of cut-off grade.

(2) The effective date of this sensitivity analysis is the  $27^{th}$  June 2023.

Underground Sensitivity Analysis								
	Main Dyke		HW Main Dyke		NW Dyke		Total	
	Tonnes	Li <sub>2</sub> 0%	Tonnes	Li <sub>2</sub> 0%	Tonnes	Li <sub>2</sub> O%	Tonnes	Li <sub>2</sub> O%
0.0	3,853,000	1.29	724,000	0.65	1,408,000	0.91	5,985,000	1.13
0.1	3,578000	1.39	627,000	0.75	1,405,000	0.91	5,610,000	1.20
0.2	3,464,000	1.43	536,000	0.85	1,383,000	0.93	5,383,000	1.24
0.3	3,437,000	1.44	409,000	1.04	1,268,000	0.99	5,114,000	1.30
0.4	3,418,000	1.45	345,000	1.16	1,185,000	1.03	4,948,000	1.33
0.5	3,352,000	1.47	316,000	1.23	1,042,000	1.11	4,710,000	1.37
0.6	3,326,000	1.47	290,000	1.29	906,000	1.20	4,522,000	1.41
0.7	3,291,000	1.48	270,000	1.34	800,000	1.27	4,361,000	1.43
0.8	3,250,000	1.49	248,000	1.39	735,000	1.32	4,233,000	1.46
0.9	3,168,000	1.51	229,000	1.43	680,000	1.35	4,077,000	1.48
1.0	3,073,000	1.53	202,000	1.50	602,000	1.41	3,877,000	1.51

Table 14-8: Donner Lake Underground F	Resource Grade Sensitivity
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(1) Values in this table reported above and below the base case cut-off grade of 0.5 Li<sub>2</sub>O% should not be misconstrued with a Mineral Resource Statement. The values are only presented to show the sensitivity of the block model estimates to the selection of cut-off grade.

(2) The effective date of this sensitivity analysis is the 27<sup>th</sup> June 2023.

#### 14.14 Mineral Resource Statement

The Mineral Resource Estimate is reported in Table 14-9 using an  $Li_2O\%$  cut-off grade of 0.3 for open pit and 0.5 for underground. The mineral resources are constrained by the topography and based on the conceptual economic parameters detailed in Table 14-6. The estimate has an effective date of the 27<sup>th</sup> June, 2023. The Qualified Person for the estimate is Rohan Millar, P.Geo., an SGS employee.

Classification (Cut-Off Grade)	Deposit	Inferred Resource (tonnes)	Grade (Li <sub>2</sub> 0%)	
Onen Bit	Main Dyke	1,145,000	1.48%	
	NW Dyke	NW Dyke 955,000		
(0.3% LI <sub>2</sub> O)	Total	2,100,000	1.42%	
	•		•	
	Main Dyke	3,669,000	1.45%	
	NW Dyke	1,042,000	1.11%	
(0.5% Ll <sub>2</sub> O)	Total	4,710,000	1.37%	
		· · · ·	•	
	Main Dyke	4,814,000	1.46%	
GLOBAL	NW Dyke	1,997,000	1.23%	
	Total	6,810,000	1.39%	

Гable 14-9: Do	onner Lake Project	<b>Mineral Resource</b>	Estimate, 27th	<sup>1</sup> June 2023
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- (1) The Mineral Resource Estimate (MRE) has an effective date of the 27<sup>th</sup> June, 2023. The Qualified Person for the MRE is Mr. Rohan Millar, P.Geo. an employee of SGS.
- (2) The classification of the current Mineral Resource Estimate into Inferred Resource is consistent with current 2014 CIM Definition Standards For Mineral Resources and Mineral Reserves.
- (3) All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.
- (4) All Resources are presented undiluted and in situ, constrained by continuous 3D wireframe models, and are considered to have reasonable prospects for eventual economic extraction.
- (5) Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- (6) It is envisioned that parts of the Donner Lake deposit may be mined using open pit mining methods. In-pit mineral resources are reported at a cut-off grade of 0.3% Li2O within a conceptual pit shell.
- (7) The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Property. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.
- (8) Underground (below-pit) Mineral Resources are estimated from the bottom of the pit and are reported at a base case cut-off grade of 0.5% Li2O. The underground Mineral Resource grade blocks were quantified above the base case cut-off grade, below the constraining pit shell and within the constraining mineralised wireframes. At this base case cut-off grade the deposit shows good deposit continuity with no orphaned blocks.
- (9) Bulk density values (specific gravity 2.7 grams per cubic centimetre) were determined based on physical test work from each deposit.
- (10) The in-pit base case cut-off grade of 0.3% Li<sub>2</sub>O considers a lithium concentrate 6% (LC6) Li2O price of US\$1800/tonne, a mining cost of US\$3.50/t rock and processing, treatment and refining,

