ABH Engineering

Moving Forward, Together.

Technical Report Summary

Initial Assessment of the Snow Lake Lithium Project

Manitoba, Canada

Prepared for:

Snow Lake Resources Ltd., d/b/a Snow Lake Lithium Ltd.

SNOW LAKE RESOURCES™

Prepared by:

ABH Engineering Inc.

SLR Consulting (Canada) Ltd.

Effective Date: 12 July 2023

Report Date: 9 August 2023

Date and Signature Page

This technical report titled "Initial Assessment of the Snow Lake Lithium Project Manitoba, Canada" is effective as of July 12, 2023 and has been prepared by

Section(s)	Responsible Qualified Person(s) or Consulting Firm	Signature	Date Signed
Section 1, Section 2, Section 3, Section 4, Section 5, Section 6, Section 7, Section 8, Section 9, Section 10, Section 11, Section 12, Section 13, Section 14, Section 15, Section 16, Section 18, Section 19, Section 20, Section 21, Section 22, Section 23, Section 24, Section 25, Section 26	ABH Engineering Inc.	"Signed"	August 9, 2023
Section 1.10, Section 17, Section 22.5, Section 23.5	SLR Consulting Ltd.	"Signed"	August 9, 2023

List of Acronyms

AACE	American Association of Cost Engineers
ABH	ABH Engineering Inc.
AI	Abrasion Index
AIM	AIM Power Solutions
BWI	Bond Ball Work Index
CAPEX	Capital Expenditures
CAT	Caterpillar Inc.
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
Corp	Corporation
CRM	Certified Reference Material
DGPS	Differential Global Positioning System
DMS	Dense Media Separation
DSO	Direct Shipping Ore
EDA	Flotigam EDA (ether monoamine collector)
EV	Electric Vehicle
F80	Feed Particle Size at 80% Passing
FA2	Sylfat FA2 (fatty acid collector)
G&A	General and Administrative
GPS	Global Positioning System
GR	Grass River
GRL	Grass River Lithium
HLS	Heavy Liquid Separation
IAA	Impact Assessment Act
ICE	Internal Combustion Engine Vehicles
ICP	Inductively Coupled Plasma
ICPAES	Inductively Coupled Plasma Atomic Emission Spectrometry
ICPMS	Inductively Coupled Plasma Mass Spectrometry
Inc	Incorporation
IRR	Internal Rate of Return

ISO/IEC	International Organization for Standardization / International Electrotechnical Commission
JORC	Joint Ore Reserve Committee
LCE	Lithium Carbonate Equivalent
LCT	Lithium, Cesium, and Tantalum
LHD	Load Haul Dump
LOM	Life of Mine
Ltd	Limited
MCA	Mineral Claims Area
MMDF	Manitoba Mineral Development Fund
N	North
NAD83	North American Datum of 1983
NE	Northeast
NI 43-101	National Instrument 43-101
NPV	Net Present Value
NQ	47.6mm Sized Core
NTS	National Topographic System
NW	Northwest
NYF	Niobium, Yttrium, and Fluorine
OEM	Original Equipment Manufacturer
OPEX	Operating Expenditures
OREAS	Ore Research and Exploration Assay Standards
P. Eng	Professional Engineer
P. Geo	Professional Geoscientist
P80	Product Particle Size at 80% Passing
PHEV	Plug-in Hybrid Electric Vehicles
PMC	PMC Laboratory Ltd.
P-T	Pressure-Temperature
PTY	Proprietary
QAQC	Quality Assurance and Quality Control
QP	Qualified Person
ROM	Run-of-mine

RQD	Rock Quality Designation
RWI	Bond Rod Mill Work Index
SD	Standard Deviation
SEC	United States Securities and Exchange Commission
SG	Specific Gravity
SGS	SGS Canada Inc.
SLR	Snow Lake Resources Ltd.
SQ-XRD	SQ X-ray Diffraction
SRC	SRC Geochemical Laboratories
TB	Thompson Brothers
TBL	Thompson Brothers Lithium
TPA100	Tetradecanoyl phorbol acetate
TRS	Initial Assessment Technical Report Summary
UAV	Unmanned Aerial Vehicle
US	United States
UTM	Universal Transverse Mercator
VMS	Volcanogenic Massive Sulfide
VP	Vice President
WRA	Whole Rock Analysis
XRD	X-Ray Diffraction
XRT	X-Ray Transmission

List of Elements

Ag	Silver
As	Arsenic
B	Boron
Be	Beryllium
Bi	Bismuth
Cd	Cadmium
Ce	Cerium
Cs	Cesium
F	Fluorine
Fe	Iron
Fe_2O_3	Ferric Oxide
H_2O	Water (hydrogen dioxide)
$K(Li_{1.5}Al_{1.5})(AlSi_3O_{10})(F,OH)_2$	Lepidolite
$KLi_2Al(Si_4O_{10})(F,OH)_2$	Lepidolite
Li	Lithium
Li_2O	Lithium Oxide
$LiAl(Si_4O_{10})$	Petalite
$LiAlPO_4(F,OH)$	Amblygonite-montebrasite
$LiAlSi_2O_6$	Spodumene
Na_2CO_3	Sodium Carbonate
Na_2O_2	Sodium Peroxide
NaOH	Sodium Hydroxide
Nb	Niobium
P	Phosphorus
Rb	Rubidium
Sn	Tin
Ta	Tantalum
Ti	Titanium
W	Tungsten

List of Units

'	Foot
"	Inch
$/t milled	Dollar per tonne milled
$/t mined open pit	Dollar per tonne mined open pit
$/t mined underground	Dollar per tonne mined underground
$/t ore of DSO	Dollar per tonne of ore of DSO
$/t ore of product	Dollar per tonne of ore of product
%	Percent
°	Degree
°C	Degrees Celsius
µm	Micrometre (microns)
CAD$	Canadian dollars
cm	Centimeters
g	Grams
g/cm^3	Grams per cubic gram
g/t	Grams per tonne
Ga	Gallium
ha	Hectares
kg	kilograms
km	Kilometers
km/hr	Kilometers per Hour
kV	Kilovolts
kW	Kilowatt
kWh/t	Kilowatt-hour per tonne
m	Metres
m/month	Metres per month
m^3/s	Cubic metre per second
mm	Millimeters
Mt	Megatonne
MVA	Megavolt ampere

MW	Megawatts
pH	Potential Hydrogen
t	Tonne
t/m^3	Tonnes per cubic metre
tpd	Tonnes per day
tph	Tonnes per hour
US$	US dollars
w/w	Weight per weight

1. Executive Summary

1.1 Introduction

ABH Engineering Inc. (ABH) was consulted by Snow Lake resources (SLR) for the preparation of the following Initial Assessment Technical Report Summary (TRS) on the Thompson Brothers Lithium (TBL) and the Grass River Lithium (GRL) deposits, collectively known as the Snow Lake Lithium Project, located in Manitoba, Canada. The purpose of this Technical Summary Report is to conduct an initial assessment and prepare a document compliant with the United States Securities and Exchange Commission (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 and item 601 (b)(96) of Regulation S-K (SK-1300).

The scope of the Initial Assessment includes the study of the mineral resources, and the economic and technical viability of mineral extraction for the two deposits. The Thompson Brothers Lithium and Grass River Lithium deposits are in the mining friendly region of Snow Lake, Manitoba.

The Snow Lake Lithium Project is located 20km east of Snow Lake, Manitoba. Snow Lake is located approximately 684 km north of Winnipeg. The town centre of Flin Flon is located 200km away and is connected to Snow Lake though a well-paved highway. Flin Flon can be accessed via air from Winnipeg, allowing for an established route to the property.

1.2 Property Description and Ownership

The Thompson Brothers (TB) and Grass River (GR) properties are in North-Central Manitoba at the northeast end of Wekusko Lake, with approximate UTM coordinates of 455,000 E and 6,080,000 N, NAD83 Zone 14, lying within National Topographic System (NTS) Map Sheet 63JSE13.

The Snow Lake Lithium Project property area originally comprised 38 adjoining mineral dispositions covering 5,596 ha. The company had acquired additional land holdings of 13,603 ha of Crown land. Through additional staking of mineral dispositions on Crown Land in 2022, the SLR has increased the property area to the present 24, 515 ha.

1.3 Geology and Mineralization

Pegmatites are formed through extremely slow cooling of igneous bodies, forming during the very last stage of crystallization of magma, and the melt becoming enriched in volatiles and rare elements. (Omanayin, Y.A., et al., 2022) The mineral composition of pegmatites usually comprises of crystals of quartz, feldspars and micas; pegmatites range in composition from mafic, granitic to syenitic.

Resource-grade mineralization on the Snow Lake Lithium Project is hosted by the Thompson Brothers dike (TBL) on the east side of Crowduck Bay (northeast end of Wekusko Lake) and the Grass River set of four dikes (GR) on the west side of Crowduck Bay; several smaller and/or less intensively mineralized dikes have also been identified in the TBL and the GR.

The Thompson Brothers dike has been modelled as an intrusion into a pebble meta-conglomerate / greywacke group of host sediments. The dike has been interpreted as sub vertical, dipping between –81.5° and –87.5° towards 130° azimuth. The trend of the ore body has slight variations and is rolling to the East and West. The dip of the ore body is also rolling slightly. The dike carries both mineralised and unmineralized pegmatite as identified by the presence of spodumene as the lithium bearing mineral. Only the lithium bearing pegmatite has been modelled in this instance which extends for a total length of 1,012 m ranging in true thickness from a maximum of 18 m to a minimum of 1.8 m; however, mineralisation has not been closed off either at depth or to the north or south of the drilled area.

The dike is generally orientated between 20° and 40° offset from the apparent foliation in the surrounding country rock and there is outcropping evidence of additional mineralised and unmineralized pegmatite in the area that is yet to be defined in terms of size and or orientation.

The dikes on the GR property intrude into older andesitic and monzonitic rocks. The average trend of the dikes is 125° and average dip of 60°. The total depth of the mineralized dikes is 574 m, a total length of 500m and a total width of 200m. As in the TB dikes, the pegmatite bodies have mineralized and unmineralized sections which were distinguished by the presence or absence of spodumene.

1.4 Exploration

In the fall of 2016, a modest program of prospecting, outcrop mapping, surface rock sampling, and soil sampling was completed. The primary purpose of the exploration program was to validate and expand on the previous work campaign.

In the winter of 2017, six drill holes totalling 1,007 m targeting the TB-1 pegmatite were cored (TBL-1 to 6). During the winter of 2018, 19 additional drill holes totalling 3,798 m were cored on the Property (TBL-15 to 24). Drill sections and plans were prepared, and interpretations of the geology and mineralization completed by SLR. A project database had been created and a model for the deposit had been developed. In March 2018, Manitoba Minerals/Nova Minerals staked an additional 18 mineral claims (3,319 ha) contiguous with the original TBL Property (20 claims, 2,277 ha).

SLR started a drill program in 2022 which consisted of drilling an additional 30 holes on the Thompson Brothers property. The company's focus then shifted to the Grass River pegmatites on the property where 47 holes were drilled to date.

The company had also executed a magnetic survey utilizing a flying drone that can map the fabrics which control the mineralization as well as contrasts in magnetic susceptibility with neighboring lithologies. The EarthEx Drone Mag had previously demonstrated in 2019 that the magnetic susceptibility of the TB Pegmatite was notably lower than the surrounding country rocks. The

1.5 Metallurgical Testing

Metallurgical test work programs were conducted on samples from Grass River and Thompson Brothers deposits. Testing for comminution, flotation, dense media were conducted by SGS Lakefield for the Grass River samples and by PMC Laboratory Ltd. for the Thompson Brothers samples. Sorting tests were conducted by Steinert and Tomra on Grass River and Thompson Brothers material.

Sorting tests were effective in removing Fe_2O_3 impurities from the product stream, reducing the content from 2.23% to 0.63% while maintaining high lithium recoveries of 97% and rejecting 20% of the mass as waste.

The Bond Ball Mill Work Index of the ore was determined at 16.4 kWh/t.

Magnetic separation proved to be effective in removing the iron impurities, achieving less than 1.2% Fe_2O_3 after DMS for ore from both deposits. Lithium loss due to magentic separation was less than 0.4% for Grass River ore.

The Dense Media Separation tests for the Grass River deposit shows that the concentrate grade is 6.45% Li_2O, and 5.27% Li_2O for the Thompson Brothers deposit. The middlings and fines were collected and sent for further processing and resulting in spodumene concentrate collected at the spodumene flotation process at 6.17% Li_2O for the Grass River deposit and 6.48% Li_2O for the Thompson Brothers deposit.

1.6 Mineral Resource Estimate

The updated Mineral Resource estimate for the Snow Lake Lithium Project for the Measured category was calculated to be 252,590 tonnes grading 0.96% Li_2O for TB and 499,273 tonnes grading 1.21% Li_2O for GR. The Indicated category was calculated to be 5,564,268 tonnes grading 1.12% Li_2O for TB and 1,045,413 tonnes grading 0.98% Li_2O for GR. The Measured and Indicated values for tonnage for TB are 5,816,858 grading 1.11% Li_2O, and 1,544,686 grading 1.06% Li_2O for GR. The Inferred Resource for TB was calculated as 567,615 tonnes grading 1.06% Li_2O and for GR it was 490,463 tonnes grading 0.83%.

1.7 Mining Methods

The project consists of two deposits: Grass River and Thompson Brothers. The Grass River deposit will be mined starting with a conventional truck-and shovel open pit operation that will transition into an underground longhole longitudinal bottom-up stoping on retreat using unconsolidated backfill. The backfill material will consist of dewatered and filtered tailings mixed with material that was rejected by the sorters.

The open pit operation will be done by a mining contractor with the pit producing for only one year before transitioning into underground. Mining will begin with four starter pits with three of the pits merging as mining progresses. The open pit operation will produce 624,000 tonnes of ore at an average grade of 0.91% Li_2O. Material that meets the 1% Li_2O threshold will be direct shipped, with the remaining ore that is above the mill cutoff grade being stockpiled. Table 1-1 summarizes the annual mining production over the life of mine.

Table 1-1: Annual Mining Production

Description	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Ore Mined	'000 tonnes		624	932	1,353	1,362	1,327	1,283	1,237	1,249	411	**9,776**
Waste Mined	'000 tonnes	289	2,997	260	22	23	22	21	21	13	-	**3,380**
Total Mined	'000 tonnes	289	3,621	1,192	1,375	1,384	1,349	1,304	1,258	1,262	411	**13,156**
Lithium Mined	'000 tonnes		5.66	7.39	10.43	10.32	11.05	10.44	12.56	11.66	2.54	**82.05**
Average Mined Diluted Grade	% Li_2O		0.91	0.79	0.77	0.76	0.83	0.81	1.02	0.93	0.62	**0.84**

After the crown pillars at Grass River are recovered, the pits will be used as additional storage for excess tailings and waste that does not fit into underground voids.

Thompson Brothers will be mined using a similar method as Grass River: longhole longitudinal bottom-up stoping on retreat using unconsolidated backfill. The backfill material will consist of dewatered and filtered tailings mixed with material that was rejected by the sorters. No surface mining will be done at Thompson Brothers.

Underground mining of both deposits will utilize the same equipment fleet, with the fleet owned and operated by Snow Lake. The fleet will be mostly electric with the exception of some diesel support equipment.

Between the two deposits, underground production targets 912,500 tonnes per year (tpy) of sorted ore. This results in an average underground production of 1,249,000 tpy of ore. Total production from both underground deposits is 9.78 million tonnes of ore over the life of mine at an average grade of 0.84% Li_2O.

The total life of mine including open pit and underground operations is 9 years.

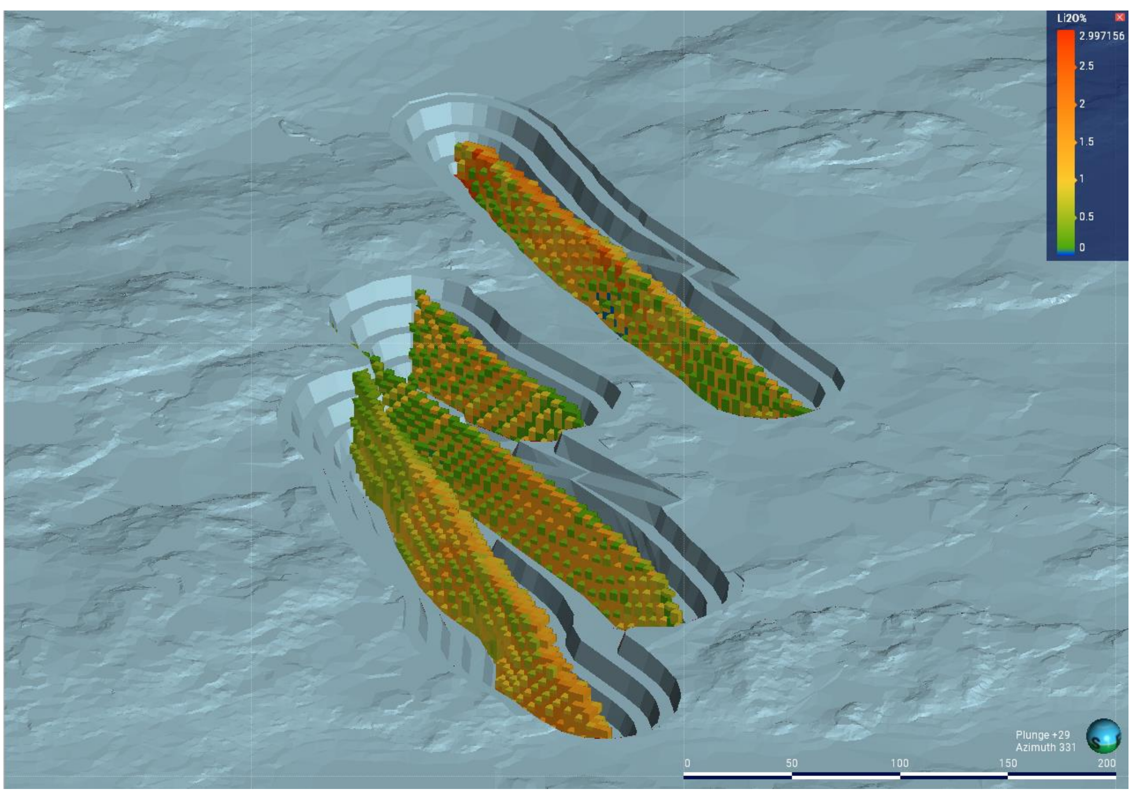


Figure 1-1: Open pit of Grass River

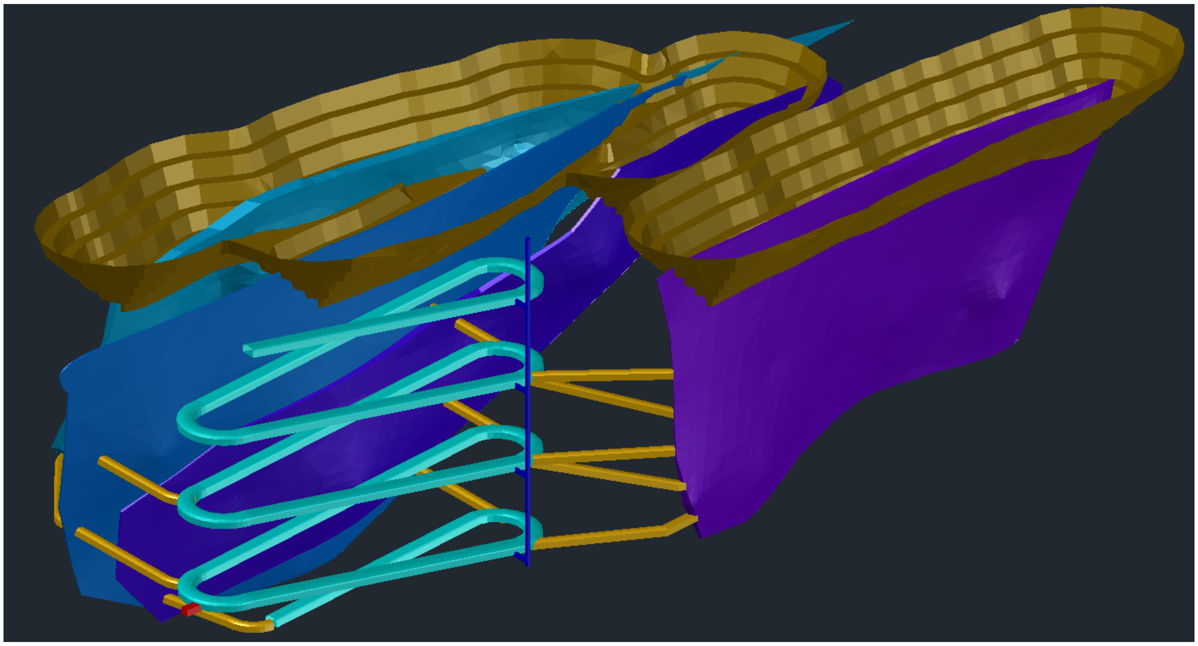


Figure 1-2: Underground workings of Grass River

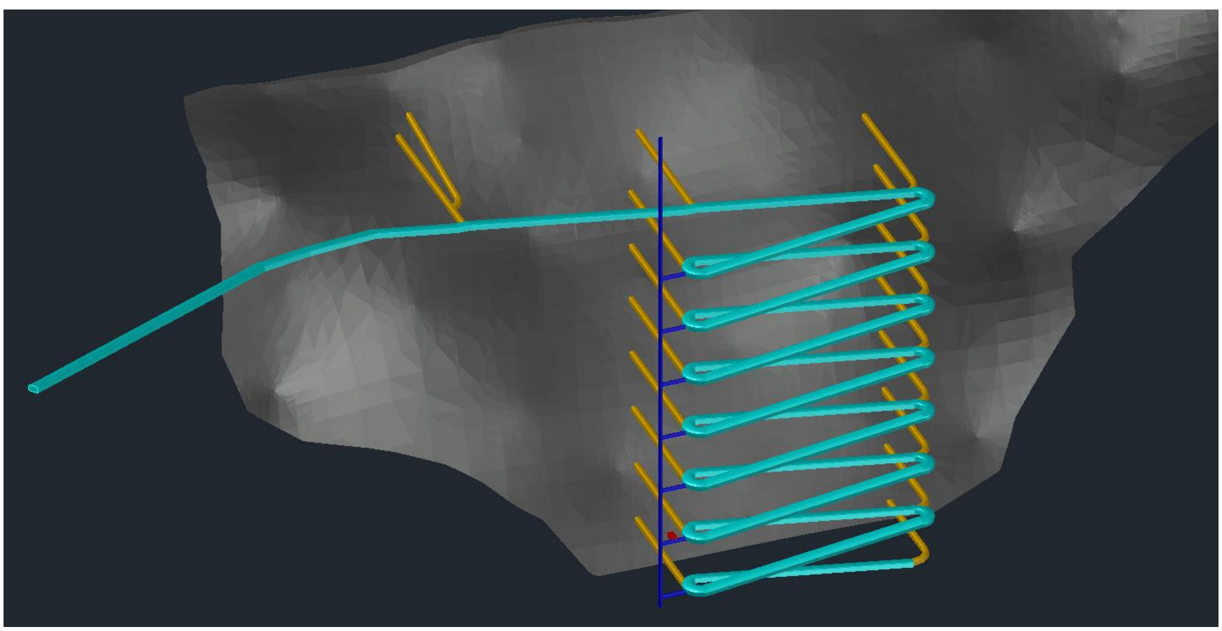


Figure 1-3: Underground workings of Thompson Brothers

1.8 Process and Recovery Methods

The spodumene processing circuit for Snow Lake Lithium follows a well-proven extraction circuit. that is standard with in the industry. The ROM material will be first crushed using a jaw crusher at approximately 3,000 tonnes per day (tpd) pre-concentrated using X-ray transmission (XRT) ore-sorters to reduce the amount of low-grade material in the mill feed material. The accepted material from XRT sorters will be sent to the processing plant at approximately 2,500 tpd, and the rejects will be sent to a waste rock pile.