transportation and G&A cost of US\$45.00/t mineralised material, and an overall pit slope of 55 degrees.

- (11) The below-pit base case cut-off grade of 0.5% Li<sub>2</sub>O considers a lithium concentrate 6% (LC6) Li2O price of US\$1800/tonne, a mining cost of US\$60.00/t rock and processing, treatment and refining, transportation, and G&A cost of US\$45.00/t mineralised material.
- (12) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

#### 14.15 Disclosure

All relevant data and information regarding the Project are included in other sections of this Technical Report. There is no other relevant data or information available that is necessary to make the technical report understandable and not misleading.

Millar is not aware of any known mining, processing, metallurgical, environmental, infrastructure, economic, permitting, legal, title, taxation, socio-political, or marketing issues, or any other relevant factors not reported in this technical report, that could materially affect the current Mineral Resource Estimate.

# 15 MINERAL RESERVE ESTIMATE

There are no Mineral Reserve Estimates for the Property.

# **16 MINING METHODS**

# **17 RECOVERY METHODS**

# **18 PROJECT INFRASTRUCTURE**

# **19 MARKET STUDIES AND CONTRACTS**

# 20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

# 21 CAPITAL AND OPERATING COSTS

# 22 ECONOMIC ANALYSIS

# **23 ADJACENT PROPERTIES**

The authors note that Grid Metals is the majority owner of the adjacent Mayville Cu-Ni-PGM property and the M2 Cu-Ni-PGM deposit, which contains a 43-101 Compliant Indicated and Inferred Mineral Resource (RPA Associates Inc., 2014) and is a going concern for the Company. Potential economic and infrastructure synergies could exist between the Donner Lake and Mayville projects should both advance to production on similar timelines. The Company also recently acquired by staking two separate blocks of claims located several km to the east of the Project – but both are grassroots properties that are not currently known to host any significant lithium mineralization. Competitor companies, including New Age Metals (via Lithium Canada Development Inc.), Quantum Minerals Corp. and Acme Lithium Inc. hold claims covering historical LCT-type pegmatite occurrences to the east of the east of the Donner Lake Property and have been actively exploring their respective properties over the past 2-3 years.

# 24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information available that is necessary to make the technical report understandable and not misleading. To the Authors' knowledge, there are no significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information or MRE.

### 25 INTERPRETATION AND CONCLUSIONS

SGS was contracted by Grid to complete a MRE for the Donner Lake deposit, located approximately 120 km northeast of the city of Winnipeg, Manitoba, Canada, and to prepare a Technical Report written in support of the MRE. The reporting of the MRE complies with all disclosure requirements for Mineral Resources set out in the NI 43-101 Standards of Disclosure for Mineral Projects. The classification of the Mineral Resource is consistent with the 2014 CIM Definitions and adhere, as best as possible, to the 2019 CIM Guidelines.

Completion of the current MRE involved the review of available written reports, assessment of the drill hole database, which included all data for drilling completed between 1995 and 2023, the creation of a three-dimensional (3D) grade-controlled wireframe model, the actual resource estimate, and the resource classification (Inferred resource).

Inverse Distance Squared ("ID<sup>2</sup>") restricted to a grade-controlled wireframe model was used to Interpolate lithium grades into a block model. The MRE takes into consideration that the current Deposit will likely be mined by open pit and underground mining methods.

The 2023 MRE for the Donner Lake deposit is presented in Table 14-9.

Highlights of the Donner Lake MRE are:

- The open pit mineral resource includes, at a base case cut-off grade of 0.3% Li<sub>2</sub>O 2.1 Mt at a grade of 1.42% in the Inferred category.
- The U/G mineral resource includes, at a base case cut-off grade of 0.5% Li<sub>2</sub>O 4.7 Mt at a grade of 1.37% in the Inferred category.

All geological data has been reviewed and verified by Millar and Sayeed as being accurate to the extent possible and to the extent possible all geologic information was reviewed and confirmed. There were no material errors or issues identified with the database. Millar and Sayeed are of the opinion that the database is of sufficient quality to be used for the current MRE.

There is no other relevant data or information available that is necessary to make the Technical Report understandable and not misleading. Millar and Sayeed are not aware of any known mining, processing, metallurgical, environmental, infrastructure, economic, permitting, legal, title, taxation, socio-political, or marketing issues, or any other relevant factors not reported in this Technical Report, that could materially affect the current MRE.

The Mineral Resources are constrained by the topography and based on the conceptual economic parameters stated in the notes supporting Table 14-9. The Donner Lake estimate has an effective date of the 27<sup>th</sup> June, 2023. The QP for the estimate is Mr. Rohan Millar, P.Geo., an employee of SGS Canada Inc.

#### 25.1 **Risks**

The following risks are highlighted for the project:

- The Inferred Resource is based on the available information and although it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated or Measured Mineral Resources with infill drilling, it is not guaranteed.
- Delays in receiving exploration permits
- Lithium market sale price and demand (commercial trends)

• Fluctuations in exchange rates and inflation

### 25.2 **Opportunities**

- There is potential on the Property to extend all the modelled pegmatites along strike and at depth.
- There is the potential for upgrading some or all Inferred Mineral Resources to higher-confidence categories and eventually conversion to Mineral Reserves.
- There is potential on the Property for the discovery of further mineralised LCT pegmatites.

### **26 RECOMMENDATIONS**

Exploration field work has been undertaken by Grid on the Property for summer 2023, comprising a geological mapping and soil sampling program across the Property, at an estimated cost of \$300,000.

Grid have also proposed a 4,000 m diamond drill program for Q4 2023 extending into Q1 2024. The program would run over 3 months and comprise a 1-2 rig exploration drill program (Nov-Jan approximately) targeting near surface pegmatite occurrences mainly near the Main and NW dykes (e.g., South dykes, SW dykes, High Grade dyke) and potential near surface pegmatites inferred from geochemical anomalies (rock +/- soil +/- vegetation). The total cost of the program is estimated at \$928,000 including a 15% contingency. Table 26-1 outlines the proposed program and costs.

Millar and Sayeed have reviewed the proposed programs for further work on the Property and, considering the observations made in this report, support the concepts as outlined by Grid. Given the prospective nature of the Property, it is the opinion of Millar and Sayeed that the Property merits further exploration and that Grid's proposed plans for further work are justified.

Millar and Sayeed recommend that Grid conducts the proposed exploration, subject to funding and any other matters which may cause the proposed exploration programs to be altered in the normal course of its business activities or alterations which may affect the program as a result of exploration activities themselves.

Item	Units	Rate	Days	Amount
Diamond Drilling Including Mob & Demob	4000	150		\$600,000
Senior Geologist (supervision)	1	800	60	\$48,000
Project Geologists	2	500	60	\$30,000
Geotechnicians	4	400	60	\$24,000
Equipment, Consumables, Fuel				\$10,000
Rock Sample Analysis	1000	75		\$75,000
Senior Management		1000	20	\$20,000
	Subtotal			\$807,000
15% Contingency				\$121,050
	Grand total			\$928,050

#### Table 26-1: Recommended 2023-2024 Work Program for Donner Lake Project

### **27 REFERENCES**

Anderson, S.D., Černý, P., Halden, N.M., Chapman, R. and Uher, P., 1998: The Yitt-B pegmatite swarm at Bernic Lake, Southeastern

Manitoba: a geochemical and paragenetic anomaly; Canadian, Mineralogist, v. 36, p. 283-301.