When the sorter accepted material enters the processing plant, the material will be cone crushed to particle size – 9.5 mm. The material of size +0.85 mm will be sent to 2 stages of Dense Media Separation (DMS), at SG 2.7 and SG 2.9 respectively. The dense material collected from the second stage of DMS will reach approximately 6% Li_2O and is sent to the final product disk filter.

The remainder of the material will be sent to the magnetic separator to remove the iron impurities in the material, and to the deslime cyclones to remove the fines. This will be followed by mica flotation, where the mica is removed and send to thickener. Finally, the remaining slurry is sent to spodumene flotation for extraction of final product.

The spodumene recovery at the main stages is as shown below in Table 1-2:

Table 1-2: Li_2O Recovery of the Thompson Brothers and Grass River Deposit

	Thompson Brothers	Grass River
Sorter Recovery	83%	83%
DMS Product	58%	67%
Mill Recovery	77%	91%
Overall Recovery	64%	75%
Combined		
Total Overall Mill	80%	
Total Overall	66%	

1.9 Infrastructure

Figure 1-4 shows the proposed infrastructure at the Thompson Brothers Lithium site.

Infrastructure will include:

- 7 km new access road that allows construction, capital equipment, and operations supplies to be delivered.
- Administration and mine office
- Combination mine shop and warehouse
- Processing plant
- Water treatment facility
- Retention pond for storage of process water
- Power transmission line and substation
- Ventilation shaft structures at each deposit
- Fuel and lubricant storage
- Underground Portal at each deposit

Tailings pond will not be required, with filtered dried tailings being used as backfill for underground workings and to partially fill the open pits at Grass River.

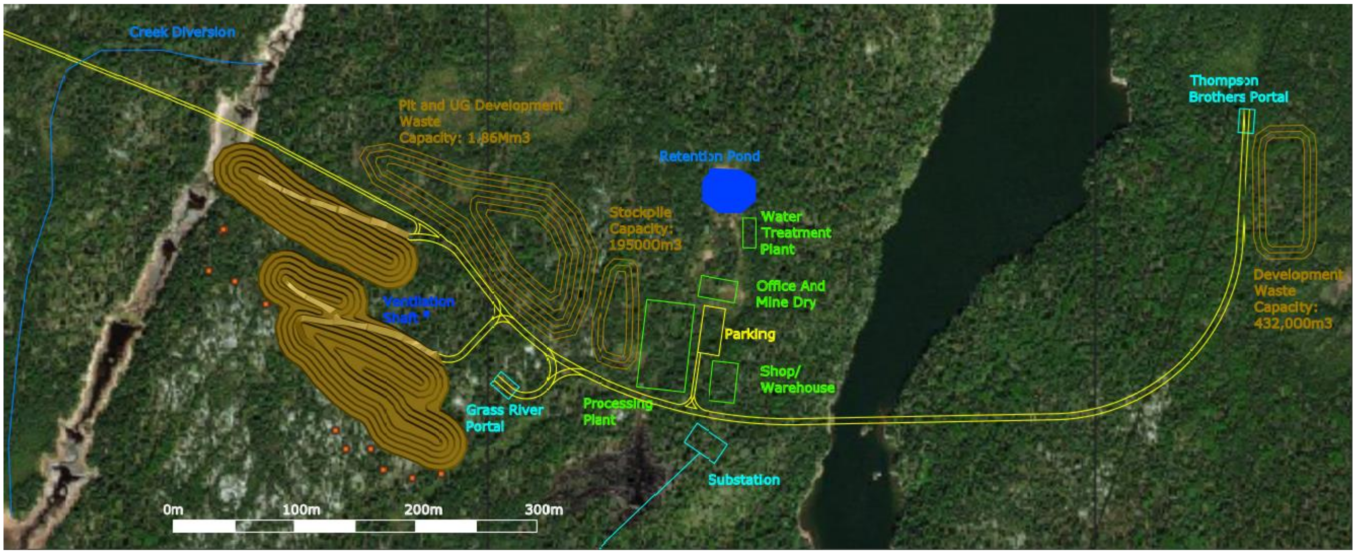


Figure 1-4: Layout of infrastructure on site

1.10 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups

Snow Lake Resources initiated environmental and social baseline programs in May 2022 and these programs continue in 2023. Baseline programs are aimed at collecting two years of baseline data to support the environmental applications needed to authorise the Project. Baseline study areas were informed by the Mineral Claims Area (MCA) held by Snow Lake Resources. The baseline programs will be reviewed and revised by considering the site layout and Project description in this report.

The Project is not anticipated to require environmental review under the Federal *Impact Assessment Act* (IAA), although the Minister of Environment and Climate Change of Canada may designate a physical activity that is not prescribed by the Physical Activities Regulations if, in their opinion, the Project may cause adverse effects within federal jurisdiction, or public concerns warrant the designation. The Project will require an Environment Act Licence under the Manitoba *Environment Act* and the application will require supporting environmental and social studies. The Project activities will include the diversion of a watercourse which will require an authorisation under the Federal *Fisheries Act* and potential compensation or an offset plan. This authorisation process can be lengthy and engineering and environmental studies will be required to support the application. Other authorisations will be required for the Project as described in this report.

The town of Snow Lake is the nearest community to the MCA. The Project lies within Treaty 5 land with several Indigenous communities' signatories. Mathias Colomb Cree Nation has asserted that the Project lies within the Nation's Traditional Territory. Engagement activities were initiated mid 2022 with Indigenous and local communities. Engagement activities continue in 2023 with the additional objective of understanding any community traditional land uses.

An approved Mine Closure Plan and financial assurance will be required prior to commencement of the Project.

1.11 Capital and Operating Cost Estimates

The capital and operating costs in this report are estimated by ABH Engineering Inc. and considered Class 4 estimates per the American Association of Cost Engineers (AACE) standards with an accuracy of -30 to +50% and contingencies added not exceeding 15% of the total cost. The estimations for capital and operating costs are compiled using vendor quotes, benchmarking from similar projects, and Qualified Persons estimates.

The initial capital cost required in year 0 is estimated at $50 million, whereas the remaining capital in subsequent years is estimated at $96 million. The bulk of the remaining capital is spent in year 1 to build the mill, powerline and substation, and other infrastructure costs. A closure cost of $10 million at the end of production. The total projected CAPEX is $146 million.

The most significant unit operating costs are underground mining estimated at $33.5 per tonne mined, and processing costs at $15.8 per tonne milled. Although the unit cost for DSO transportation to China is at $99.97 per tonne shipped, it represents less than 5% of the total LOM OPEX as it only applies to a small amount of ore shipped in year 1. The total operating cost over the LOM is estimated at $613 million. Mining cost makes up around 50% of the total operating cost, followed by underground development at 20%, and processing costs at 17% of the total operating cost.

1.12 Economic Analysis

The economic analysis in the initial assessment is preliminary and shows results including inferred mineral resources that are considered too speculative geologically to have modifying factors applied to them to be categorized as mineral reserves, and there is no certainty that this economic assessment will be realized. Economic results in this report will be shown based on all mineral resources, then reported based on measured and indicated resources only.

Cash flow calculations are based on a spodumene price estimation of $3500 per tonne, and $504 for the DSO product, along with NPV discount rate of 7% and private royalty of 1%. Provincial and federal taxes are assumed and presented in Section 19 of the report. Pre-tax and post-tax key economic results for all mineral resources are presented in Table 1-3 below.

Table 1-3: Key Economic Results for All Mineral Resources.

Economic Results – All Mineral Resources		
	Pre-Tax	Post-Tax
Net Present Value	$1.76 Billion	$1.19 Billion
Internal Rate of Return	208 %	170 %
Payback Period	14 Months	14 Months

The key economic results based on measured and indicated resources is summarized in Table 1-4 below.

Table 1-4: Key Economic Results for Measured and Indicated Resources.

Economic Results – Measured and Indicated Mineral Resources		
	Pre-Tax	**Post-Tax**
Net Present Value	$1.52 Billion	$1.03 Billion
Internal Rate of Return	175 %	143 %
Payback Period	15 Months	15 Months

A Sensitivity analysis is conducted to study the variation of pre-tax NPV when changing major economic inputs. This includes varying the spodumene selling price, project CAPEX and OPEX, mill recovery, and NPV discount rate. The analysis shows that the pre-tax NPV is most sensitive to changes of spodumene price and most resistant to CAPEX fluctuations. An increase of 30% in spodumene will increase the NPV to $2.5 billion. Even in case of a 30% decrease in spodumene price, the pre-tax NPV is estimated to remain above $1 billion. The sensitivity analysis is also conducted based on measured and indicated resources and the detailed results are presented in 19.5.

2. Introduction

The province of Manitoba is rich in valuable mineral resources such as gold, copper, lithium and more. With the increasing demand for lithium supply in the medical industry, aerospace technologies and most importantly the large demand for electric vehicles, the production of lithium ore becomes crucial in the mining industry.

Snow Lake Resources Ltd., d/b/a/ Snow Lake Lithium Ltd. (NASDAQ: LITM) (‘Snow Lake Lithium” or the “Company”) 100% owns the Thompson Brother Lithium Property (TBL Property) near the town of Snow Lake, Manitoba. The Thompson Brothers Lithium Property contains the bisection of two pegmatite dikes that are enriched in lithium.

Snow Lake Lithium commissioned ABH Engineering Inc. (ABH) to complete an Initial Assessment (IA) of the Thompson Brothers Deposit and the Grass River Deposit with in the TBL Property. The following Technical Report Summary (TRS) is compliant with the Securities and Exchange Commission (SEC) Regulation S-K 1300.

2.1 Purpose of the Technical Report Summary

The purpose of the Technical Report Summary is to provide a rounded preliminary level study of the Thompson Brothers and Grass River deposits that considers the geological setting, mineral resources, mining methods, metallurgical testing program, processing methods and economics. Snow Lake Lithium may decide to file the TRS with SEC to disclose the available information of the mineral property to the public.

2.2 Sources of Information and Data

This Technical Report Summary was prepared by ABH, and communication with Snow Lake Resources was conducted through the following list of personnel:

- Christopher Gerteisen, Nova Minerals
- Louie Simens, Nova Minerals
- Peretz Schapiro, Snow Lake Lithium

Any additional documentation and sources of information can be found in Section 24. References and Section 25. Reliance on Information Provided by the Registrant.

2.3 Site Inspection

Qualified Person from ABH completed the site inspection of the Snow Lake Lithium Property from May 23-25, 2023, to review the cores, logs and collected samples for the purpose Quality Assurance and Quality Control.

3. Property Description and Location

The Thompson Brothers (TB) and Grass River (GR) properties are located in North-Central Manitoba at the Northeast end of Wekusko Lake. The UTM coordinates are 455,000 E and 6,080,000 N, NAD83 Zone 14 and within National Topographic System (NTS) Map Sheet 63JSE13. The properties are situated approximately 20 km east of the town of Snow Lake. The site of the abandoned Herb Lake Town, which was once a thriving mining town with a population of over 800 people is also nearby. The town of Snow Lake is a mining-friendly jurisdiction that has seen past producing mines of various commodities and is the location of the currently operating Hudbay Minerals' New Britannia Mill, processing ores hauled from the Lalor Mine, some 10 km to the west.

3.1 Project Ownership

The Thompson Brothers Lithium Property originally was comprised of 38 adjoining mineral claims covering 5,596 ha. The company had acquired additional land holdings of 13,603 ha of Crown land. On January 6, 2023, the company announced that they had staked 9 more mineral dispositions which cover an area of 1,729 ha near Dion Creek, Lost Frog Lake, and Grass River East shown below. This brings SLR's total land holdings to 24,114 ha.

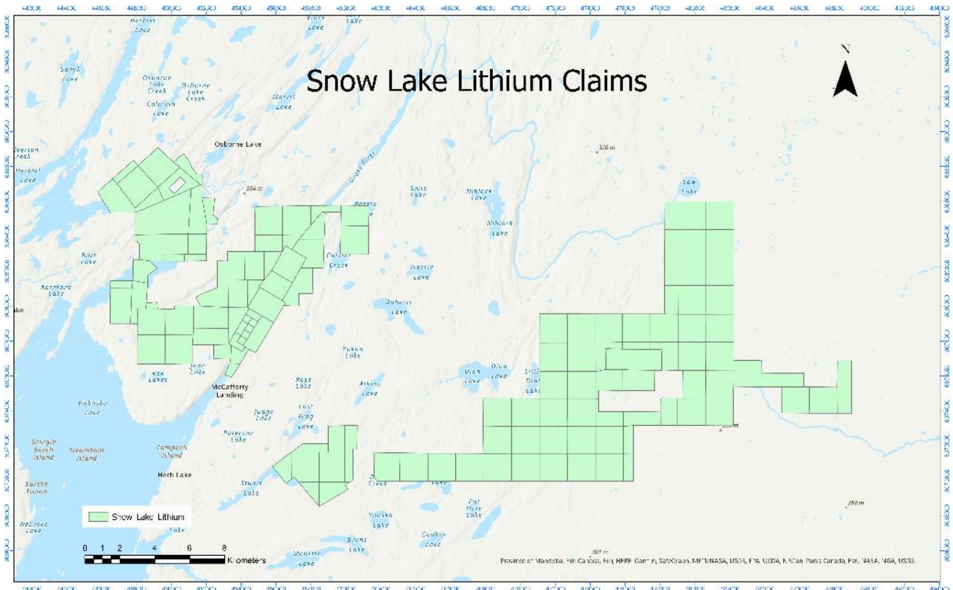


Figure 3-1:Showing the location of staked claims.

Legal Disclaimer: The claims that are shown on this map are for visual purposes only. The author has not been able to verify that the claims that are shown match the governments archives and claims map. The author does not take any responsibility for any erroneous claims information.

3.2 Surface and Mineral Rights

In order for a person to have access to a parcel of land and stake a claim the operator must comply with the Surface Rights Act (1987) s. 16(1) that states “Unless expressly authorized by the Surface Rights Board, no operator has the right to enter upon, use, occupy or take the surface of any land, until the operator has obtained a lease of the rights specified therein granted by the owner and occupant, if any”.

Staking claims in Manitoba requires any person who is over the age of 18 to get a license. These licenses cost a small fee and are valid for a lifetime. A prospector must then comply with Manitoba’s rules with regards to claim boundaries that surround the property. The claim must be recorded within 30 days and filed with the Manitoba Economic Development, Investment and Trade Office. A claim sketch is also required.

To obtain a mineral lease, an application should be made in writing to the minister along with an application fee and rent for the first year.

There are minimum expenditures of work that are required to keep a mineral exploration lease and this work must be recorded. These expenditures can be found in Appendix A and B of the Mines and Minerals Act (1992), Mineral Disposition and Mineral Lease Regulation (1992). Under section 40 of Mineral Disposition and Mineral Lease Regulation (1992) work must be reported no longer than 60 days after each of the 5th, 10th, 15th, and 21st anniversaries of the issuance of the mineral's lease.

3.3 Permits

Nova Minerals had given an update on the TB project through a press release dated February 7, 2017. The company had received drill permitting from the relevant local and provincial departments to undertake a drilling program during the winter months.

The directors notified the public on January 22, 2018, that they had a significant exploration program planned for the winter of 2018, and that all drill and work permits have been received from the Office of Manitoba Sustainable Development.

On December 13, 2021, SLR announced that they had received the permit that was required to initiate its 2022 winter drilling program.

SLR had engaged with SLR Consulting Canada to conduct environmental baseline studies as the first step in the environmental permitting process, which is required to progress an exploration project to the commercial mining and production stage. The environmental study was estimated to take approximately 2 years for completion.

3.4 Social License

The Snow Lake lithium project is near the town of Snow Lake which has been very open to mining activity in the region. Historic Herb Town was the site of a mining boom that drew prospectors to the region after the discovery of free gold in a quartz vein on the east shore of Wekusko(Herb) Lake. (Taken from https://www.mhs.mb.ca/docs/mb_history/68/herblake.shtml) There seems to be very little negative community and social impact.

The Wekusko Lake region lies near the boundary of land covered by Treaty Area 5 as shown in Figure 4.3, however, there are no First Nation Communities in the surrounding area as shown in Figure.

The company intends to have the project running completely on electricity for the production stage of the operation. Mining, sorting, and concentrating activities are going to be free of diesel or gasoline to ensure that the project has a neutral carbon footprint.

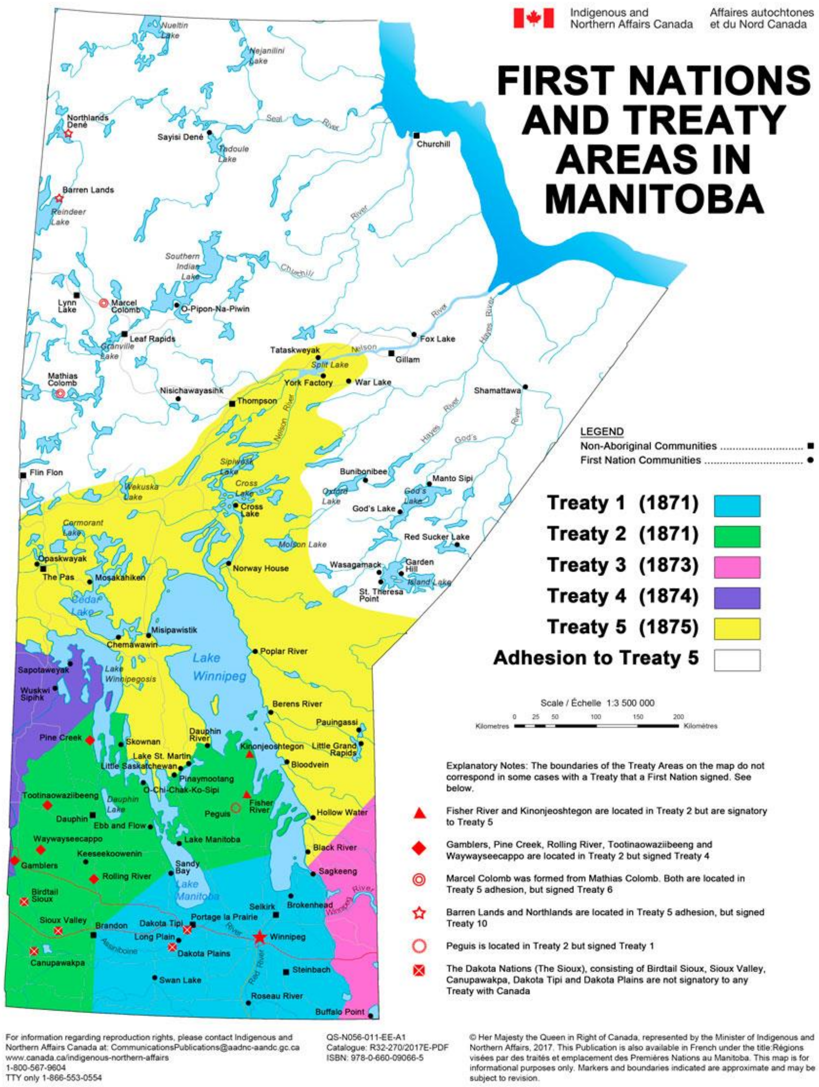


Figure 3-2: Map showing Treaty areas of Manitoba, where the Wekusko Lake region lies on the border of the land within the Treaty 5 territory. (Government of Canada, 2023)