Atencio, D., Andrade, M.B., Christy, A.G., Gieré, R. and Kartashov, P.M. 2010: The pyrochlore supergroup of minerals: nomenclature; Canadian Mineralogist, v. 48, p. 673-698.

Baadsgaard, H. and Černý, P. 1993: Geochronological studies in the Winnipeg River pegmatite populations, southeastern Manitoba; Geological Association of Canada–Mineralogical Association of Canada, Joint Annual Meeting, Program with Abstracts, v. 18, p. A5.

Bannatyne, B.B. 1985: Industrial minerals in rare-element pegmatites of Manitoba; Manitoba Energy and Mines, Geological Services, Economic Geology Report ER84-1, 96 p. Benton, W. and Turner, J. 2000: Cesium formate fluid succeeds in North Sea HPHT field trials; Drilling Contractor, p. 38-41.

Brangetto, M., Pasturel, C., Gregoire, M., Ligertwood, J., Downs, J., Harris, M. and Turner, J. 2007: Caesium formate brines used as workover, suspension fluids in HPHT field development; Drilling Contractor, p.109-111.

Burke, E.A.J. 2008: Tidying up mineral names: an IMA-CNMNC scheme for suffixes, hyphens and diacritical marksm; The Mineralogical Record v.39, p. 131-135.

Cabot Corporation 2012 <http://www.cabot-corp.com/wcm/download/en-us/sp/TANCO1.pdf> (accessed October 4th, 2012).

Camacho, A., Baadsgaard, H., Davis, D.W., and Černý, P. 2012: Radiogenic isotope systematic of the Tanco and Silverleaf granite pegmatites, Winnipeg River pegmatite district, Manitoba; Canadian Mineralogist, v. 50, p. 1775-1792.

Černý, P. 1972: The Tanco pegmatite at Bernic Lake, Manitoba. VII. Eucryptite; Canadian Mineralogist, v. 11, p. 708-713.

Černý, P. 2005: The Tanco rare-element pegmatite deposit, Manitoba: Regional context, internal anatomy, and global comparisons; in Linnen, R.L., and Samson, I.M., eds., Rare-Element Geochemistry and Mineral Deposits: Geological Association of Canada, GAC Short Course Notes 17, p. 127-158.

Černý, P. and Ercit, S. 2005: The classification of granitic pegmatites revisited; Canadian Mineralogist, v. 43, p. 2005-2026.

Černý, P., Ercit, T. and Vanstone, P. 1996: Petrology and mineralization of the Tanco rare-element pegmatite, Southeastern Manitoba (Field Trip A3). Geological Association of Canada – Mineralogical Association of Canada,63p.

Černý, P., Ercit, T. and Vanstone, P. 1998: Mineralogy and Petrology of the Tanco rare-element pegmatite deposit, Southeastern Manitoba (Field trip Guidebook B6); International Mineralogical Association. 17th General Meeting, Toronto, 74 p.

Černý, P., Trueman, D.L., Ziehlke, D.V., Goad, B.E. and Paul, B.J. 1981: The Cat Lake-Winnipeg River and the Wekusko Lake pegmatite fields, Manitoba; Manitoba Energy and Mines, Manitoba

Resources Division, Economic Geology Report ER80-1, 215 p. Cooper, M.A., Hawthorne, F.C., Ball, N.A., Ramik R.A. and Roberts, A.C. 2009: Groatite, Na Ca Mn2+2 (PO4) [PO3 (OH)]2, a new mineral species



of the alluaudite from the Tanco pegmatite, Bernic Lake, Manitoba, Canada: description and crystal structure; Canadian Mineralogist, v. 47, p. 1225-1235.