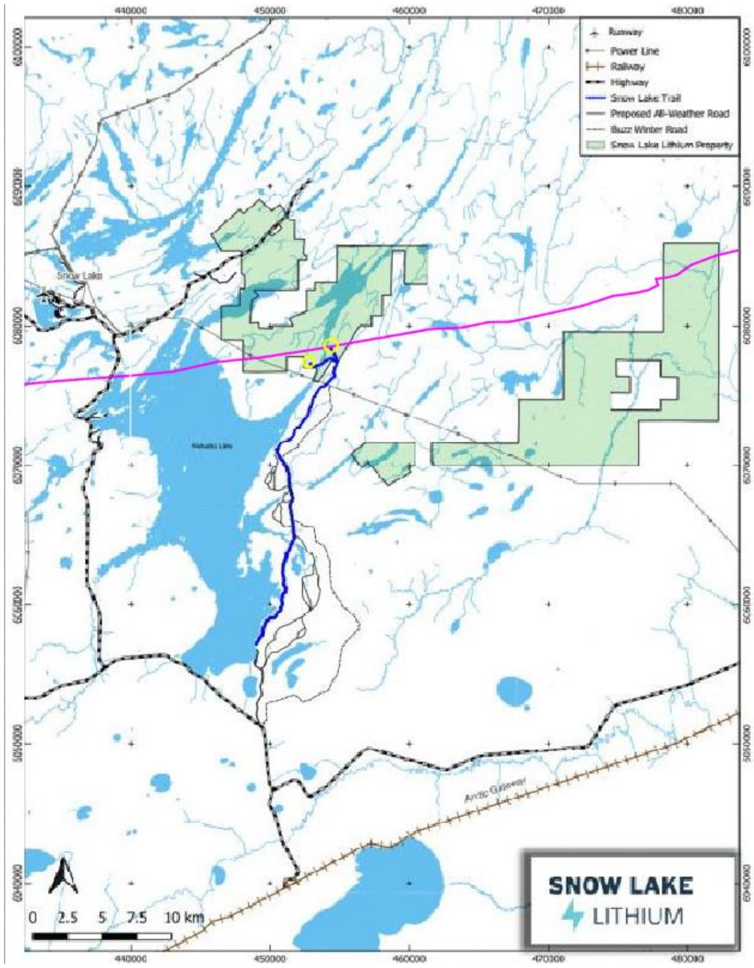


Figure 3-3: Close up view of land covered by Treaty 5. The magenta line represents the boundary of Treaty 5 with the southern portion being a part of that land. Yellow circles show TB and GR projects. GR dikes are on land covered by Treaty 5, and the TB dike strad

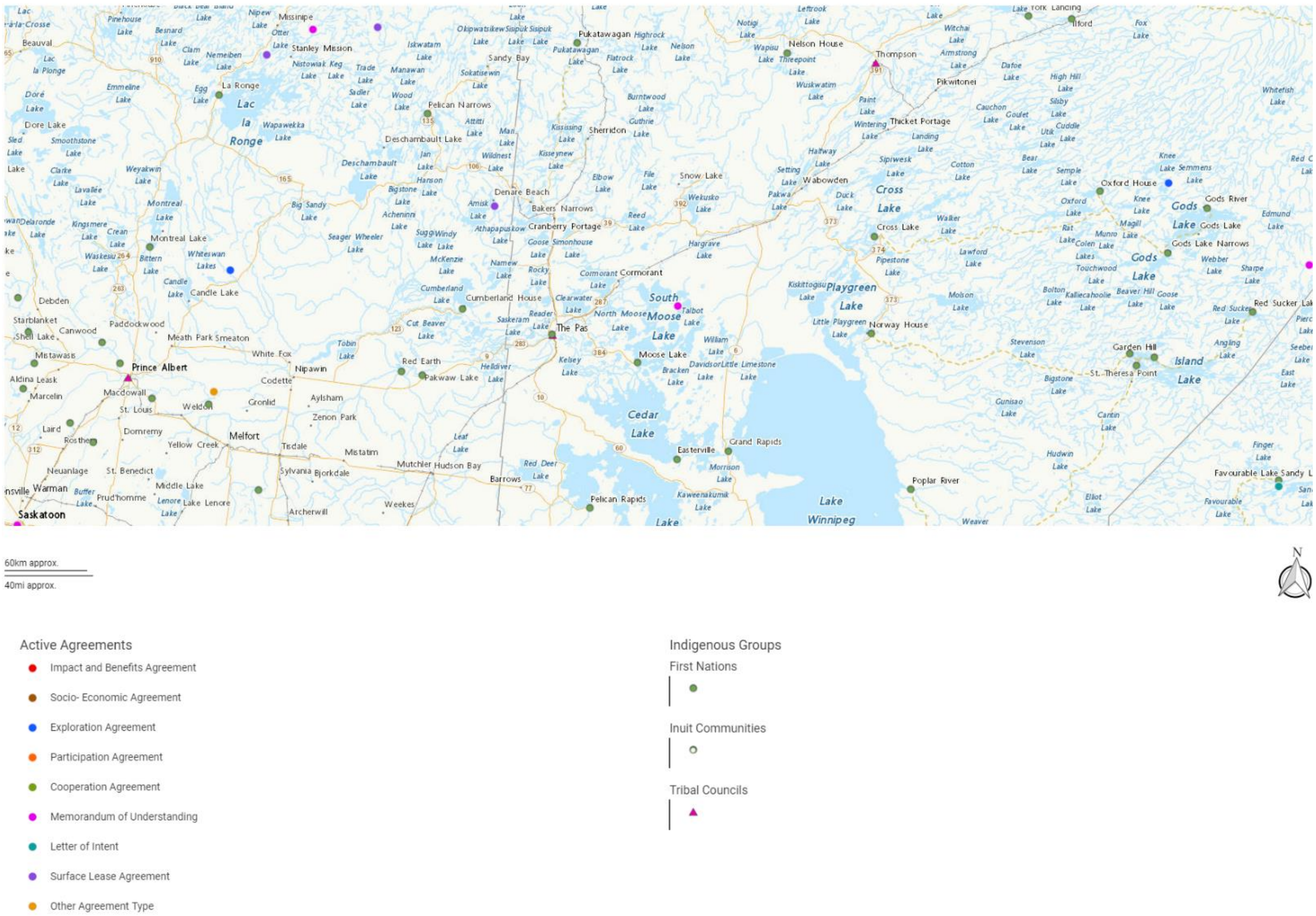


Figure 3-4: Indigenous Groups of Manitoba and Indigenous Mining Agreements.

3.5 Environmental Considerations

Snow Lake Lithium has contracted with SLR Consulting Canada to conduct environmental baseline studies.

3.6 Government Grants

SLR had received a government grant in the amount of $62,000 CAD from the Manitoba Chamber of Commerce, Manitoba Mineral Development Fund. The grant was for the use of a UAV drone magnetic survey which will be employed by EarthEx Geophysical Solutions Inc. The drone was to conduct magnetic mapping of structural fabrics that control crystallization. The results would be used for future drill targeting.

On April 12, 2022, the company announced that they had received a second grant from the Manitoba Chamber of Commerce from the Manitoba Mineral Development Fund in the amount of $157,500 CAD to support its ongoing winter drilling campaign. The company planned on using the grant to assist with costs that relate to the next phase of helicopter supported drilling during the spring and summer months.

4. Accessibility, Climate, Local Resources, Infrastructure and Physiography

4.1 Accessibility

The Thompson Brothers Lithium deposit is located 20km east of Snow Lake, Manitoba. Snow Lake is located approximately 684 km north of Winnipeg, a 7 hr (700 km) drive on well maintained, paved roadways. The property can be accessed year-round via helicopter. The town of Snow Lake runs a craft charter service that hosts small planes and helicopters. The town centre of Flin Flon is located 200km away and is connected to Snow Lake though a well-paved highway. Flin Flon can be accessed via air from Winnipeg, allowing for an established route to the property from anywhere.

During the summer, the property is accessible through boat or barge across the adjacent Wekusko Lake. During the winter, ice and bush roads provide direct access to the property's drill sites. Additionally, the Hudson Bay railway which runs latitudinally through Manitoba is located 35km south of the property, a municipal airstrip can be found 10km north, and the nearest highway is within 11km of the site.

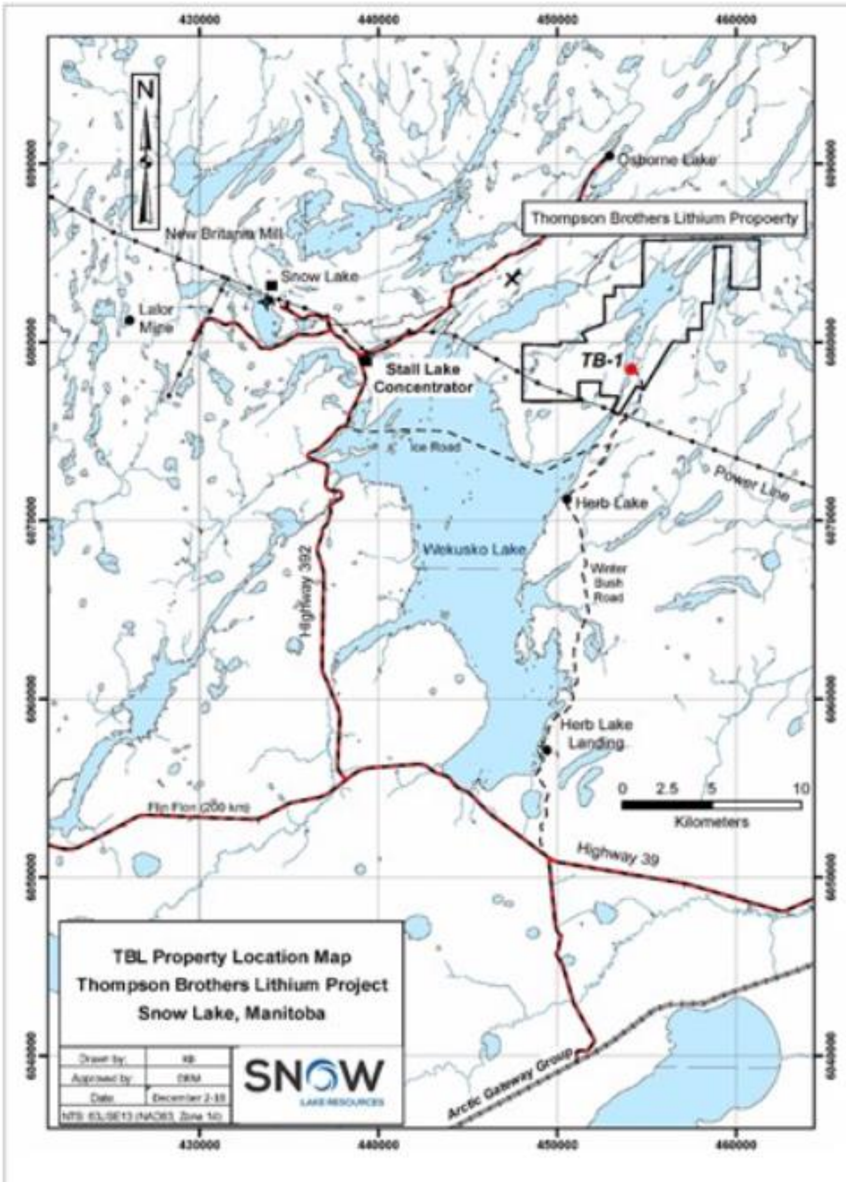


Figure 4-1: Thompson Brothers Lithium Project located in the Snow Lake Region of Manitoba, Canada

4.2 Climate

The Snow Lake region is marked by short, cool summers and long, cold winters (Table 3). The region has a sub-humid high boreal climate.

The mean summer temperature is 12.5°C and the mean winter temperature is - 18.5° C. The temperatures are highest on average in July, at around 17.0 °C. January is the coldest month, averaging -23.3° C. The mean annual temperature is approximately -2.5° C. The area is generally clear of snow cover between the beginning of June and the end of September.

The mean annual precipitation is about 450 mm, 35 % as snow. The least amount of precipitation occurs in February, averaging 16 mm. Rainfall is experienced throughout the year, being most abundant in June and July. Summer months face around 70mm of precipitation, but peak to over 100mm on occasion. Snowfall occurs from October to May and is usually over 20cm each month. Average monthly winds for the area range from 10 km/hr to 13 km/hr, with 40 % of the winds originating from the NW, NE or N. Exploration activities can be carried out all year around.

Local vegetation consists of closed stands of black spruce and jack pine, with lesser aspen, white birch, white spruce and balsam fir. Permafrost may occur locally in organic deposits. Wildlife includes moose, black bear, lynx, wolf, barren-ground caribou, beaver, muskrat, snowshoe hare and red-backed vole. Bird species include raven, common loon, spruce grouse, bald eagle, grey jay, hawk owl and waterfowl, including ducks and geese. Exploration work, specifically diamond drilling is best performed from mid-January to the end of March when ice conditions are suitable to allow diamond drilling on Tower Lake and the large swamp area to the east.

4.3 Local Resources

The Manitoba Mineral Development Fund (MMDF) has commissioned a $60,000 grant to Snow Lake Resources to conduct a UAV EarthEx Survey to identify new pegmatite bodies. This is slated to begin during Winter 2021. Additionally, Snow Lake Resources have developed a relationship with Arctic Gateway Group, owners of the Hudson Bay Railway, to allow for ore to be transported either to the Port of Churchill or potentially to Tanco Mining's spodumene flotation circuit. Tanco Mining signed a Memorandum of Understanding in 2019 with Snow Lake Resources to look into the potential of allowing them to use their processing facilities to produce saleable lithium concentrate. On April 12, 2022, the company announced that they had received a second grant from the Manitoba Chamber of Commerce for the Manitoba Mineral Development

Fund in the amount of $157,500 CAD to support its ongoing winter drilling campaign. The company planned on using the grant to assist with costs that relate to the next phase of helicopter supported drilling during the spring and summer months.

The region of Snow Lake is an established mining community with over 70 years of mining activities taking place in the area. The town of Snow Lake is the closest populated area to the property and is host to common town infrastructure such as housing, sewage systems, a police and fire department, and restaurants. Other nearby community centers include Flin Flon and Thompson, both accessible by highway from Snow Lake. The nearest airport facility is located in Flin Flon, and Winnipeg (700km away) holds the closest international airport to the site. Gogal Air provides charter flights with helicopters and small airplanes in and out of Snow Lake. The company also specializes in air support for the mining industry. They have the resources to assist in drill moves and transport personnel to the field for claim staking. There is a gravel airstrip located approximately 8.5 km northwest of the property. Thompson

Snow Lake is the closest town to the SLR property and has the potential to provide work opportunities to local residents during the life span of the mine. According to the 2016 census profile, Snow Lake had a population of 899 with 498 total private dwellings. There was a 24.3% increase in population growth from 2011-2016. The total population of working age residents (15-65 years old) in the town is 590 people, making up 66% of the total population. 170 residents are 65 and older, and 30 residents are children between the ages of 0-14 years old.

4.4 Infrastructure

Currently, there is no permanent infrastructure at the Thompson Brothers property. A nearby valley could potentially host a future tailings storage facility. Construction of ramps and underground mining infrastructure is a possibility at the property.

4.5 Physiography

The Property is positioned towards the lower end of the Precambrian Shield within the Churchill River Upland Ecoregion of the Boreal Shield Eco-zone, which is the largest eco-zone in Canada.

The property is neighbored by Wekusko Lake, part of the Wekusko Ecodistrict. It generally consists of acidic granitoid bedrock that form lightly sloped broadlands. The soil and rock composition are mainly stony, sandy morainal veneers on highlands, while lowlands primarily consist of peat-covered clayey glaciolacustrine blankets. Many of the ridges in addition to the low-lying areas tend to form towards the northeast.

Black spruce is a primary component of the area's forest, although forest fires have created gaps in the forest cover. Aspen, jack pine, birch, and grass are also commonly found growing in the region. The Wekusko Lake is the main water source for the region, although other lakes and rivers around the area additionally contribute towards their respective zones.

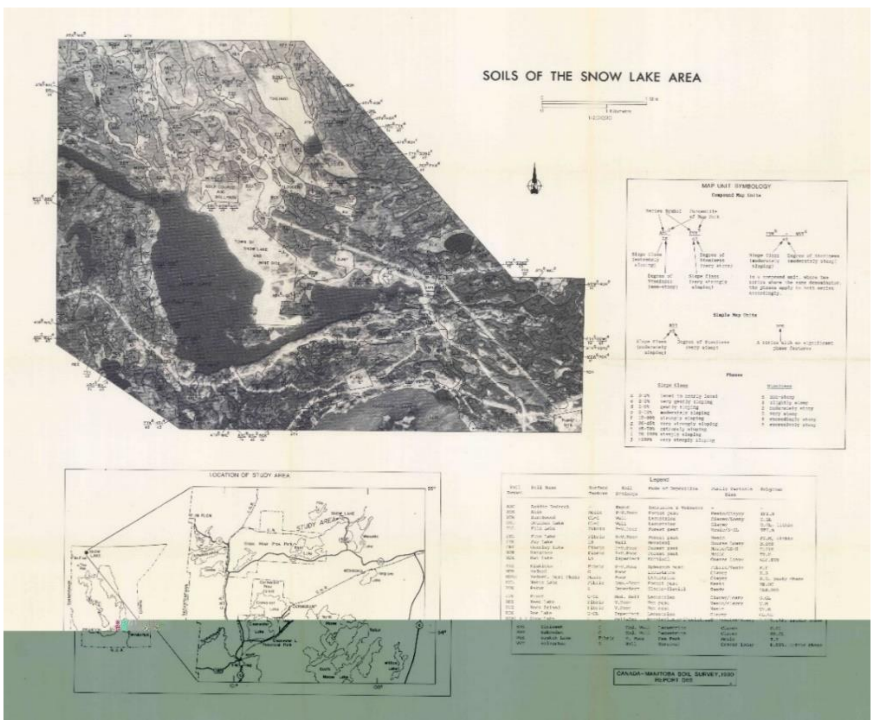


Figure 4-2: Soil profile of Snow Lake Region (Obtained from Soil of the Snow Lake Area (agr.gc.ca))

5. History

5.1 History and Mining in Snow Lake

Data taken from (https://web33.gov.mb.ca/imaqs/page/viewer/assessmentSearchForm.jsf). This history can be found from assessment reports maintained by the government of Manitoba.

Two geologists, J.B.Tyrell (1896) and W. McInnes, while working for the Geological Survey of Canada, explored Wekusko Lake and attracted other prospectors to the area. (https://northernprospector.ca/the-little-town-that-could-the-55th-parallel-boasts-19-producing-mines-over-the-last-100-years/) The first gold was discovered by M.J. Hackett and Richard Woosey, who staked the Kiski-Wekusko gold claims in 1914.

This led to a large area being staked in the region and the discovery of the first major gold-bearing vein that was named Rex M.C. (which was later became Laguna (Rex) Mine). After the sinking of two shafts, the area was home to a gold rush. Rex Mine, which was later renamed to Lagoona Gold Mines, produced 7,000 oz of gold.

The town of Snow Lake was established in 1947 to support the development and mining of the Nor-Acme Gold Mine. The region has since seen the production of 19 mines.

In 1949, Howe Sound began producing gold at the Nor-Acme Gold Mine, which poured its first bar in 1949 and closed in 1958.

The Stall Lake Mine was a volcanic massive sulphide copper-gold-zinc deposit that was mined and operated from 1964-1994. Anderson Lake Mine was also a massive sulfide copper-zinc which started mining in 1968 and closed in 1988.

Several lithium (spodumene)-bearing pegmatites have been discovered in the region. The first discovery was made by Peter Konbar while exploring his own claims. (Bannatyne, 1985) By 1932, 3 separate dikes had been outlined on surface. (Bannatyne, 1985)

These pegmatite dikes were named the Sherritt Gordon pegmatites after the company working on the dikes. (Later renamed the Grass River pegmatites) After further exploration in the area, several other pegmatite bodies were discovered in 1955 by Combined Developments and were named the Violet Pegmatites. These pegmatites are now known as the Thompson Brothers Pegmatites, which were named to honor the "Thompson Brothers" for their historic work early in the property's history.

In 1942, mapping and sampling was conducted by Sherritt Gordon Mines on the property. Subsequently 29 diamond drill holes were drilled by Sherritt Gordon Mines on one of the spodumene bearing pegmatite dikes. Only 21 of these holes were drilled on the current claims held by SLR.

In 1956, CJ Power drilled 5 holes for a total of 246 m. These holes are outside of the current property boundary. From the logs, it was noted that pegmatites were intersected, however, spodumene was absent. Therefore, no logs or assays were completed. They had also excavated trenches on several islands in the Crowduck Bay Area. Magnetawan Iron Mines Ltd had also carried out exploration in 1956 while searching for other copper and nickel prospects on the northeastern shore of Crowduck Bay. Ground based geophysics and mapping were conducted which returned poor results. A 11-hole drill program followed for Cu and Ni (nickel).

Combined Developments Ltd had conducted a 26-hole drill program in 1956 as well, totaling 2,356 m. The holes had intersected the Violet Pegmatite containing spodumene and assays were sent to the lab for testing.

The Thompson Brothers as they were known, explored the property for around 10 years, from 1976-1987, by completing trenching and sampling. They drilled 2 shallow holes of 28.2 (later deepened to 58.77 m) and 60.96 m. The first hole was drilled in 1978-1979 and the second hole was drilled in 1981.

In 1985, there was development work that was done on Thompson #1 and Thompson #5 which included blasting and trenching one area. The trenching and blasting exposed a previously covered portion with abundant (20%) spodumene.

In 1989, Lakefield Research carried out metallurgical testing and produced a spodumene concentrate from samples that were taken from a trench. The head grade of the rock sample was 2.93% Li_2O. From this sample, they managed to produce a concentrate that had a grade of 5.19% Li_2O.

Minor trenching and sampling of the TB-1 dike had been carried out in 1995 by Strider Resources. The following year, a 1,600mX400m grid was cut on the property with lines spaced every 50m.

From 1997-2006, 60 holes were drilled, however, only 3 of these were on the claims currently held by SLR.

Between 2007-2009, the property was optioned off to two other companies (Black Pearl Minerals and Forbes and Manhattan Inc), however no work was completed.

Bison Gold worked on the southwest side of Crowduck Bay where 266 soil samples were taken. Although the assays that were returned for gold (Au) were poor, one sample returned an anomalous Li grade from a known pegmatite occurrence.

In 2016, Ashburton optioned the TBL Property from Strider and then entered into an option agreement with Manitoba Minerals PTY Ltd of which Nova Minerals is the parent company. The property was prospected, and an attempt was made to find historical drill holes. Nine surface samples of pegmatite were sent for assays. In the Fall 2016, a program of prospecting and soil sampling was completed. During the winter of 2017, 6 drill holes totaling 1,006.58 m was completed on the TB-1 pegmatite. No report was done to summarize this work, however, the data files are available and have been reviewed as a part of this report. Quantum changed its name to Nova Minerals on December 15, 2017. Ashburton Ventures Inc. changed its name to Progressive Planet Solutions Inc. on May 31, 2018.

In 2018, Nova Minerals carried out another drill program consisting of 18 holes totaling 3,798.14 m on the TBL project. In March 2018, Nova staked an additional 18 mineral claims (Block B, 3,319 ha) contiguous with the original TBL property (Block A, 2,277 ha.) which can be seen in Figure 3.1. The Block B claims have been transferred to Snow Lake (Crowduck) Ltd., a wholly owned subsidiary of SLR.

In July 2018, Nova Minerals Inc. released an inferred resource estimate of 6.4 Mt @1.38% Li_2O. This resource estimate was prepared by Olaf Frederickson in accordance with JORC.

During 2021, Snow Lake Resources retained Frank Hrdy, P. Geo to prepare an NI 43-101 report. Conclusions drawn from that report were that the project was at an advanced stage, and that the project consists of Mineral Resource Estimate of 9,082,649 tonnes grading 1.00% Li_2O and the Inferred Resource of 1,967,911 tonnes at 0.98% Li_2O.

*For a complete set of drilling information of the property can be found in Appendix A of this report.

5.2 Production

To date, there has been no Li production from the pegmatites in the region. However, the Tanco Mine in southeastern Manitoba, northeast of Winnipeg has been a producer of Li, along with tantalum (Ta) and niobium (Nb) from a large pegmatite deposit. This deposit is of a different class from the classification that Cerny, P., had developed.

6. Geological Setting, Mineralization and Deposit

6.1 Regional Geology

The TBL and GR projects are geographically located in the Churchill geological province at the northeastern edge of the east-trending Flin Flon Volcanic Belt. The geological province has been dated at 1.92-1.88 billion years. The Flin Flon domain lies to the South of the Kisseynew Sedimentary Gneiss Belt which is 140 km wide, 240 km long and trending east. The Kisseynew Domain is a metasedimentary terrane that was caught in the collision zone of the Trans-Hudson orogen between the Archean Superior and Hearne Cratons at approximately 1.9-1.7 billion years. (Ansdell, K.M., et al., 1995) The generation of 1.92-1.87 billion years arc and oceanic crust in the Reindeer zone was followed by intra-oceanic accretion. Subsequently, intrusive and volcanic arcs had developed on top of the intra-oceanic accretionary complex which make up the Flin Flon Domain.

To the south of the Flin Flon domain, rocks from the West Canada Sedimentary Basin can be found.

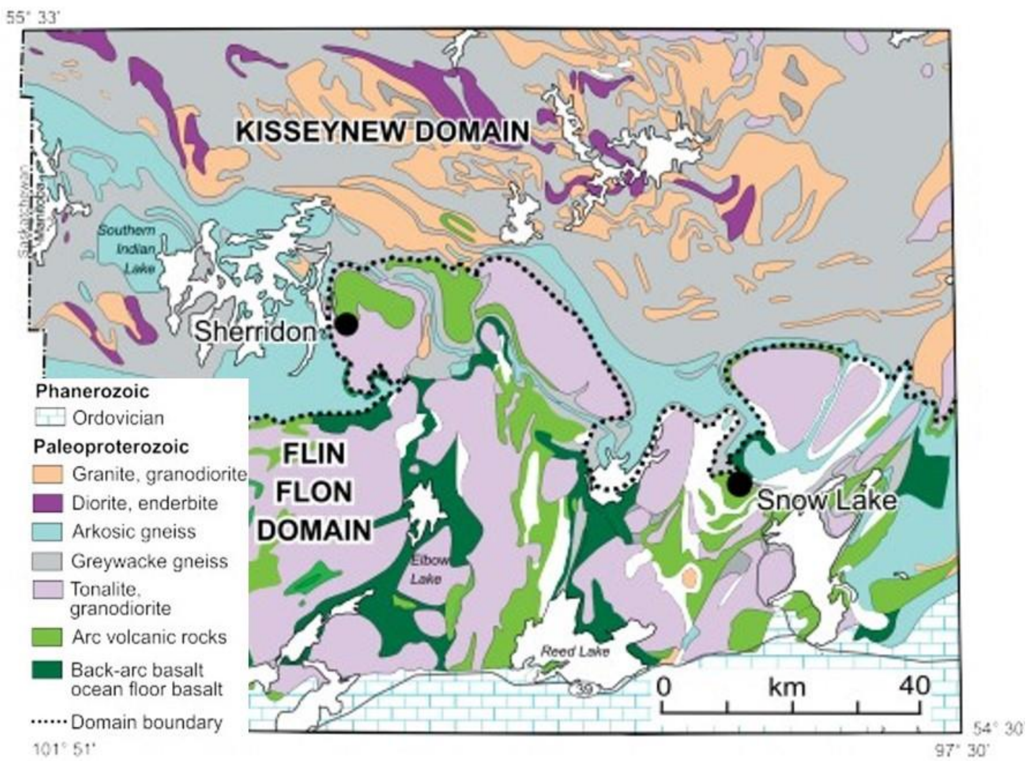


Figure 6-1: Regional Geology Map of Manitoba.

6.1.1 Surficial Geology

The rocks that make up the project area are Precambrian intrusives, metasedimentary, and metavolcanic which has a landscape of glacially scoured irregular surfaces with high relief. The units that are shown in purple in Figure 6.2 are offshore glaciolacustrine sediments composed of beds of clay, silt, and minor sand measuring between 1-20 m thick. The sediments were deposited from suspension of in offshore, deep water of glacial Lake Agassiz. They are usually scoured and homogenized by icebergs. The organics are mostly composed of peat or muck. Low relief wetland deposits can also be found, especially in areas of very low relief. The type of wetland settings that these rocks can be found in are fen, bog, swamp, and marsh.

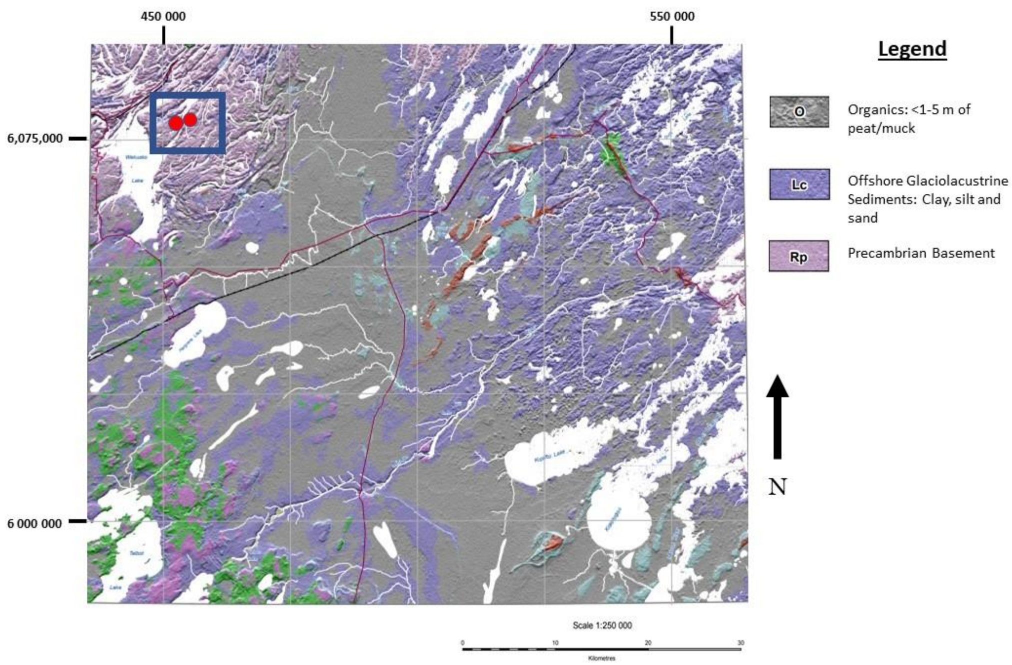


Figure 6-2: Quaternary Geology of the Wekusko Lake Region. Red dots show the location of the TBL and GR dikes. (Modified from https://www.gov.mb.ca/iem/geo/gis/sgcms/pdfs/SG-63J_2006.pdf)

6.1.2 Property Geology

On the East side of Wekusko Lake, the bedrock consists of several fault-bounded blocks made up of juvenile ocean floor, arc related volcanic rocks and fluvial-alluvial and turbiditic sedimentary rocks.

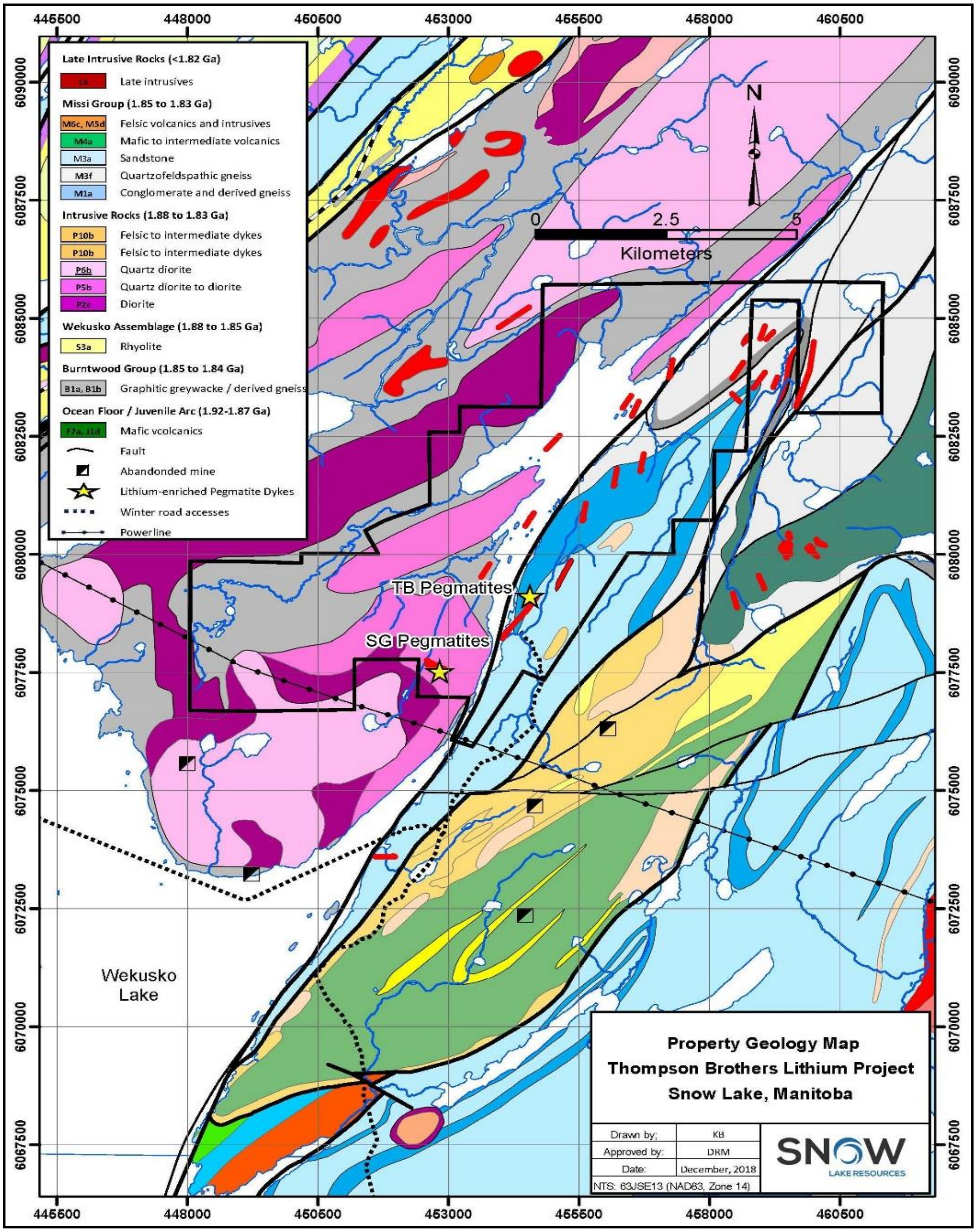


Figure 6-3: Geology of the Thompson Brothers Lithium Project,

The Western Missi Block is bounded to the west by the Crowduck Bay Fault and to the east by the Herb Lake Fault. The strata here are folded into a tight syncline. The rocks that make up the

Missi Group (1.85-1.83 billion years) are mostly clastic sedimentary rocks consisting of polymictic conglomerates, greywackes and sandstones which are thought to have been deposited in an alluvial-fluvial environment. The Missi group also contains thin units of interbedded felsic volcanic rocks. On the southeast side of the Herb Lake Fault lies the Herb Lake Block which mostly consists of a folded sequence of mafic to felsic volcanic rocks. The core of the fold is dominated by basalt with more felsic compositions of basaltic andesite and andesites becoming more prevalent towards the contacts with the felsic volcanic rocks. To the northeast of the map, the North Roberts Fault block consists of mafic volcanic rocks (1.92-1.87 billion years) which were remnants of the ocean floor during the Trans-Hudson orogeny.

To the west of the Crowduck Bay fault, the rocks are mostly sedimentary turbidite sequences of the Burntwood Group (1.85-1.84 billion years) that were subsequently intruded by plutonic rocks.

To the east of Wekusko Lake there are 3 main clusters of spodumene-bearing pegmatite dikes that are known as the Thompson Brothers (TB), Grass River (GR) and Zoro pegmatites. All pegmatites except for the Zoro pegmatite occur on the property. The Zoro pegmatite is on property owned by Foremost Lithium (formerly Far Resources) located to the east of the Thompson Brothers dike.

The GR pegmatites intrude diorite to quartz diorite while the Thompson Brothers pegmatite intrudes into sedimentary greywackes and conglomerate rocks of the Missi group. The dikes also differ in orientation.

All dike cluster are interpreted to have exploited fracture systems that formed during the regional D4 structural event which is highlighted below. (Cerny,P., et al. 1991)

6.1.3 Structural Geology

Structural studies of the Wekusko Lake geology record 4 deformational events that have affected rocks in the area. (Benn, D.N., 2022)

1. Folding associated with the accretion of the Flin Flon-Glennie arc between 1.88-1.87 billion years. This involved crustal shortening and plutonism.

2. South-southwest compression and the collision between the Kisseynew domain and Flin Flon-Glennie arc with the Sask craton (1.84-1.81 billion years). The result was that the Kisseynew turbidite basin was inverted. Regional metamorphism peaked at 1.81 billion years and at the time, the Snow Lake block had reached temperatures between 500 and 700°C and pressures of 0.4-0.6 GPa.

3. After peak metamorphism the D3 event recorded transpressional northwest trending shortening which buried the Sask Craton at syn- to post-peak metamorphic conditions. The formation of the Crowduck Bay Fault and Roberts Lake Fault blocks was associated with this event. The event is also recorded by Northeast trending mineral extension lineations.

4. A period of brittle to ductile deformation followed which was caused by northwest trending compression. This event might be a continuation of the D3 event; however, dates have not been obtained.

6.2 Mineralization

The Flin Flon belt has been the host to a variety of precious base metal and REE deposits. Major mineralizing events took place during the 3 stages of crustal development of the Trans-Hudson Orogen. These deformation events were pre-accretion, post-accretion, and continent-continent collision. Gold and syngenetic base metal gold deposits are associated with the pre-accretionary stage. The syn- post-accretionary stage hosts intrusion-related precious metal deposits. The continental collision stage is the host to orogenic gold and lithium-cesium-tantalum pegmatite deposits.

The mineral being sought after at the Snow Lake project is spodumene, a pyroxene group, lithium aluminum silicate ($LiAlSi_2O_6$). Spodumene occurs as prismatic and elongated crystals and tends to have striations across the crystal face (Figure 6-4). It comes in a variety of colors, generally based on how iron-rich the mineral is. Iron rich minerals appear dark green while white spodumene is a product of low iron. Interestingly, the TBL and GR spodumene is a light green colour but is Fe-poor.

Figure 6-4: An example of part of a pegmatite dike with spodumene (green) and potassium feldspar (pink) megacrysts

Figure 6-5: Piece of drill core showing the presence of spodumene (green), potassium feldspar (pink), biotite (black) and tourmaline (light to dark grey)

The TB and GR pegmatite dike clusters make up part of the Wekusko Lake pegmatite dike field. Several other dikes have been recorded towards the north along the Crowduck Bay fault. These clusters of dikes are also known as dike swarms. The dikes are all tabular in form and steeply dipping.

The Thompson Brothers dikes are located on the east shore of Grass River linking Crowduck Bay to Wekusko Lake. At this location, there are 3 mineralized pegmatite dikes named TB-1, TB-2 and TB-3 that intrude into Missi group pebble to cobble conglomerates and greywackes.

The TB-1 dike was drill tested by Nova Minerals in 2017 and 2018 with 24 diamond drill holes, and 30 drill holes were drilled by Snow Lake Lithium in 2022 on the main dike.

The TB-1 dike strikes 040° and dips about 85° southeast. It ranges from 2.9-15.4 meters in true thickness but averages approximately 7.7 meters wide.

Dike TB-2 is situated to the north of TB-1 and has been traced for about 400 m along strike. This dike has not been located in outcrop and has had minimal drill testing with 8 holes. It is approximately 2.8 m thick and oriented sub-parallel to TB-1.

Dike TB-3 is located approximately 250m to the northwest of dikes TB-1 & 2. It is approximately 2.0 m thick and oriented sub-parallel to the other dikes with a strike of 040 and dip of 80° to the northwest.

All TB dikes are sub-parallel to the northeast-trending foliation and strata in general. Dike TB-2 could represent the faulted northern extension of dike TB-1, or an en-echelon dilational structure. Dike TB-2 remains open along strike to the north and to depth.

Grass River consists of 4 sub-parallel lithium-bearing pegmatite dikes.

The dikes on the GR property intrude into older andesitic and monzonitic rocks. The average trend of the dikes is 125° and average dip of 60°. The total depth of the mineralized dikes is 574 m, a total length of 500m and a total width of 200m. As in the TB dikes, the pegmatite bodies have mineralized and unmineralized sections which were distinguished by the presence or absence of spodumene

6.3 Deposit

Pegmatites are a type of coarse-grained intrusive igneous rock which have highly evolved compositions and can be enriched in incompatible elements. (Benn, D.N., 2022) These deposits are known to host industrial, rare metals, exotic minerals, and gemstones. The pegmatites of the

Wekusko Lake pegmatite field occur as steeply dipping dikes. (Benn, D.N., et al., (2022) The pegmatites of interest have been dated at 1.78 billion years.

Pegmatites typically occur as dike swarms that emanate from the roof of a source granitic pluton. (Benn, D.N., 2022).

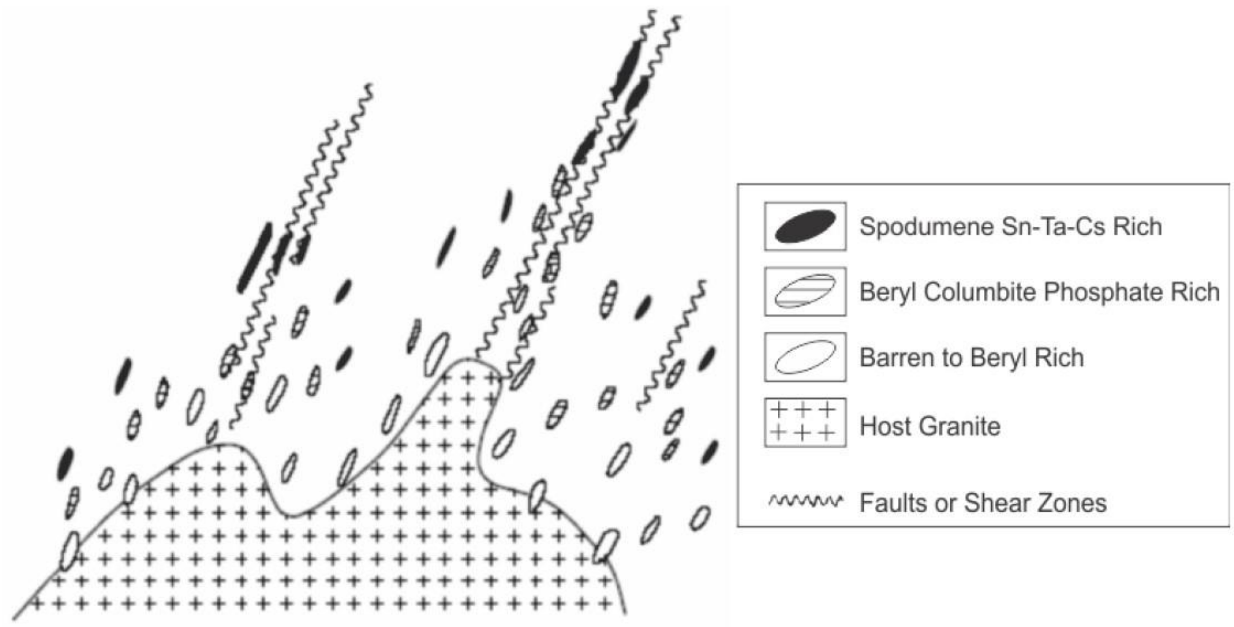


Figure 6-6: The formation of pegmatite deposits (Taken from Benn, D.N., 2022)

Pegmatites are formed from extremely slowly cooled igneous body which forms during the very last stage crystallization of magma and are enriched in volatiles and rare elements. (Omanayin, Y.A., et al., 2022) The minerals which make up pegmatites are usually crystals of quartz, feldspars and micas. These types of igneous rocks can range in composition from mafic to granitic to syenitic (Omanayin, Y.A., et al., 2022) These bodies can occur in many geological settings as irregular masses, lenses, sills or dikes and can have extents from a few metres to several kilometers across. (Omanayin, Y.A., et al., 2022) The crystals of the slow-cooling magma are typically 3 cm or more across, however, it has been documented that crystals can also span 10 meters or so. (Omanayin, Y.A., et al., 2022)

Baker hypothesized that early in the cooling history of a pluton, dikes cannot propagate longer distances and will be closer to the source of the parent intrusion (Baker, D.R., 1998) This is because the surrounding country rocks have not been significantly heated. Dikes that form a lot later can propagate approximately 10 km away from the source. Because these magmas migrate from the source, it can be expected that these systems are chemically more evolved than the parent source.