Duguet, M., Lin, S., Gilbert, H.P., and Corkery, M.T. 2005: Preliminary results of geological mapping and structural analysis of the Bird River greenstone belt, southeastern Manitoba (NTS 52L5 and 6): in Report of Activities 2005, Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, p.117–124.

Duguet, M., Gilbert, H.P., Corkery, M.T. and Lin, S. 2006: Geology and structure of the Bird River Belt, southeastern Manitoba (NTS 52L5 and 6); in Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 170–183.

Ercit, T.S., Hawthorne, F.C. and Černý, P. 1992: The wodginite group. I. Structural crystallography. Canadian Mineralogist v. 30, 597-611.

Fransolet, A.-M., Cooper, M.A., Černý, P., Hawthorne, F.C., Chapman, R. and Grice, J.D. 2000: The Tanco pegmatite at Bernic Lake, southeastern Manitoba. XV. Ercitite, Na,Mn3+PO4(OH) (H2O)2, a new phosphate mineral species, Canadian Mineralogist v. 38, p.893-898.

Gilbert, H.P. 2005: Geological investigations in the Bird River area, southeastern Manitoba (parts of NTS 52L5N and 6N); in Report of Activities 2005, Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, p. 125-139.

Gilbert, H.P. 2006: Geological investigations in the Bird River area, southeastern Manitoba (parts of NTS 52L5N and 6); in Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 184–205.

Gilbert, H.P. 2007: Stratigraphic investigations in the Bird River greenstone belt, Manitoba (part of NTS 52L5, 6); in Report of Activities 2007, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 129–143.

Gilbert, H.P., 2008: Stratigraphic investigations in the Bird River greenstone belt, Manitoba (part of NTS 52L5, 6); in Report of Activities 2008, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 121–138.

Gilbert, H.P., Davis, W.D., Duguet, M., Kremer, P.D., Mealin, C.A. and MacDonald J. 2008: Geology of the Bird River Belt, southeastern Manitoba (parts of NTS 52L5, 6); Geoscientific Map MAP2008-1.

Gilbert, Y. and Pessala, P. 2009: Cesium formate and Zinc bromide: Comparative Hazard Assessment and HSE Profiles; Gaia Consulting OY, 48 p.

Hutchinson, R.W. 1959: Geology of the Montgary Pegmatite [Manitoba]. Economic Geology, v. 54, p. 1525-1542.

Kissin, S.A., Owens, D.R. and Roberts, W.L. 1978: Černýite, a copper - cadmium - tin sulfide with the stannite structure; Canadian Mineralogist, v. 16, p. 139-146.

Kremer, P.D. and Lin, S. 2006: Structural geology of the Bernic Lake area, Bird River greenstone belt, southeastern Manitoba (NTS 52L6): implications for rare element pegmatite emplacement; in Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 206–213.

Kremer, P.D. 2010: Structural geology and geochronology of the Bernic Lake area in the Bird River greenstone belt, Manitoba: Evidence for syn-deformational emplacement of the Bernic Lake pegmatite group; M.Sc. thesis, University of Waterloo 91pp.

Open File OF2013-8 17 Lenton, P.G. 1979: Mineralogy and petrology of the Buck Claim lithium pegmatite, Bernic Lake, Southeastern Manitoba; M.Sc. thesis, University of Manitoba, 164 p.

London, D. 1985: Origin and significance of inclusions in quartz: a cautionary example from the Tanco pegmatite; Manitoba, Economic Geology, v. 80, p. 1988-1995.

London, D., Zolensky, M.E. and Roedder, E. 1987: Diomignite: natural Li2 B4 O7 from the Tanco pegmatite, Bernic Lake, Manitoba; Canadian Mineralogist, v. 25, p. 173-180.

Manitoba Science, Technology, Energy and Mines, 1988a Mineral Inventory File No. 187; http://www.manitoba.ca/iem/mrd/mined/minfacts/mbhistory/mininv/187.htm (accessed October 4th 2012). Manitoba Science, Technology, Energy and Mines, 1988b Mineral Inventory File No. 197; http://www.manitoba.ca/iem/mrd/mined/minfacts/mbhistory/mininv/197.htm (accessed October 4th 2012).