The granitic magmatic bodies that are the sources of pegmatites contain substantial water. The first minerals to crystallize are usually anhydrous minerals such as felspars which, in turn, leaves the magma increasingly water-rich. (Omanayin, Y.A., et al., 2022) Rare elements such as Li, Nb, Ta, Be, W and Sn are restricted from entering into atomic substitution in the granitic minerals and become concentrated in the water-rich residual magma forming minerals such as spodumene, niobite, tantalite, beryl, wolframite, cassiterite and Columbite. (Omanayin, Y.A., et al., 2022) As quartz and feldspar start to crystallize, the melt becomes more enriched in incompatible elements (Ta and Nb), Rare alkalis (Li, Cs, Rb) and fluxes of B, F, Li, P and H_2O. These phases help lower the granite melt solidus, reduce the viscosity, and increase ionic diffusivity. (Benn, D.N., 2022)

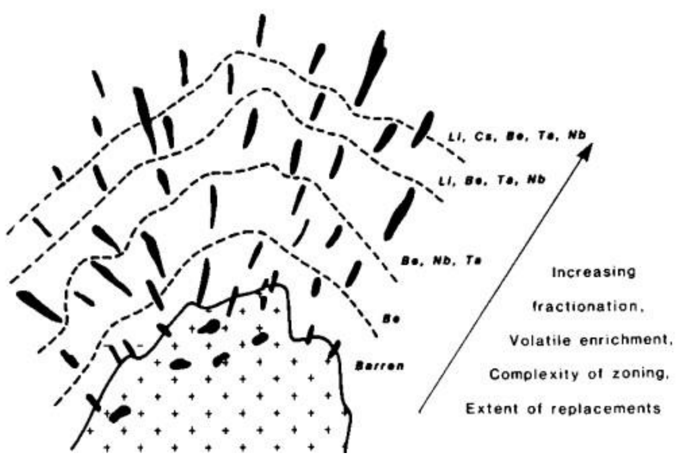


Figure 6-7: The fractionation of metals with distance from the granitic source showing the complexity of these types of deposits.

Cerny attempted to classify pegmatites, grouping them into classes, families, types, and subtypes. These classifications are based on emplacement depth, bulk chemistry, geochemical signature of accessory minerals, metamorphic environment, and P-T conditions of crystallization. These classification schemes are widely used and accepted and are outlined in the tables below. (Cerny, P., 1991)

Class	Family*	Typical Minor Elements	Metamorphic Environment	Relation to Granites	Structural Features	Examples
Abyssal	—	U,Th,Zr,Nb,Ti,Y, REE,Mo poor (to moderate) mineralization	(upper amphibolite to) low- to high-P granulite facies; ~4-9 kb, ~700-800°C	none (segregations of anatectic leucosome)	conformable to mobilized cross-cutting veins	Rae and Hearne Provinces, Sask. (Tremblay, 1978); Aldan and Anabar Shields, Siberia (Bushev and Koplus, 1980); Eastern Baltic Shield (Kalita, 1965)
Muscovite	—	Li,Be,Y,REE,Ti, U,Th,Nb>Ta poor (to moderate)** mineralization; micas and ceramic minerals	high-P, Barrovian amphibolite facies (kyanite-sillimanite); ~5-8 kb, ~650-580°C	none (anatectic bodies) to marginal and exterior	quasi-conformable to cross-cutting	White Sea region, USSR (Gorlov, 1975); Appalachian Province (Jahns *et al.*, 1952); Rajahstan, India (Shmakin, 1976)
Rare-element	LCT	Li,Rb,Cs,Be,Ga,Sn, Hf,Nb≳Ta,B,P,F poor to abundant mineralization; gemstock; industrial minerals	low-P, Abukuma amphibolite (to upper greenschist) facies (andalusite-sillimanite); ~2-4 kb, ~650-500°C	(interior to marginal to) exterior	quasi-conformable to cross-cutting	Yellowknife field, NWT (Meintzer, 1987); Black Hills, South Dakota (Shearer *et al.*, 1987); Cat Lake-Winnipeg River field, Manitoba (Černý *et al.*, 1981)
	NYF	Y,REE,Ti,U,Th,Zr, Nb>Ta,F; poor to abundant mineralization; ceramic minerals	variable	interior to marginal	interior pods, conformable to cross-cutting exterior bodies	Llano Co., Texas (Landes, 1932); South Platte district, Colorado (Simmons *et al.*, 1987); Western Keivy, Kola, USSR (Beus, 1960)
Miarolitic	NYF	Be,Y,REE,Ti,U,Th, Zr,Nb>Ta,F; poor mineralization; gemstock	shallow to sub-volcanic; ~1-2 kb	interior to marginal	interior pods and cross-cutting dykes	Pikes Peak, Colorado (Foord, 1982); Idaho (Boggs, 1986); Korosten pluton, Ukraine (Lazarenko *et al.*, 1973)

Notes
* See Table 4 for explanation; ** Some Soviet authors distinguish a rare-element-muscovite class, in all respects intermediate between the muscovite and rare-element classes proper

Figure 6-8: The Four Classes of Granitic Pegmatites (Černy, P., 1991)

The classes are abyssal, muscovite, Rare-Element and Miarolitic. The Rare-Element Class is subdivided into the LCT (lithium, cesium and tantalum), and NYF (niobium, yttrium and fluorine). The types of pegmatites which have an enriched Li-signature are the Complex and Albite-Spodumene subtypes. The predominant lithium minerals which are associated with pegmatites are spodumene (LiAlSi2O6), petalite (LiAl(Si4O10)), and lepidolite (KLi2Al

(Si4O10)(F,OH)2 to K(Li1.5Al1.5)(AlSi3O10)(F,OH)2) and also the phosphate series amblyonite-montebrasite (LiAlPO4(F,OH)). (Cerny, P., 2012)

PEGMATITE TYPE **[feldspar + mica content]**	***Pegmatite subtype,*** **geochemical signature**	**Typical minerals**	**Economic potential**	**Typical examples**
RARE-EARTH [Kf>plg to ab; bi≥msc]	*allanite-monazite* (L)REE,U,Th (P,Be,Nb>Ta)	allanite monazite	(REE)	Upper Tura River, Ural Mtns. (Fersman, 1940) West Portland, Quebec (Spence and Muench, 1935) Kobe, Japan (Tatekawa, 1955)
	gadolinite Y,(H)REE,Be,Nb>Ta F(U,Th,Ti,Zr)	gadolinite fergusonite euxenite (topaz) (beryl)	Y,REE,U (Be,Nb-Ta)	Shatford Lake group, Manitoba (Černý *et al.*, 1981) Ytterby, Sweden (Nordenskjöld, 1910) Evje-Iveland field, Norway (Bjørlykke, 1935) Barringer Hill, Texas (Landes, 1932) Pyörönmaa, Finland (Vorma *et al.*, 1966)
BERYL [Kf>ab; msc>bi]	*beryl-columbite* Be,Nb≳Ta (±Sn,B)	beryl columbite-tantalite	Be (Nb-Ta)	Meyers Ranch, Colorado (Hanley *et al.*, 1950) Greer Lake group, Manitoba (Černý *et al.*, 1981) Donkerhoek, Namibia (Schneiderhöhn, 1961) Ural Mtns., USSR (Kuzmenko, 1976)
	beryl-columbite-phosphate Be,Nb≳Ta,P (Li,F,±Sn,B)	beryl, columbite-tantalite triplite triphylite		Hagendorf-Süd, Germany (Strunz *et al.*, 1975) Dan Patch, South Dakota (Norton *et al.*, 1964) Connecticut localities (Cameron and Shainin, 1947) Crystal Mtn. field, Colorado (Thurston, 1955)
COMPLEX [Kf≳ab; msc≳lep]	*spodumene* Li,Rb,Cs,Be,Ta≳Nb (Sn,P,F,±B)	spodumene beryl tantalite (amblygonite) (lepidolite) (pollucite)	Li,Rb, Cs,Be Ta, (Sn,Ga,Hf)	Harding, New Mexico (Jahns and Ewing, 1976) Hugo, South Dakota (Norton *et al.*, 1962) Mongolian Altai #3 (Wang *et al.*, 1981) Etta, South Dakota (Norton *et al.*, 1964) White Picacho, Arizona (London and Burt, 1982a) Manono, Zaire (Thoreau, 1950)
	petalite Li,Rb,Cs,Be,Ta>Nb (Sn,Ga,P,F,±B)	petalite beryl tantalite (amblygonite) (lepidolite)		Tanco, Manitoba (Černý, 1982c) Bikita, Zimbabwe (Cooper, 1964) Varuträsk, Sweden (Quensel, 1956) Luolamäki, Finland (Neuvonen and Vesasalo, 1960) Londonderry, Australia (McMath *et al.*, 1953) Hirvikallio, Finland (Vesasalo, 1959)
	lepidolite F,Li,Rb,Cs,Be Ta>Nb (Sn,P,±B)	lepidolite topaz beryl microlite (pollucite)	Li,Rb, Cs,Ta Be (Sn,Ga)	Brown Derby, Colorado (Heinrich, 1967) Pidlite, New Mexico (Jahns, 1953b) Himalaya district, California (Foord, 1976) Khukh-Del-Ula, Mongolia (Vladykin *et al.*, 1974) Wodgina, Australia (Blockley, 1980)
	amblygonite P,F,Li,Rb,Cs Be,Ta>Nb (Sn,±B)	amblygonite beryl tantalite (lepidolite) (pollucite)	Li,Rb Cs,Ta Be (Sn,Ga)	Viitaniemi, Finland (Lahti, 1981) Malakialina, Madagascar (Varlamoff, 1972) Peerless, South Dakota (Sheridan *et al.*, 1957) Finnis River, Australia (Jutz, 1986)
ALBITE-SPODUMENE [ab>Kf, ((msc))]	Li (Sn,Be,Ta≳Nb, ±B)	spodumene (cassiterite) (beryl) (tantalite)	Li,Sn (Be,Ta)	Kings Mountain, North Carolina (Kesler, 1976) Preissac-Lacorne, Quebec (Mulligan, 1965) Peg Claims, Maine (Sundelius, 1963) Volta Grande, Brazil (Heinrich, 1964)
ALBITE [ab>>Kf, (ms,lep)]	Ta≳Nb,Be (Li,±Sn,B)	tantalite beryl (cassiterite)	Ta (Sn)	Hengshan, China (Černý, 1989a) USSR (Solodov, 1969) Tin Dyke, Manitoba (Chackowsky, 1987)

Figure 6-9:Classification of Pegmatites of the Rare-Element Class (Černy, P., 1991)

Pegmatites commonly exhibit zoning in the deposit. These zones are characterized by their differences in grain size, texture, or mineralogy. Pegmatites that do not display zoning are usually near the source granite and tend to be poorly evolved. (Benn, D.M., 2022) 5 to 9 zones can be observed in most pegmatites. (Up to 11 at the Tanco Mine) The 5 main zones are, from the inner to the outer margins, the border, wall, intermediate, central and core zones. Not all zoning is always present at all dikes. Zonation can vary with depth and the contacts between the zones can be gradational.

The pegmatites of the Wekusko Lake area from the drill logs appear to be of the complex albite spodumene type because they do not have any complex internal zonation of mineralogical units or diverse mineralogy.

7. Exploration

Nova Minerals announced in May 2016, that the company was planning on developing an exploration program for the Snow Lake property that would verify the historic estimate as a mineral resource in accordance with the S-K 1300 code which would include:

- A high-resolution airborne magnetic survey over the entire property.
- Due diligence drilling over the known dikes.
- Additional exploration drilling along strike to potentially test new targets that were identified.
- Property-scale mapping, prospecting, and sampling to explore larger property for another dikes/continued dike corridor.
- Take additional sample material for further metallurgical studies.

Early reconnaissance exploration was taken on the property in 2016 and consisted of mapping of Li-bearing outcrops as well as surface sampling of spodumene bearing pegmatites. The goal of the exploration program was to prove the presence of lithium and determine Li content using modern technology and checking this with broader historic work conducted on the property to validate the data.

The interpretation of the historical data has proven that there are other lithium bearing structures on the property which has the potential to increase overall tonnages on the deposit.

In November 2016, an exploration program was conducted on the TB property by Dahrouge Geological Consulting Ltd on behalf of Ashburton Ventures. The primary purpose of this exploration program was to validate and expand on the previous 2016 work campaign, as well as other historical work that was undertaken on the property. The crew was also employed to investigate the potential for other pegmatites on the property, as well as carry out further geological mapping and sampling of the pegmatite outcrops.

From 2016-2017, exploration work on the property included 2 modest programs of prospecting, outcrop mapping, surface rock sampling (9 samples) and soil sampling (942 samples). Two lines were missed for the soil sampling program due to a combination of poor weather conditions and difficult access from the lake. Other samples could not be taken because of swampy conditions, or lack of profile to sample.

Figure 7-1:Locations Selected for the Soil Sampling Program.

On August 28, 2018, the company announced that the prospecting team had found a new zone of spodumene bearing outcrops previously identified as part of the Sherritt Gordon pegmatite cluster 300 m to the southeast. The company was pleased with the new discovery which has the potential to increase the resource estimate and add to the scale of the Thompson Brothers deposit.

Nova Minerals carried out a drilling program during the winter months starting in 2017 and finished in 2018 to test the extent of the TB dike. The drill holes were then analyzed for their lithium potential. SLR also drilled another part of the Thompson Brothers property (Holes BYP 001-008).

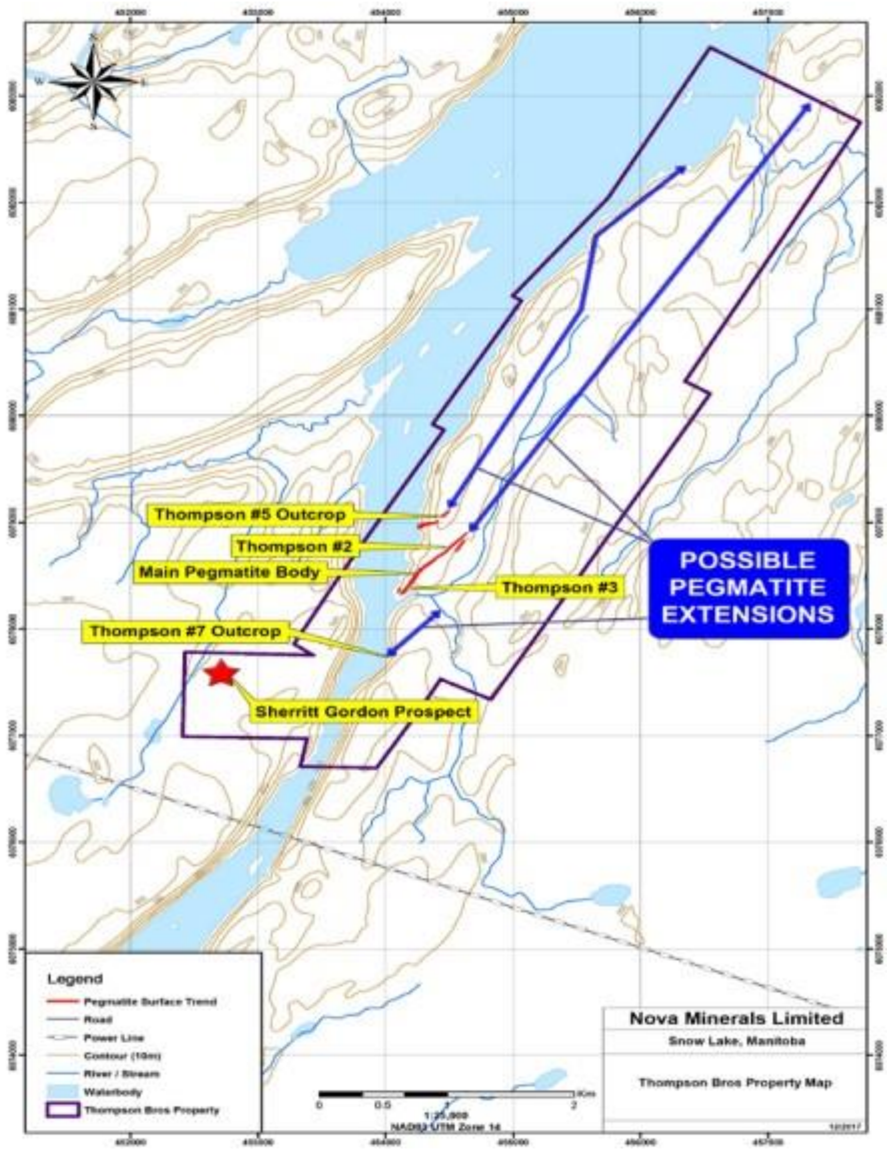


Figure 7-2:Targets for the 2017 drilling campaign.

SLR started a drill program in 2022 which consisted of drilling an additional 30 holes on the Thompson Brothers property. The company's focus then shifted to the Grass River pegmatites on the property where 47 holes were drilled to date.

The company had also executed a magnetic survey utilizing a flying drone that can map the fabrics which control the mineralization as well as contrasts in magnetic susceptibility with neighboring lithologies. The EarthEx Drone Mag had previously demonstrated in 2019 that the magnetic susceptibility of the TB Pegmatite was notably lower than the surrounding country rocks. The results of the drone survey were released on February 15, 2022 and are shown below.

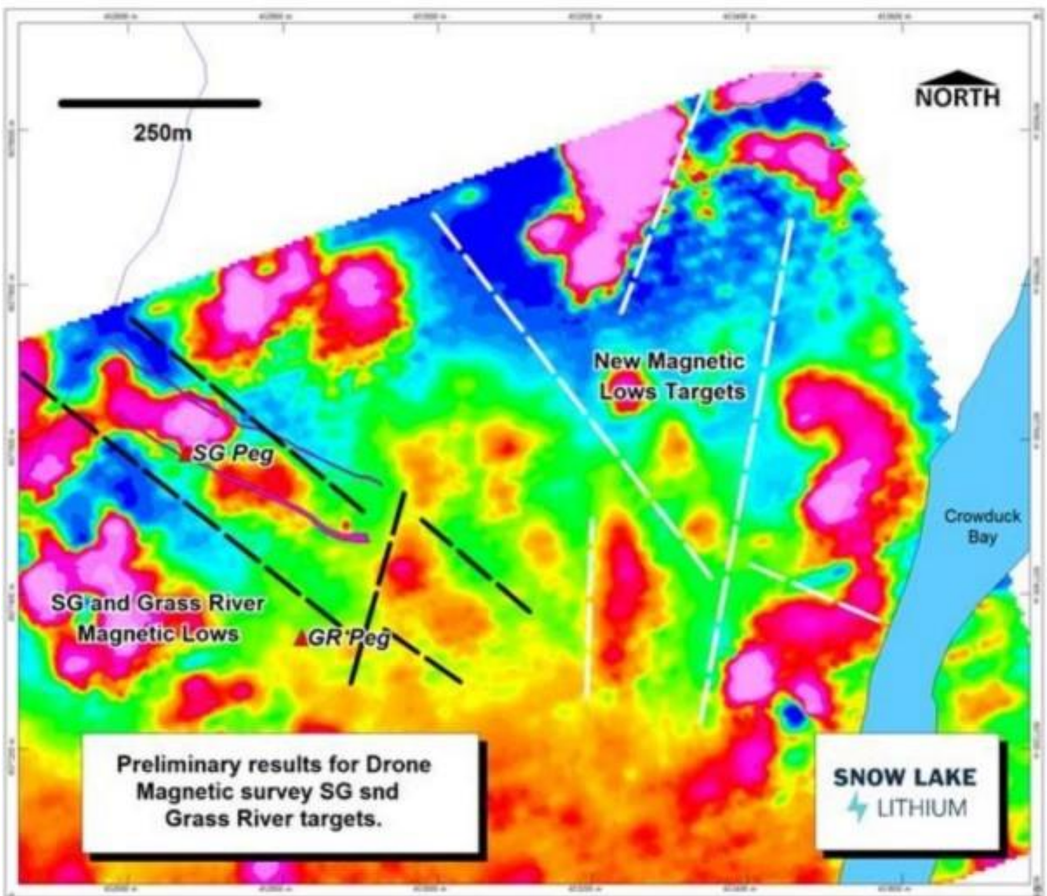


Figure 7-3:Results of EarthEx Drone Manetic Susceptibility Map

7.1 Drilling

A table of drilling information as well as drill core highlights can be found in the Appendix section of this report.

1942: Sherritt Gordon drilled 28 holes with one wedge hole totaling 906.72 m. Due to their age, the assessment reports didn't include coordinates for the drill locations or drilling azimuths. All holes were drilled at a dip of -35° to -45°,

1955: Combined Developments completed a total of 17 holes on the Violet Property. The holes totaled 1,676.23m and drilled at an azimuth of 030 to 090 and at dips ranging from -45° to -60°. The coordinates for these locations are recorded.

1956: Combined Developments drill program continued through 1956 with 9 holes for a total of 1,122.41m. These holes followed the abovementioned azimuths and dips.

1978-1979: The Thompson Brothers carried out a lot of work on the property in the years 1978-79 and 1981. In the year 1978, the brothers drilled a hole for a total of 28.2 m in 1978 and then deepened this hole to 59.73 m the following year.

1981: Thompson Brothers drilled another hole at 090/-47 to a total depth of 60.96m.

The plan for the 2017 drilling program was to set preliminary drill targets that were identified using historic hole information. The holes would be along a series of section lines that would intersect the pegmatite at varying depths along the strike length using step out drilling at 100-meter intervals. The step out direction would be from the southwest to the northeast.

During the winter of 2017, six holes were drilled by Manitoba Minerals PTY (a subsidiary of Nova Minerals) to a total depth of 1,007 m to test the extent of the TB-1 pegmatite. The drill holes are listed in Appendix A and were given hole ID's TBL-1 through TBL-6. NQ size core was drilled and recovered.

Drilling resumed during the winter months of 2018 with 18 additional holes (TBL- 7 through 24) cored for a total of 3,798 m. Drill sections and plans were prepared by SLR. Interpretations of geology and mineralization were established, and a project database was created for the project. A resource model was also planned for the deposit.