Manitoba Science, Technology, Energy and Mines, 1988c Mineral Inventory File No. 209; http://www2.gov.mb.ca/dbtw-wpd/exec/dbtwpub.dll?AC=GET\_RECORD&XC=/dbtwwpd/exec/dbtwpub.dll&BU=http%3A%2F%2Fwww2.gov.mb.ca%2Fltmcat%2Fweb%2Fminsearch.html&T N=MINERA~1&SN=AUTO23126&SE=1941&RN=10&MR=0&TR=0&TX=1000&ES=1&CS=2&XP=&RF= Web%3A+Brief&EF=Basic+Record+Form&DF=Viewing+PrintingWeb&RL=1&EL=1&DL=1&NP=3&ID=&M F=&MQ=&TI=0&DT=&ST=0&IR=206&NR=0&NB=0&SV=0&SS=1&BG=&FG=&QS=mininventorytest&OE X=ISO8859-1&OEH=ISO-8859-1> (accessed October 4th 2012).

Manitoba Science, Technology, Energy and Mines, 1988d Mineral Inventory File No. 213; <a href="http://www.manitoba.ca/iem/mrd/mined/minfacts/mbhistory/mininv/213.htm">http://www.manitoba.ca/iem/mrd/mined/minfacts/mbhistory/mininv/213.htm</a>> (accessed October 4th 2012).

Mealin, C.A. 2008: Geology, geochemistry and Cr-Ni-Cu-PGE mineralization of the Bird River sill: evidence for a multiple intrusion model; MSc thesis, University of Waterloo, Waterloo, Ontario, 155 p.

Percival, J.A., Sanborn-Barrie, M., Skulski, T., Stott, G.M., Helmstaedt, H. and White, D.J. 2006: Tectonic evolution of the western Superior Province from NATMAP and LITHOPROBE studies; Canadian Journal of Earth Sciences, v. 43, p. 1085–1117.

Ramik, R.A., Sturman, B.D., Dunn, P.J. and Povarennykh, A.S. 1980:Tancoite, a new lithium sodium aluminum phosphate from the Tanco pegmatite, Bernic Lake, Manitoba, Canadian Mineralogist, v.18, p. 185-190.

RPA Associates, Inc., 2014. Technical Report on the Preliminary Economic Assessment of the Combined Mayville-Makwa Project, Manitoba, Canada, 281 p.

Scoates, J.S. and Scoates, R.F.J 2013: Age of the Bird River Sill, southeastern Manitoba, Canada, with implications for the secular variation of layered intrusion-hosted stratiform chromite mineralization; Economic Geology, v. 108, 13p.

Stilling, A., Černý, P. and Vanstone, P.J. 2006: The Tanco pegmatite at Bernic Lake, Manitoba. XVI. zonal and bulk composition and their petrogenetic significance; Canadian Mineralogist, v. 44, p. 599-623.

Stott, G.M., Corkery, M.T., Percival, J.A., Simard, M. and Goutier, J.2010: Project units 98-006 and 98-007. A revised terrane subdivision of the Superior Province; in Summary of Field Work and Other Activities 2010, Ontario Geological Survey, Open File Report 6260, p. 20-1 - 20-10.

Trueman, D.L. 1980: Stratigraphy, structure and metamorphic petrology of the Archean greenstone belt at Bird River, Manitoba; Ph.D. thesis, University of Manitoba, Winnipeg, Manitoba, 150 p. van Lichtervelde, M., Linnen, R.L., Salvi, S. and Didier, B. 2006:

Evaluating the role of metagabbro rafts on tantalum mineralization in the Tanco pegmatite; Manitoba; Canadian Mineralogist v. 44, p. 625-644. van Lichtervelde, M., Salvi, S., Béziat, D. and Linnen, R.L. 2007: Textural Features and Chemical Evolution in Tantalum Oxides: Magmatic Versus Hydrothermal Origins for Ta Mineralization in the Tanco Lower Pegmatite, Manitoba, Canada; Economic Geology, v. 102, p. 257-276. van Lichtervelde, M., Grégoire, M., Linnen, R.L., Béziat, D. and Salvi,S. 2008: Trace element geochemistry by laser ablation ICP-MS of micas associated with Ta mineralization in the Tanco pegmatite, Manitoba, Canada; Contributions to Mineralogy and Petrology,v. 155,p. 791-806.