During the 2018 drilling program, Asabanaka Drill Services G.P. Corp. was selected as a contractor to provide drilling services. A Zinex A-5 drill produced NQ sized core. The core was found to be competent with excellent recovery averaging 99.75%. This phase of drilling was designed to test the extensions of the known pegmatite, identification and preliminary definition of nearby sub-parallel pegmatites outcropping to the northwest, and infill drilling for resource definition.

A third drill program was initiated by SLR in 2022 and included expanding the initial resource of the Thompson Brothers pegmatite dike. An additional 38 holes were drilled in 2022 by SLR and were named TBL-025 to TBL-054. 8 holes were also drilled on another prospect named BYP-001 to BYP-008. The drilling company that was used for the project was called Quesnel Bros Drilling which supplied two drills. SLR had also signed a contract for a third drill from Forage BRL to join the drilling campaign.

The Grass River pegmatites were drilled for the first time by SLR in 2022. The drill program consisted of 47 drill holes totaling 9,187 m. These drill holes and highlights are listed in Appendix A.

8. Sample Preparation, Analyses, and Security

The Qualified Person was on site at the SLR property from May 23-25th, 2023. He was accompanied by Mr. Brian Youngs (VP of Exploration), and Mr. Ronald Scott (On site Geologist) of SLR. The logging and cutting facilities were carried out at a residence owned by SLR, and the core storage facility was temporarily at the gun range in town.

8.1 Logging and Sample Preparation

While on site, the Qualified Person was given a tour of the core cutting and logging facilities and discussed with staff the procedures that were in place when the core was delivered to the logging facilities. Each morning, the core would be delivered to the gun range in town by helicopter. The core would arrive with lids taped on top in bundles. The core was then loaded into a truck and transported to the logging facilities, brought inside and spread out on sawhorses.

Figure 8-1: Photo of the core logging area adjoining the core shack.

The Geotech would check to see whether the blocks inserted by the drillers contained any errors. They would also ensure that the core was oriented the right way and that no boxes were missing. The Geotech would also record the rocks RQD (Rock Quality Designation).

The Qualified Person is satisfied that there was an established chain of custody in place from the time that the drillers emptied the core barrel into the core boxes at the drill, to the time that it arrived at the core logging facilities.

The logging geologist would first analyze the core, making notes of any interesting features, structures, and mineralization. Sampling was performed by the logging geologist who would start inserting sample tags at certain intervals chosen by him. The samples would start 20 m before the start of the dike, and end 20 m after the dike, to ensure that any mineralization in the wall rock would be sampled and sent to the lab for assaying. The core was then photographed while it was wet, with the sample tags in place before being taken to the cutting shack. After being photographed, the core was taken to the cutting shack, where it was cut by the logging geologist using a diamond saw. The unmineralized sections were not cut and would remain as full core in the core box.

Figure 8-2: The core cutting facilities using the diamond core saw. Core racks outside of the cutting area hold core boxes that are awaiting cutting.

After the core was cut, the witness core would be palletized as a bundle and taken to the gun range in town for storage; the mineralized and unmineralized sections separated in two storage areas. Affixed to the end of the core boxes are metal tags that have been stapled to the boxes for identification. The metal tags were labelled with hole name, box number and meterage.

Figure 8-3: Core bundled, tagged and ready for storage.

Figure 8-4: Box ends with metal tags

Figure 8-5: Core storage area at the town gun range.

The mineralized samples were cut and bagged along with the correct sample tag. They were then placed into rice bags with a maximum weight of 18.14 kg and then zip-tied closed.

The logging, cutting, and sampling facilities were found to be adequate and have met industry-accepted standards.

8.2 Drill Sites

The drill holes were geo-spotted, using a Reflex TN14 Gyrocompass, used instead of a traditional compass, greatly improving the accuracy of the drill azimuth and dip. The casing from the drill holes were left in during the 2017 drilling campaign, pulled out in 2018, then left in for 2022. Drill hole caps were placed on the drill casing with the name of the hole, azimuth, and dip. For holes without casing, hole names, azimuth and dip were labelled on a picket and then inserted next to the drill hole for subsequent years verification.

During the QP visit, it was found that hole TBL-020 was missing boxes of some of the best mineralized intercepts, potentially due to a box-tag mislabeling error. A search for the missing core boxes was conducted and abandoned after a short while. The QP was assured that the core would be properly stored on core racks in a storage facility in the coming months, and that these errors would be addressed at this time.

8.3 Drill Core Analysis

The core from 2017 was analyzed at Actlabs in Ancaster, Ontario. The 2018 and early 2022 drill core was analyzed by SRC Geochemical Laboratories, Saskatoon, Saskatchewan, Canada. Post March 2022, SGS Laboratories carried out the preparation of the samples at their lab in Lakefield, Ontario and then shipped them to their lab in Burnaby, British Columbia for analysis.

Actlabs Quality Assurance system is accredited to international quality standards through the Standards Council of Canada and the Canadian Association for Laboratory Accreditation. They are certified to the standard of ISO/IEC 17025:2017.

SRC management systems operate in accordance with ISO/IEC 17025:2005, General Requirement for the Competence of Mineral Testing and Calibration Laboratories. They are also compliant with ASB Requirements and Guidance for Mineral Analysis Testing Laboratories. The lab is assessed on a regular basis, both externally and internally to ensure that it continually meets these requirements. SRC's management system and selected methods are accredited by the Standards Council of Canada.

SGS Canada also conforms to the requirements and is accredited to ISO/IEC 17025.

Sample preparation includes all steps that are taken in the lab to render a sample into a form that is suitable for chemical analysis. This results in sub-samples that are representative of the total sample. Drill core preparation consisted of crushing, grinding, splitting and pulverizing their samples. The labs employ standard industry procedures. Each sample is crushed to better than 70% – 2mm and a 1 kg split was pulverized to better than 85% passing 75 µm. The samples were analyzed using partial and total acid digestion.

The samples at Actlabs were analyzed using code UT-7 Sodium Peroxide Fusion (ICP and ICPMS). This is a total fusion analysis which results in total metal recovery. The elements analyzed were Al, As, B ,Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Ho, Hf, In, K, La, Li, Mg, Mn, Nb, Nd, Ni, Pb, Pr, Rb, S, Sb, Se, Si Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn. The detection limit for Li was 3 ppm.

SRC analyzed the samples under procedure code ICP1 which is a four-acid digestion procedure producing both a total and partial digestion ICP analysis. Partial digestion was achieved by preparing 1.00 g pulp and then digesting it with 2.25 ml of 8:1 HNO_3:HCl for 1 hour at 95°C. The elements that were analyzed after partial digestion were Ag, As, Bi, Co, Cu, Ge, Hg, Mo, Ni, Pb, Sb, Se, Te, U, V, Zn. Total digestion was carried out by preparing 0.125 g of pulp and gently heating it in a mixture of HF/HNO_3/$HCLO_4$ until dry and the residue is then dissolved in dilute HNO_3. The elements that were analyzed after total digestion were Ho, K_2O, La, Li, MgO, MnO, Mo, Na_2O, Nb, Ni, P_2O_5, Pb, Pr, Sc, Sm, Sn, Sr, Ta, Tb, Th, TiO_2, U, W, Y, Yb, Zn and Zr.

SGS used a Na_2O_2 fusion with method code GE_ICP92A50 for Li, Ag, As, Bi, Cd, Ce and then analyzed by ICPAES. The other elements (Co, Cs, Dy, Er, Eu, Ga, Gd, Ge, Hf, Ho, In, La, Lu, Mo, Nb, Nd, Pb, Pr, Rb, Sb, Sm, Sn, Ta, Tb, Th, Tl, Tm, U, W, Y, Yb, and Zr) were tested with a Na_2O_2/NaOH fusion and analyzed using ICPMS with method code GE_IMS91A50. The detection limit for Li was 10 ppm.

Lithium values were given in ppm and converted to Li_2O using a conversion factor of 2.153.

All labs have internal QAQC procedures in place to monitor the accuracy and precision of their work.

8.4 Authors Opinion

The QP has verified that there was a documented and reliable chain of custody of drill core from the time the drillers had emptied the core barrel into the core boxes, delivered it to the core shack, to the cutting shack and transportation to the lab for analysis.

All core logging, sampling and cutting was done to industry accepted standards for the project. The QP is also satisfied that all assaying was done by labs that are accredited and meet ISO/IEC 17025 standards.

9. Data Verification

Part of the verification process includes the Qualified Person analyzing the Quality Assurance/Quality Control (QAQC) protocols that were used by Nova/SLR. Another part of the verification process is to analyze the QAQC protocols that are in place at the lab.

The historical drilling (1942-1997) on the TBL property could not be validated. This is because the locations of the holes weren't surveyed, the logging records are poor and incomplete, assay certificates are unavailable, and no QAQC data is available. This data was useful for geological and exploration purposes; however, this data is not suitable for inclusion in the resource estimate in accordance with SK-1300 regulations.

9.1 Previous Site Visit by Canmine Consultants

The former Qualified Person (Frank Hrdy) had visited the site several times while the drilling campaign was ongoing. He personally discussed core logging and handling procedures. He also had the logging geologist lay out some example core so that the former Qualified Person could verify that the procedures used were industry standard, and acceptable for the purposes of SK-1300. A follow-up re-logging and re-sampling program was suggested by the Qualified Person. This was to ensure that mineralized sections at the margins of the dike contacts and into the host rock that were missed the first-time logging, were logged to an acceptable standard.

The Qualified Person also conducted a DGPS survey of many of the drill holes but could not locate all of them because drilling was done on frozen ground, and some were under deeper water during his sight visit. He also visited the SGS Laboratory in Saskatoon for a tour of the facilities.

The former Qualified Person's site visit covered up to hole TBL-024 but did not include any of the 2022 drilling.

9.2 Quality Assurance and Quality Control

QAQC are the major components of quality management. Quality Assurance is "The assembly of all planned and systematic actions necessary to provide adequate confidence that a product, process, or service will satisfy given quality requirements". Quality control is defined as "The system of activities to verify if the quality control activities are effective". These systems are designed to monitor precision and accuracy of assay data. Checks for contamination are also performed using these procedures. QAQC checks can also disclose overall sampling-assay variability of the sampling method itself. The QA are checks and procedures which are followed before a batch of samples are sent to the laboratory. This involves the insertion of check samples which include blanks, duplicates, and Certified Reference Standards. QC is the process that is used to check precision of the assay data on returning from the laboratory. This is critical for determining the quality of the data as well as any deviation that exists from the norms. The checks can also be used determine if any re-sampling needs to be performed.

The 2017 drilling program was managed by Dahrouge Geological Consulting Ltd. During the site visit in 2019, the previous Qualified Person was not shown the core handling, logging, sampling, shipping, assaying, security protocols from the 2017 program at the time that he wrote the report. However, he was shown the QAQC program during the, however, the re-logging and re-sampling in August 2019, that was conducted to industry accepted QAQC protocols. In addition, all drill core that was analyzed by Actlabs from the 2017 drilling campaign was re-assayed by SRC.

QAQC protocols consist of the regular insertion of blanks, duplicates, and Certified Reference Standards (OREAS 147, 148, 149 and 999) with every 20-sample batch. Drill core samples that were a part of the TBL Project were sent to SRC labs in Saskatoon for preparation and analyses and the duplicates and check samples were sent to SGS Laboratories in Lakefield, Ontario.

Core boxes were inventoried, meterage blocks were verified, core recoveries and RQD were estimated, and bulk densities were determined. The core was logged and relevant data on lithologies, mineralogy, and structures were documented, and sampling intervals designated. An experienced logging geologist and technician followed standard core logging, cutting and sampling protocols.

9.3 Sampling Method and Approach

Sampling of mineralized core was done on a geological basis, as determined by the person responsible for logging the core. The logging geologist was responsible for marking sample intervals and drawing a cut line down the core to visually aid the core cutters on where to make their cut. Photos of the drill core were digitally taken before being sampled. Sampling intervals were typically 1.0 m, with samples as short as .07 m. and as long as 1.75 m.

Table 9-1: Summary Statistics for Sampled Drill Core Intervals in the Database

TBL and GR Database – Sampling Interval Statistics	
Count	1967
Minimum	0.07
Maximum	1.75
Range	1.68
Average	1.06
Standard Deviation	0.034
Median	1
Mode	1

The cutting of the core was done using a diamond saw. Half of the cut core was placed in plastic sample bags, and the remaining half left in the core box. For consistency, the same half of core was collected for each sample. Sample intervals were marked with a red grease pencil and a metal tab was stapled into the core box at the beginning of each sample interval as a visual aid to know where the last sample ends and the next sample starts. Another sample tag was placed in the sample bag which was sealed with a plastic bar lock tie and placed into woven rice bags to prepare them for shipping. A third tag was kept with the geologist for records of the sample, in case these need to be looked at again or resampled in the future.

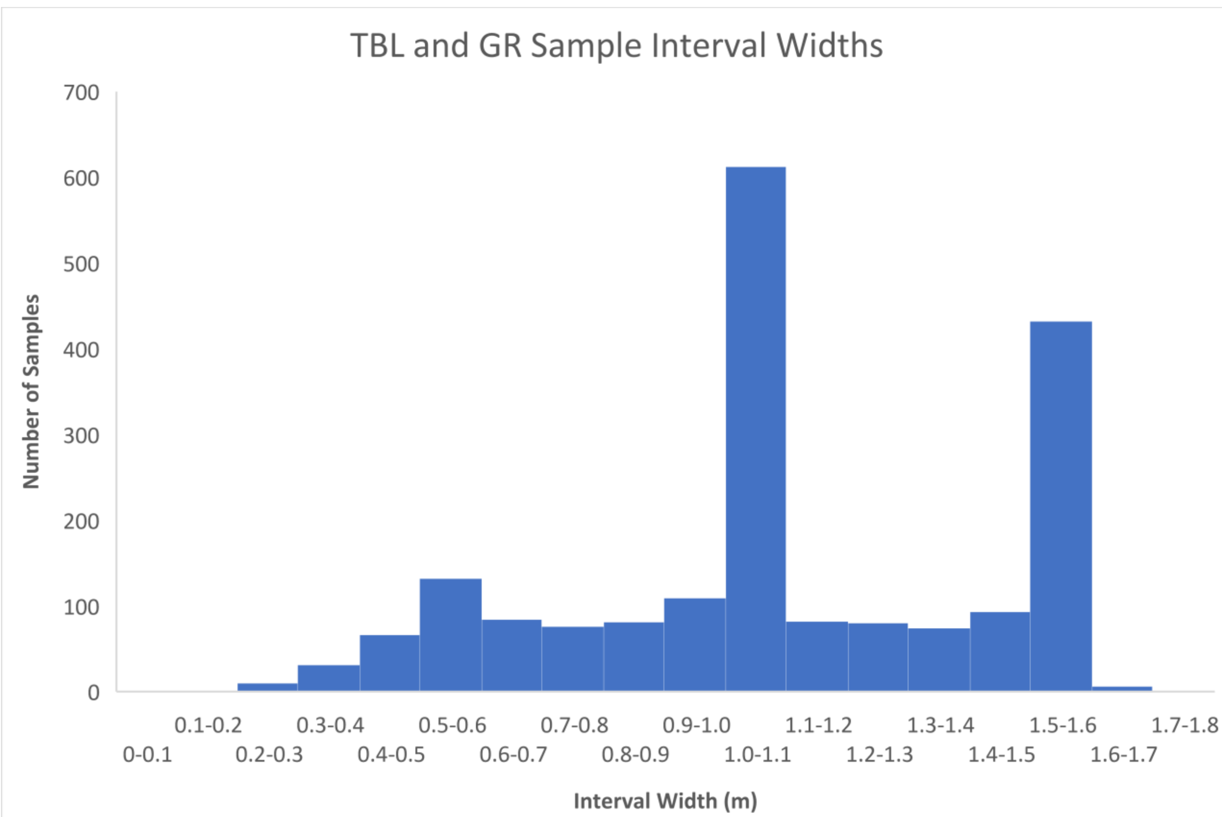


Figure 9-1: Histogram of sample interval width.

9.4 Bulk Density Determinations

Bulk density measurements were made on a continuing basis during both drill programs. Sections of core were trimmed perpendicular to the core axis, and the average length and diameter of each was measured using a caliper. Each core sample was then weighed. These data were used to calculate the average bulk density of 2.71 t/m3 based on 48 individual measurements.

Table 9-2: Summary Statistics for Bulk Density Determinations

TBL Database – Specific Gravity Statistics

Count	37
Minimum	2.59
Maximum	2.83
Range	0.24
Average	2.71
Standard Deviation	0.064
Median	2.72
Mode	2.76

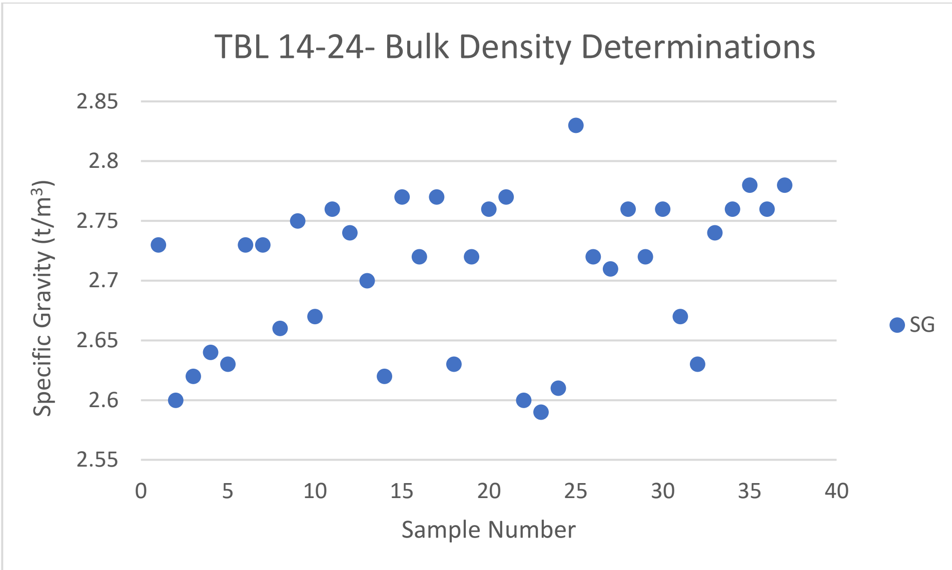


Figure 9-2: Bulk density Determinations in t/m^3.

9.5 Blanks

Certified Reference Blanks were inserted into the sample stream at SRC and SGS for analysis. This was done at a frequency of 1 for every 20 samples. The reasoning behind inserting blanks is that the blanks should not contain any lithium. If lithium is detected, this alerts the person doing the analysis that there is most likely cross-contamination during sample preparation and assaying. This can be due to several factors.

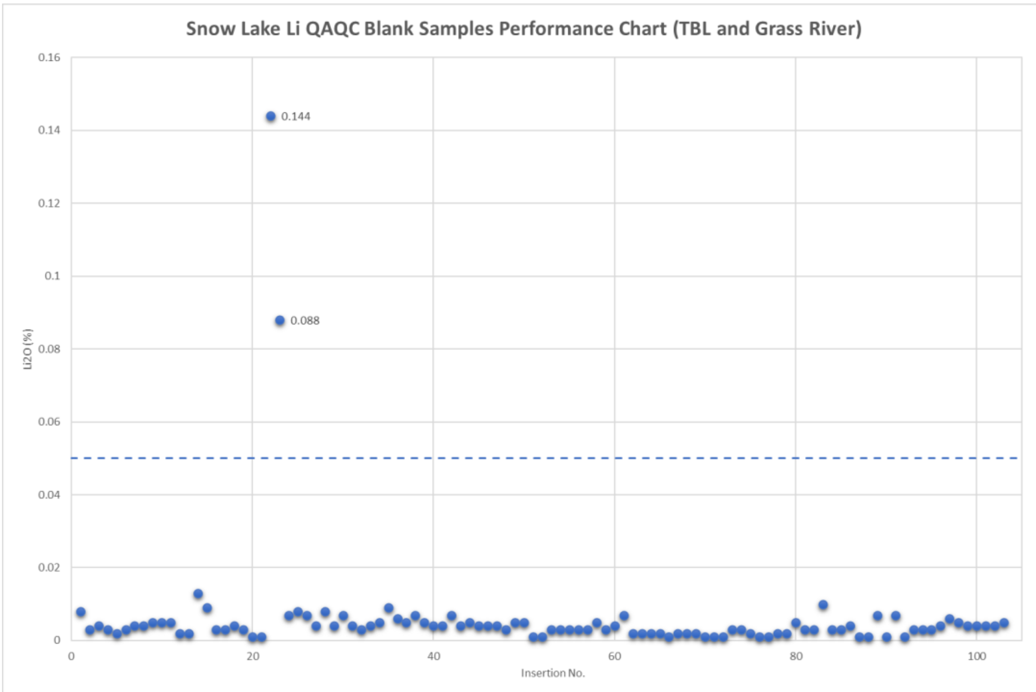


Figure 9-3: Snow Lake Quality Assurance and Quality Control Performance

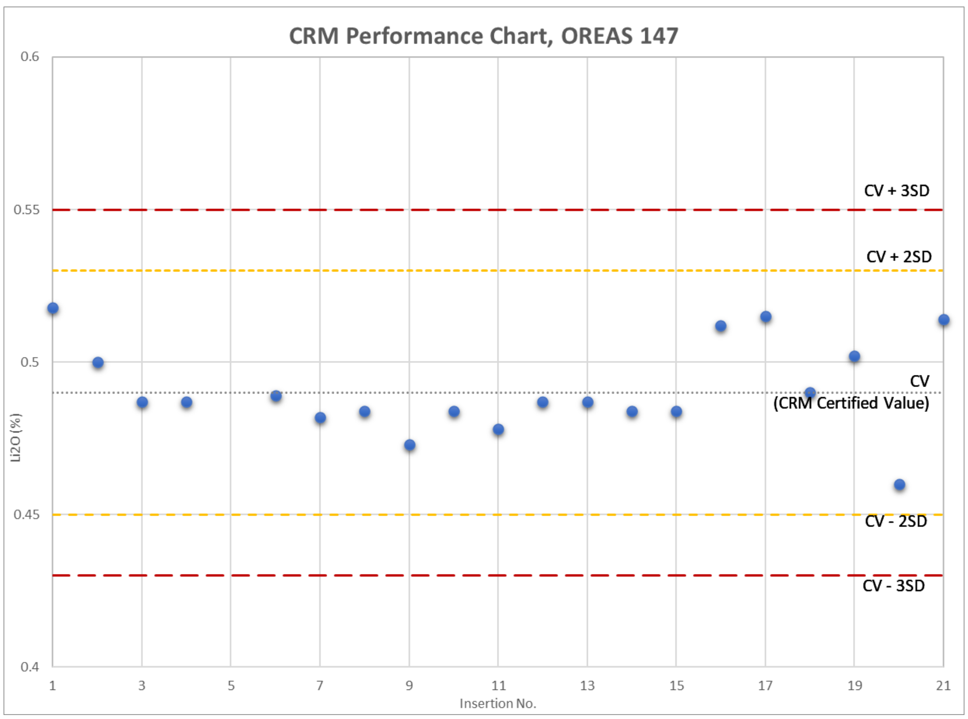
From Figure 9-3, blanks 22 and 23 are shown to have values of 0.144% and 0.088% Li_2O respectively. These blanks are above the acceptance line which is determined by taking the detection limit and multiplying by 10. In the Author's opinion, the blanks are acceptable for this report and support the use of the analytical results for continued interpretation, evaluation, and the resource estimate.