Vanstone, P., Young, S., Galeschuk, C., Simard, R. and Gibb, A. 2005: The Tanco Rare-element pegmatite,

Southeastern Manitoba; Tantalum Mining Corporation of Canada Limited, 22p. Wang, X. 1993: U-Pb zircon geochronology study of the Bird River greenstone belt, southeastern Manitoba; M.Sc. thesis, University of Windsor, Windsor, Ontario, 96 p.

XPS- Expert Process Solutions, "Mineralogy and Flotation Report", January 20, 2019

XPS- Expert Process Solutions, "Grid Metals Lithium Project Initial Metallurgical Testing Program", March 24, 2023

### 28 DATE AND SIGNATURE PAGE

This report titled "Mineral Resource Estimate for Grid Metals Corp., Donner Lake Project, near Winnipeg, Manitoba, Canada" dated 1<sup>st</sup> September, 2023 (the "Technical Report") for Grid Metals Corp. was prepared and signed by the following authors:

The effective date of the report June 27, 2023 The date of the report is 1<sup>st</sup> September, 2023.

Signed by:

Qualified Person Rohan Millar, B.Sc., P.Geo. Faisal Sayeed, B.Sc., P.Geo. Ian Ward, P.Eng. Company SGS Canada Inc. ("SGS") SGS Canada Inc. ("SGS") Ian Ward Consulting Services ("Ian Ward")

1<sup>st</sup> September, 2023

## **29 CERTIFICATES OF QUALIFIED PERSONS**

### **QP CERTIFICATE – ROHAN MILLAR**

To accompany the report entitled: "Mineral Resource Estimate for the Donner Lake Lithium Property Manitoba, Canada", dated the 1<sup>st</sup> September, 2023 and with an effective date of June 27, 2023.

I, Rohan Millar, P.Geo., of 84 High St S, Thunder Bay, Ontario, do hereby certify that:

- 1. I am a Senior Geologist with SGS Geological Services, 10 Boul. de la Seigneurie Est, Suite 203, Blainville Quebec Canada, J7C 3V5
- 2. I am a graduate from the University of New England, New South Wales, Australia in 1994 with a B.Sc. (Hons) in geology.
- 3. I am a member in good standing with Professional Geoscientists Ontario (Licence No.1500; 2007).
- 4. I have practiced my profession continuously since 1994. I have 28 years of experience in mining and exploration for various metallic minerals. I have prepared and made several mineral resource estimations for different exploration projects at different stages of exploration since 1999. I am aware of the different methods of estimation and the geostatistics applied to metallic mineral projects.
- 5. I have read the definition of "qualified person" set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101.
- 6. I am responsible for sections 1.8 and 1.11 and section 14 of the report, together with the relevant portions of section 1.12, section 11, section 25 and section 26. I have reviewed these sections and accept professional responsibility for these sections of the Technical Report.
- 7. I did not conduct a site visit to the Property.
- 8. I have had no prior involvement with the Property that is the subject of the Technical Report.
- 9. I am independent of Grid Metals Corp. as defined by Section 1.5 of NI 43-101.
- 10. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 11. I have read NI 43-101 and Form 43-101F1 (the "Form"), and the Technical Report has been prepared in compliance with NI 43-101 and the Form.

Signed and dated this 1<sup>st</sup> day of September 2023 at Thunder Bay, Ontario.

"Original Signed and Sealed"

Rohan Millar, P.Geo., SGS Canada Inc.