9.6 Certified Reference Materials (Standards)

Standards are used to monitor analytical accuracy and to identify potential problems with specific batches of samples. Four standards were chosen for the analysis and named Oreas 147, 148, 149 and 999. One standard was inserted into the sample stream for every 20 samples taken.

Table 9-3: Certified Lithium Values for Certified Reference Standards

Standard	#	Expected Li_2O		Actual Li_2O		% Of Expected	3 X SD	LL	UL	Lab QC Fails
		Average	SD	Average	SD					
OREAS 147	21	0.488	0.023	0.490	0.015	100.400	0.045	0.430	0.550	0
OREAS 148	76	1.030	0.023	1.040	0.045	100.986	0.136	0.970	1.090	9
OREAS 149	64	2.210	0.064	2.207	0.091	99.849	0.274	2.030	2.390	14
OREAS 199	46	5.760	0.222	5.573	0.850	96.754	2.549	5.100	6.420	1



CERTIFICATE OF ANALYSIS FOR

Pegmatitic Li-Nb-Sn ORE

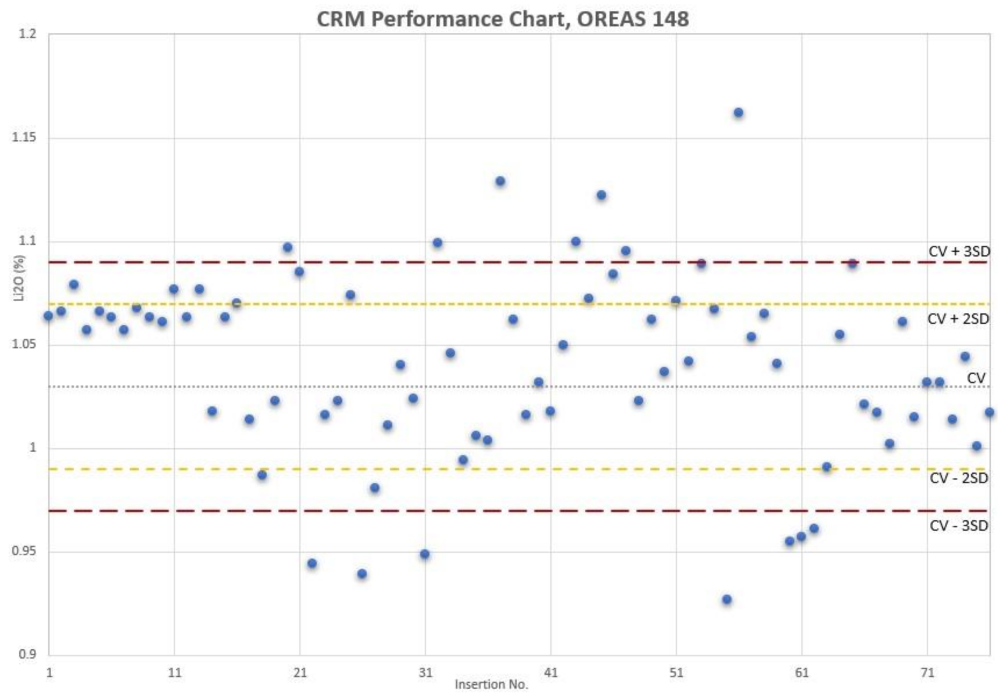
CERTIFIED REFERENCE MATERIAL

OREAS 147

Summary Statistics for Key Analytes.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Peroxide Fusion ICP						
Li, Lithium (wt.%)	0.227	0.011	0.221	0.232	0.221	0.233
Li_2O, Lithium oxide (wt.%)	0.488	0.023	0.477	0.500	0.476	0.501
Nb, Niobium (wt.%)	0.115	0.007	0.111	0.118	0.111	0.119
Sn, Tin (ppm)	699	37	676	723	659	739

When analyzing CRM data, there are two situations that make the sample fail. A sample that has a concentration that is greater than 3 standard deviations from the mean is a failure. Also, two adjacent standards that are greater than two standard deviations from the mean, on the same side of the mean are failures due to bias. With CRM 148, both bias and failures are apparent.



CERTIFICATE OF ANALYSIS FOR

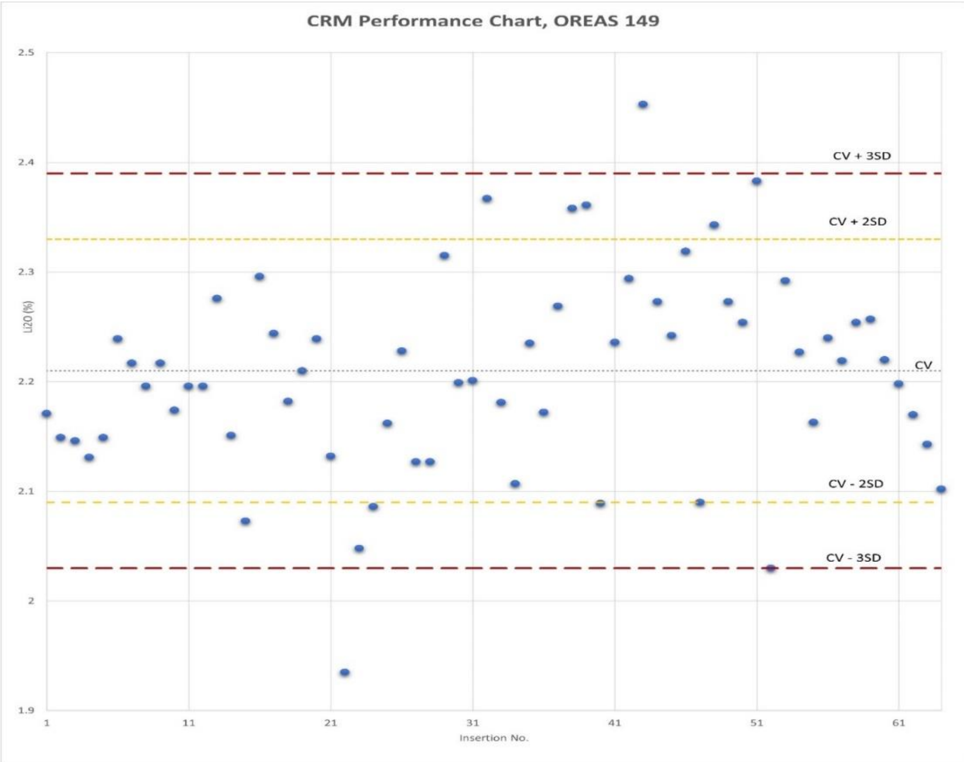
Pegmatitic Li-Nb-Sn ORE

CERTIFIED REFERENCE MATERIAL

OREAS 148

Summary Statistics for Key Analytes.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Peroxide Fusion ICP						
Li, Lithium (wt.%)	0.476	0.011	0.472	0.481	0.462	0.491
Li_2O, Lithium oxide (wt.%)	1.03	0.023	1.02	1.04	0.996	1.06
Nb, Niobium (wt.%)	0.168	0.011	0.161	0.174	0.162	0.174
Sn, Tin (ppm)	1157	80	1108	1206	1100	1215



CERTIFICATE OF ANALYSIS FOR

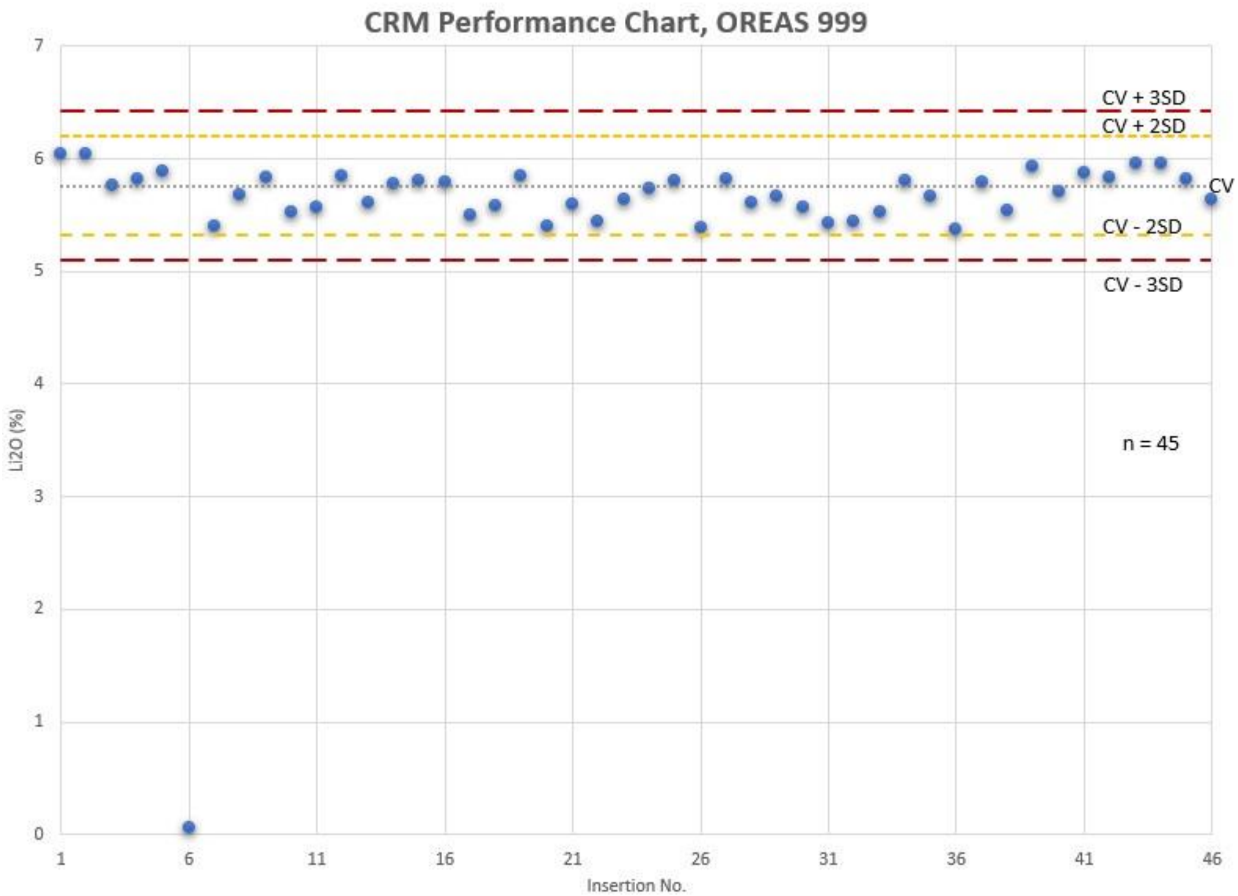
Pegmatitic Li-Nb-Sn ORE

CERTIFIED REFERENCE MATERIAL

OREAS 149

Summary Statistics for Key Analytes.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Peroxide Fusion ICP						
Li, Lithium (wt.%)	1.03	0.030	1.01	1.04	1.00	1.05
Li_2O, Lithium oxide (wt.%)	2.21	0.064	2.18	2.25	2.16	2.27
Nb, Niobium (wt.%)	0.626	0.022	0.611	0.640	0.609	0.642
Sn, Tin (wt.%)	0.329	0.031	0.310	0.348	0.317	0.340



CERTIFICATE OF ANALYSIS FOR

Li Concentrate

(Spodumene Concentrate, Greenbushes, Western Australia)

CERTIFIED REFERENCE MATERIAL

OREAS 999

Summary Statistics for Key Analytes.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Peroxide Fusion ICP						
Li, Lithium (wt.%)	2.67	0.103	2.63	2.72	2.62	2.73
Li_2O, Lithium oxide (wt.%)	5.76	0.222	5.65	5.86	5.63	5.88
4-Acid Digestion						
Li, Lithium (wt.%)	2.65	0.057	2.62	2.68	2.59	2.71
Li_2O, Lithium oxide (wt.%)	5.70	0.122	5.64	5.76	5.58	5.83

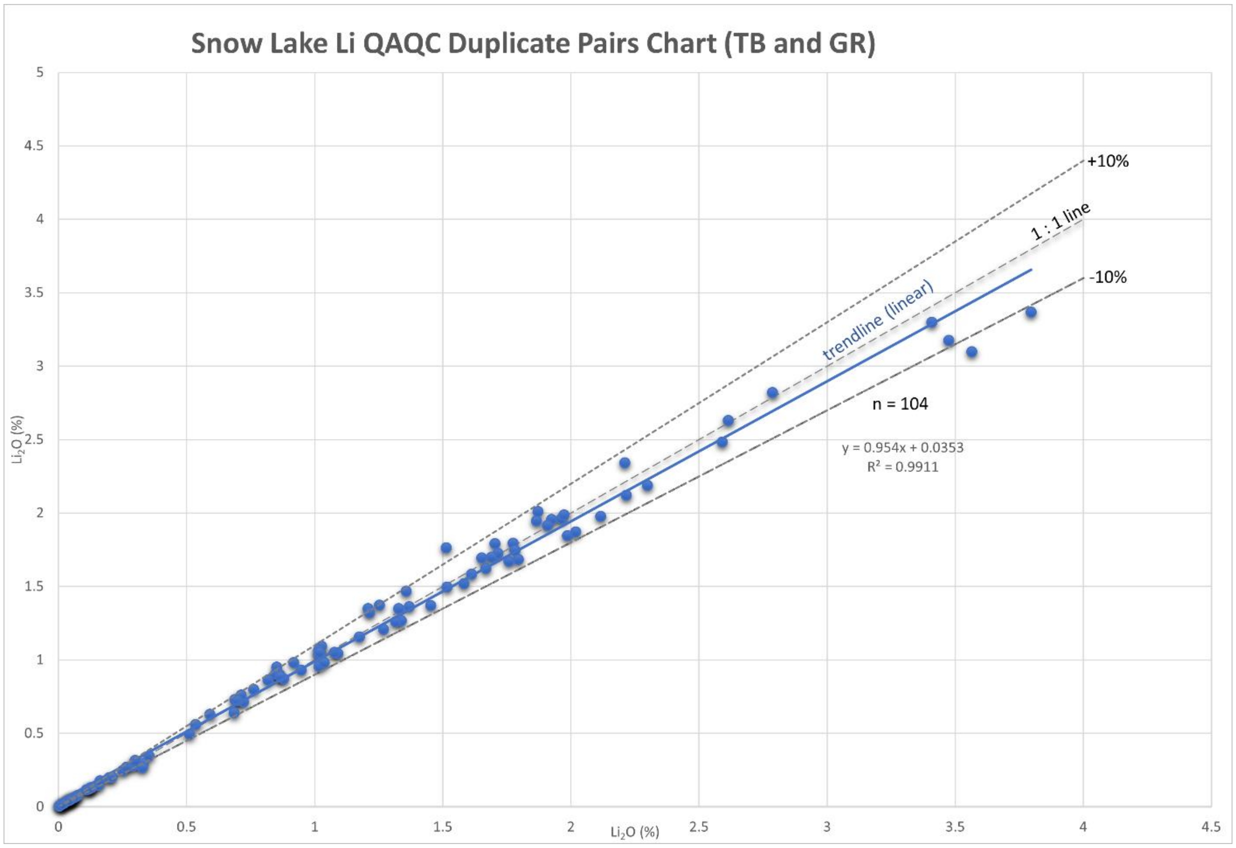
9.7 SRC and SGS Internal Duplicates

Duplicate samples are used to monitor and assess variability of grade as a function of sample homogeneity and laboratory error. In total, 104 duplicates were submitted for the analysis based on a sampling frequency of 1 for every 20 samples.

Table 9-4: Internal duplicates for SRC and SGS laboratories

Item	Original	Duplicate
Count	104	104
Mean	1.042	1.029
Minimum	0.003	0.003
Maximum	3.796	3.336
Range	3.793	3.333
Median	0.935	0.951
Sample variance	0.814	0.748
Standard Deviation	0.902	0.865
Correlation Coefficient	0.988	

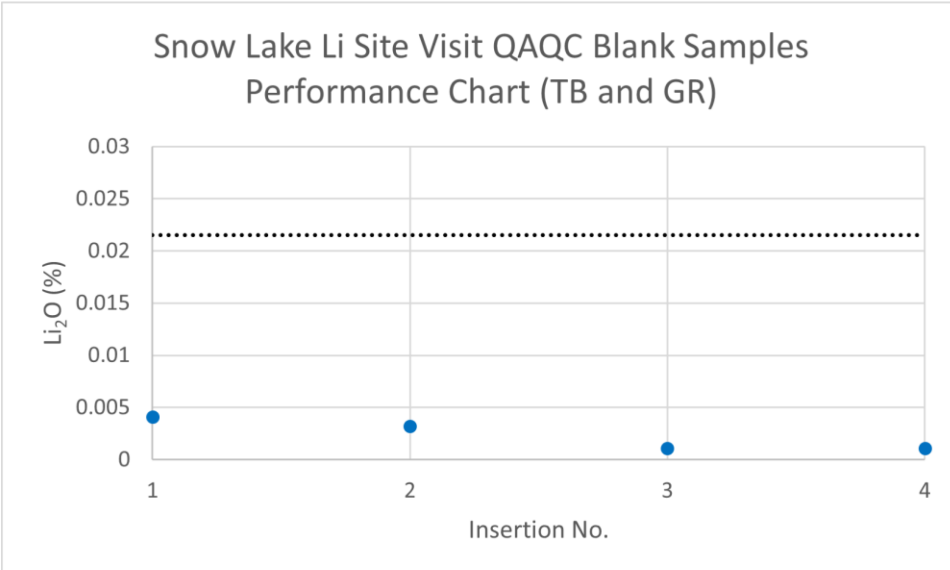
The sample data displays a high correlation coefficient and very close means. It is the author's opinion; the duplicate reject samples indicate that both labs are achieving good analytical precision.



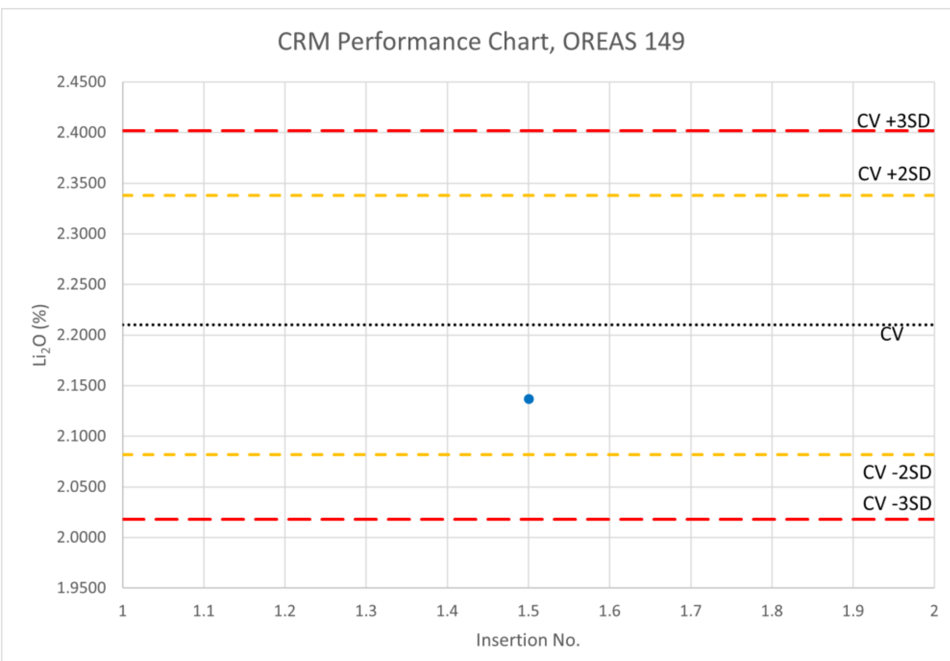
9.8 Qualified Person's Samples from Site Visit

The current Qualified Person took samples while he was on site and are listed in the table below. Samples from TB and GR were re-taken for validation using ¼ core and then sending them to SGS Lakefield for assay preparation.