### **QP CERTIFICATE – FAISAL SAYEED, P.Geo.**

To accompany the report entitled: "Mineral Resource Estimate for the Donner Lake Lithium Property Manitoba, Canada", dated 1<sup>st</sup> September, 2023 and with an effective date of June 27, 2023

I, Faisal Sayeed, P.Geo. of 2136, Argyle Street, Regina, Saskatchewan, hereby certify that:

- 1. I am a Senior Geologist with SGS Canada Inc., 10 de la Seigneurie E blvd., Unit 203 Blainville, QC, Canada, J7C 3V5.
- 2. I am a graduate of University of Saskatchewan, Saskatoon, Canada having obtained the degree of Bachelor of Science Geology in 2003.
- 3. I have been involved in mine geology, mineral exploration, including in producing mines, since 2004. I have participated in mineral resource estimation since 2010 in Canada and internationally.
- 4. I am a member of the Association of Professional Engineers, Geologists Saskatchewan (APEGS with License No. 50369) and with the Association of Professional Engineers and Geologists of Northwest Territories and Nunavut (NAPEG, License No. L4865) and use the title of Professional Geoscientist (P.Geo.).
- 5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43 101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43 101.
- 6. I am responsible for sections 1.1 to 1.7, section 1.9, sections 2 to 10, section 12 and section 27 of the report, together with the relevant portions of section 1.12, section 11, section 25 and section 26. I have reviewed these sections and accept professional responsibility for these sections of the Technical Report.
- 7. I have visited and inspected the Property on June 7, 2023.
- 8. I have had no prior involvement with the subject Property or with the issuer of this report (Grid Metals Corp.).
- 9. I am independent of the Company as described in Section 1.5 of NI 43-101.
- 10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 11. I have read NI 43-101 and Form 43-101F1 (the "Form"), and the Technical Report has been prepared in compliance with NI 43-101 and the Form.

Signed and dated this 1<sup>st</sup> day of September 2023 at Regina, Saskatchewan

"Original Signed and Sealed"

Faisal Sayeed, P. Geo., SGS Canada Inc.

# **QP CERTIFICATE – IAN WARD, P.Eng.**

This certificate applies to the NI 43-101 Technical Report titled "Mineral Resource Estimate for the Donner Lake Lithium Property, Manitoba, Canada", (the "Technical Report"), prepared for Grid Metals Corp. dated the 1<sup>st</sup> September 2023, with an effective date of June 27, 2023.

I, Ian Ward, P.Eng., as a co-author of the Technical Report, do hereby certify that:

- 1. I am self employed and Principal at Ian Ward Consulting Services, located at 15 Herbert Avenue, Toronto, Ontario, Canada.
- 2. I am a graduate of the University of Birmingham, UK in 1968 with the degree of B.Sc. (Hons) Minerals Engineering.
- 3. I am a member in good standing of Professional Engineers Ontario (Reg. #48869010). I have worked continuously as a Professional Engineer/metallurgist in the minerals industry, for mining companies, consulting engineering companies, and as an independent consultant, for the last 46 years since initial registration in 1977.
- 4. My relevant experience includes management of technical and feasibility studies, processing plant audits and evaluations, management of metallurgical testing programs and the design plus start-up of numerous processing plants. During the last 15 years I have been responsible for supervising a number of metallurgical testing programs, analysing the results and developing plant design criteria based on the selected results.
- I have read the definition of "Qualified Person" set out in the NI 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
- 6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
- 7. I am author and responsible for the preparation of section 1.10 and section 13 of the Technical Report.
- 8. I have not visited the Donner Lake Property that is the subject of the Technical Report, as it was not required for the purpose of this mandate.
- 9. I have had no prior involvement with the Property that is the subject of the Technical Report.
- 10. I have read NI 43-101, and the sections of the Technical Report for which I am responsible have been prepared following NI 43-101 rules and regulations.
- 11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 1st day of September 2023.

Original signed and sealed on file Ian Ward, P.Eng. Ian Ward Consulting Services