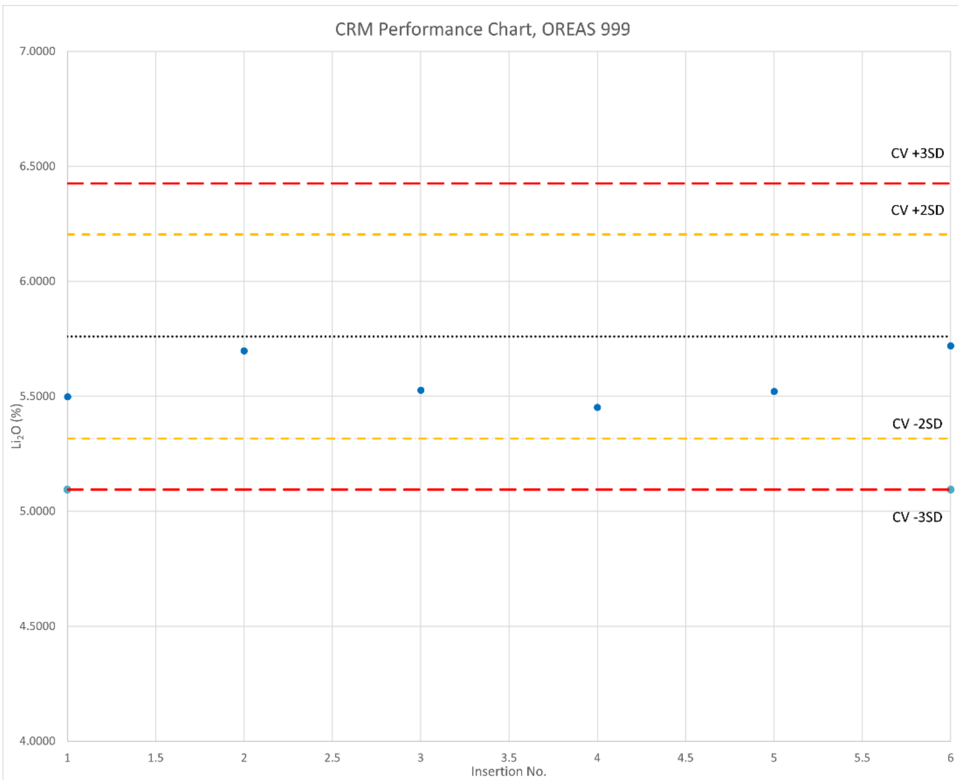
2 sets of blanks were sent to SGS laboratories for analysis. 2 sets of blanks were also inserted internally by the lab to check for their own QAQC standards. Results are shown below.



The data show that all the samples had passed by being below 10 times the detection limit for Li. In the Qualified Person's opinion, the resampling of the blanks is suitable for use on the project indicating that there aren't any contamination issues.

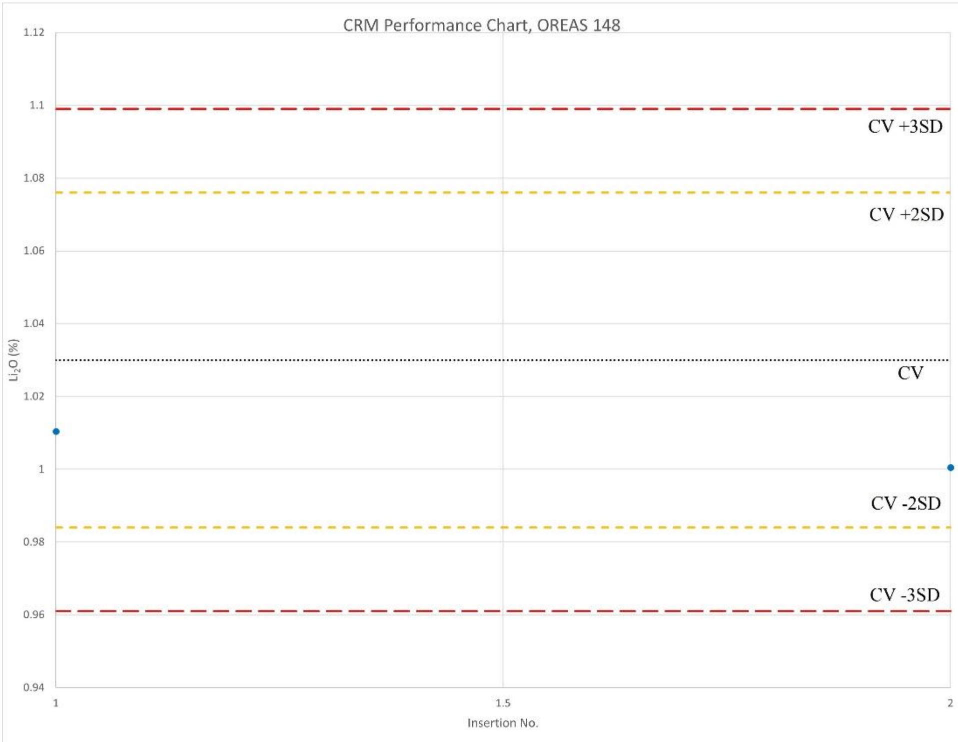


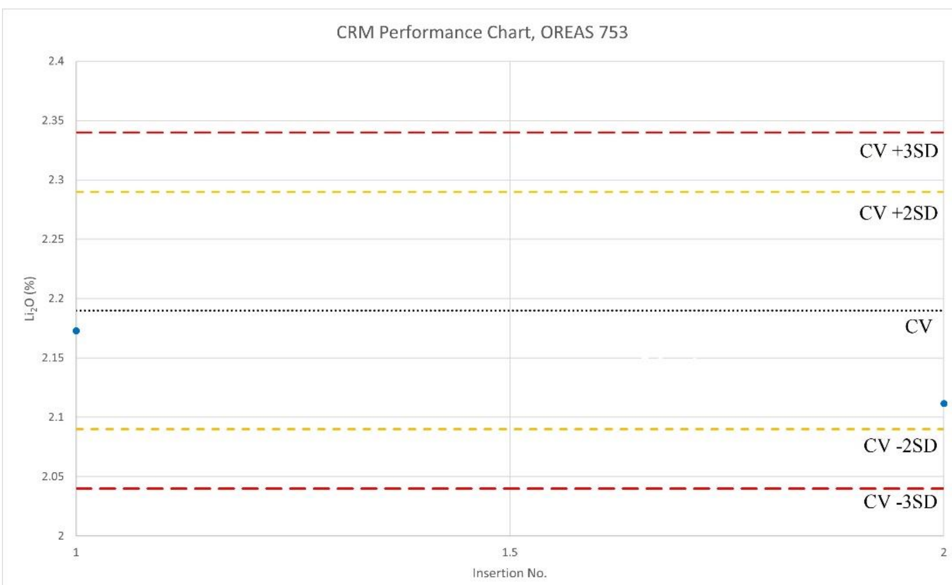
There was only 1 standard available for sampling by the Qualified Person. The standard shows that the sample passed as it is between the median and the median minus two standard deviations.



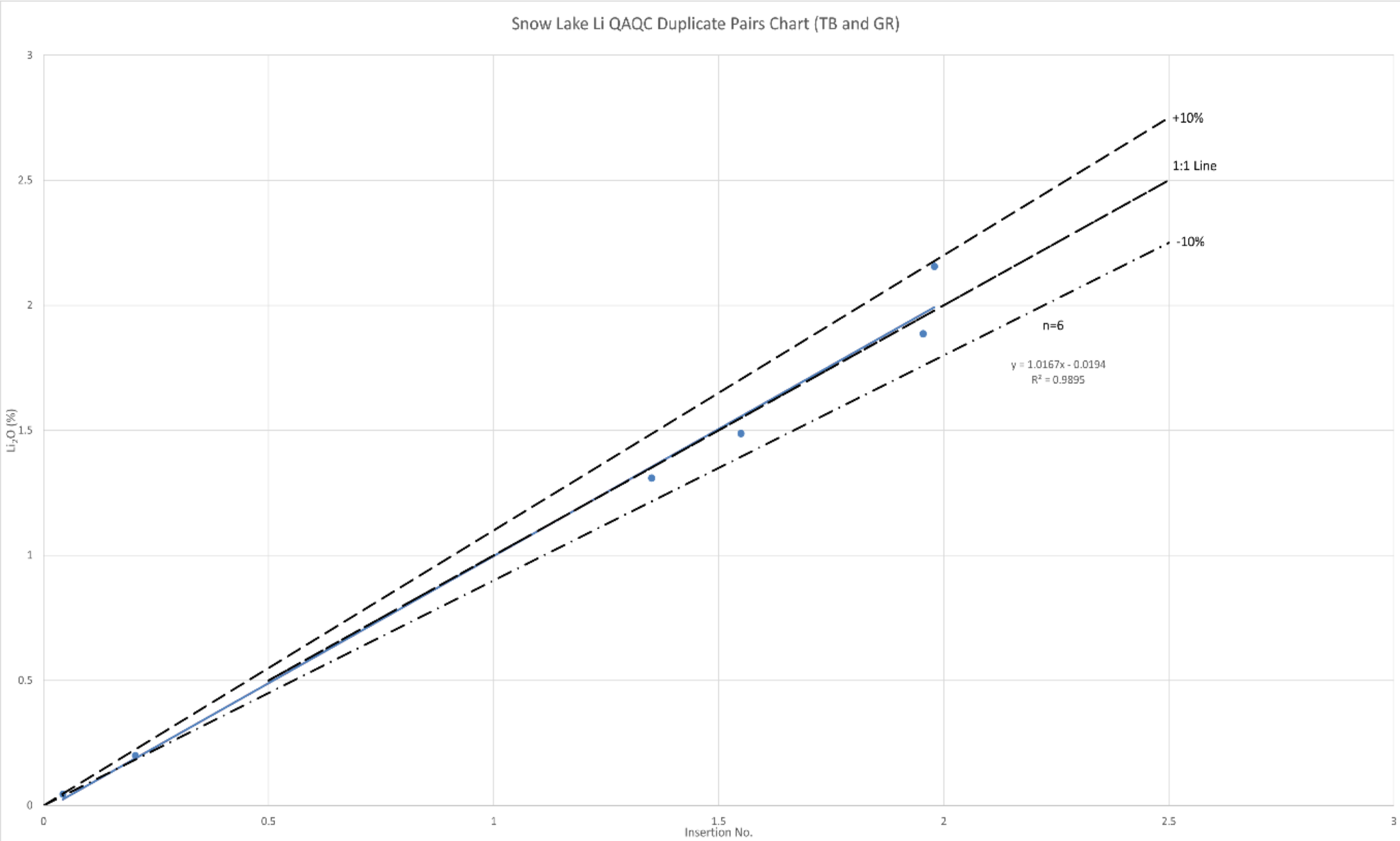
CRM 999 does show some biases; however, the samples have passed and are sufficient for this report.

The lab had also tested their standards for analysis using OREAS 148 and 753 to check for precision and bias. The performance charts are shown below.

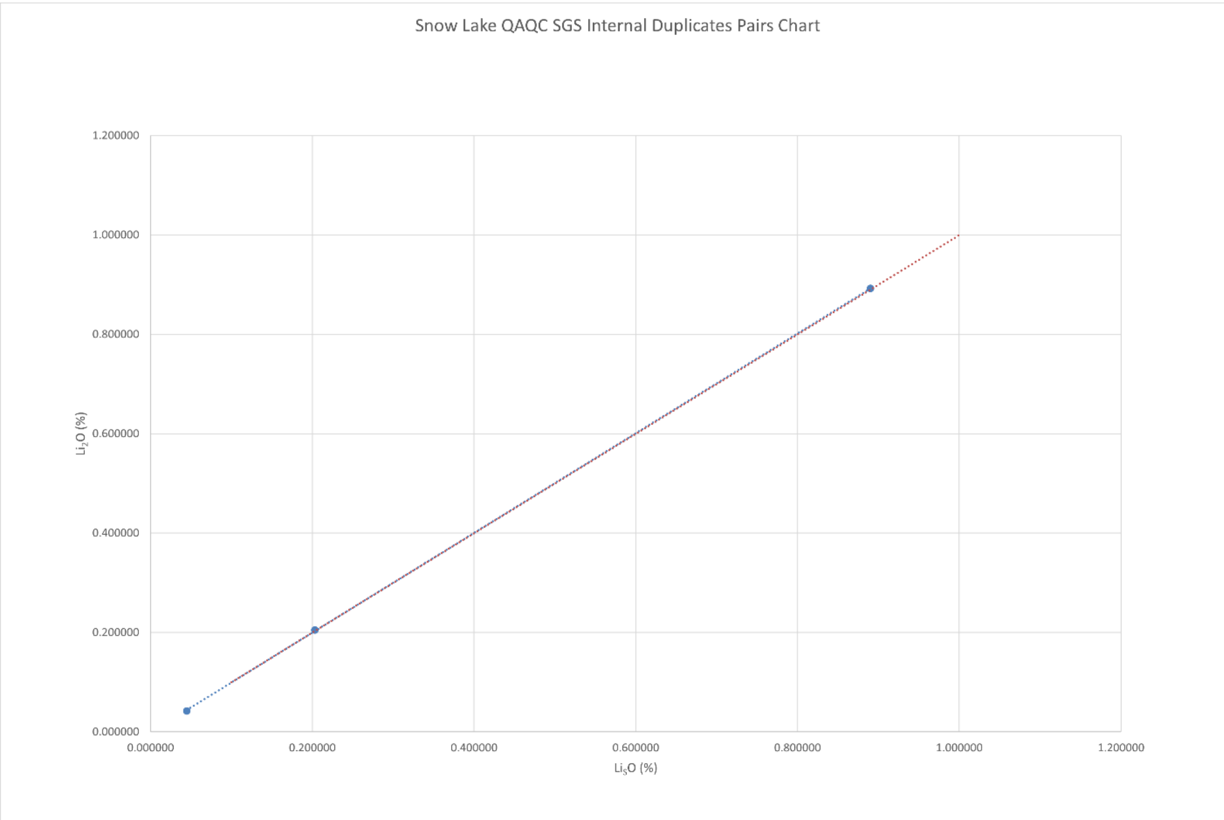




The duplicate pairs that were sent by the Qualified Person to Lakefield for analysis showed a close correlation with the 1:1 trend line within ±10% as an industry accepted standard.



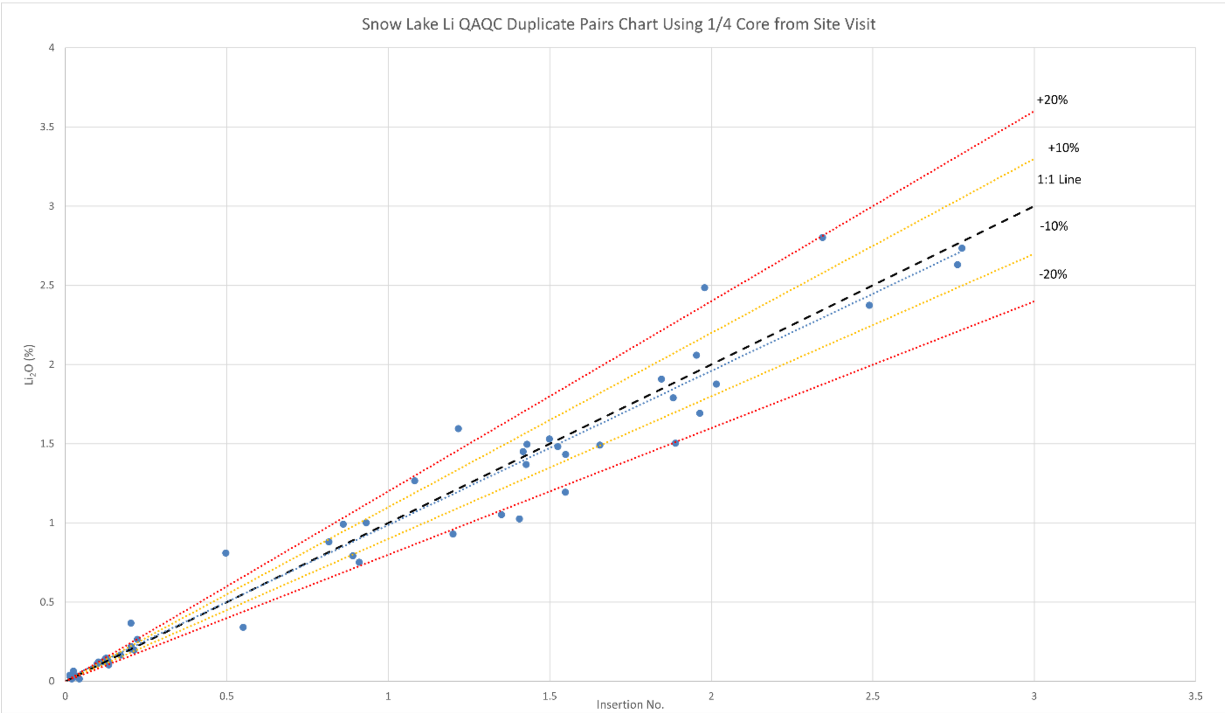
The lab had also re-run some of the samples to check for accuracy of duplicated materials which is shown in the figure below. The trendlines are overlapping showing excellent accuracy between the lab's resampling for duplicates.



The Qualified Person while on site, had taken some of the already cut core and cut it again to produce ¼ core and sent these samples to Lakefield for preparation. The duplicates should follow a 1:1 trendline, however, the Qualified Person has sampled ¼ core.

Variations in grade can also occur due to the large crystal size of the lithium bearing spodumene. The large crystals may have an effect on lithium values if the whole sample doesn't catch an entire crystal, or if half of the core contains more of the crystal than the other half.

Samples that had Li grades that were below cut-off grade were initially included and then filtered out to decrease the variation percentage between ½ and ¼ core. The difference between the samples was calculated to be 20% before leaving out samples that were below cut off grade and 15% after leaving them out, which is shown below.



9.9 Grade Distribution

The lithium grade in the deposits is largely controlled by the presence or absence of spodumene. The highest grade encountered was 5.88% Li2O in DH GRP-014 from 198.22-198.87 m.

9.10 Database Verification

The TBL and GR databases are well structured and complete. The personnel in the core shack maintained a digital library of all hand-written source data sheets (drill logs, core inventory, RQDs, sampling sheets, bulk density),

The Qualified Person performed a random audit of the assay certificates for holes TBL-007 and TBL-031. Hole TBL-007 was analyzed by SRC while hole 31 was assayed by SGS. When the database was compared to the assay certificates, no errors were found.

In the Qualified Person's opinion all drill holes on the TB and GR deposits drilled by Nova, Quantum and Snow Lake Lithium are suitable for this resource estimate, while historic holes were not included. Industry best practices have been observed and followed, and the data sets are current.

9.11 Drill Hole Collar Verification During Site Visit

Drill hole locations for 32 holes were located by the Qualified Person during his site visit and can be found in the appendix section of this report.

Figure 9-4: Photo of drill pad with casing left in and a picket labelled TBL 054

Figure 9-5: Close up view of wooden picket for DH TBL-054 with flagging tape

Figure 9-6: Drill hole location marked by metal flag

9.12 Opinion of the Author

The QP is satisfied with regards to data verification, the database and QAQC protocols that were in place for the project.

It was noted that there was a fair amount of scatter for the Certified Reference Materials especially for OREAS 148 and 149. The standards showed a low to high migrating bias between insertions. This level of error is acceptable for this Initial Assessment. The QP has suggested that a QAQC remediation program to be conducted which is already underway. This remediation program is essential going forward to the pre-feasibility stage.

10. Mineral Processing and Metallurgical Testing

10.1 Thompson Brothers

10.1.1 Metallurgical Testwork

An approximately 150 kg of crushed sample was sent to PMC Laboratory Ltd. The sample was homogenized and split into ~10 kg test charges.

10.1.2 Testwork Results

Received samples were analyzed by semi-quantitative XRD, direct head assays and size-by-size assays. The direct head assay measured 0.54% Li (1.16% Li2O) grade. SQ-XRD results measured 15.4% spodumene corresponding to a lithium grade of 1.23% which is within analytical error of the head grade indicating that spodumene is the sole host of contained Li2O.

10.1.3 Heavy Liquid Separation

Prior to the heavy liquid separation test on the head sample the –500um fraction was screened out and the remaining sample underwent magnetic separation. After screening and magnetic separation 84.9 % of the Li_2O contained within 80% of the mass proceeded to HLS. HLS was effective in concentrating lithium even at coarse crush size of P100 –12.5mm with the highest Li_2O grades of 7% and 6.81% at 3.0 SG and combined 3.2+3.1 SG sinks respectively. Table 10-1 shows the results of the HLS test. Based on the HLS Li_2O distribution the 2.8 to 3.2 SG sinks can be considered the product and 2.8 SG float can be considered the tailings. The result is 10.4% of the mass of HLS feed recovered 57.5% of the Li_2O producing a concentrate grade of 5.27% Li_2O as shown in Table 10-2.

Table 10-1: Heavy Liquid Separation Products

Product	Mass		Assays (%)		Distribution (%)	
	(g)	(%)	Li_2O	Fe_2O_3	Li_2O	Fe_2O_3
-500 µm	1565	19.34	0.69[a]	1.95[a]	14.9	23.2
Magnetics	51.0	0.63	0.34	9.32	0.2	3.6
3.2 + 3.1 SG Sink	21.9	0.27	6.81	1.9	2.0	0.3
3.0 SG Sink	234.1	2.89	7.00	1.46	22.5	2.6
2.9 SG Sink	162.9	2.01	4.93	1.95	11.0	2.4
2.8 SG Sink	255.1	3.15	3.77	1.85	13.2	3.6
2.8 SG Float	5803.7	71.7	0.5	1.45	36.0	64.2
Head (calc)	8094		0.90	1.62	100	100
Head (assay)		100.0	1.16	1.62		

[a]Estimated from Head SxS assays

Table 10-2: Heavy Liquid Composite Products

Combined Products	Mass		Assays (%)		Distribution (%)	
	(g)	(%)	Li_2O	Fe_2O_3	Li_2O	Fe_2O_3
Concentrate						
3.2 to 2.8 Sinks	674.0	10.4	5.27	1.74	57.5	12.2
Tailings						
2.8 SG Float	5803.7	89.60	0.45	1.45	42.5	87.8
Total	6477.7	100.00	61.76	95.88	100.0	100.0

The HLS sink products of SG 2.8 to 3.0 were combined for size-by-size assay with results shown in Table 10-3. The analysis of the HLS tails showed that 85% of the Li_2O in tails reports to the +2360 um fraction suggesting that higher may be achieved by a further reduction in particle size.

Table 10-3: HLS products assay by size fraction

HLS Con						
Size fraction (µm)	Mass		Assays (%)		Distribution (%)	
	(%)	(% Passing)	Li_2O	Fe_2O_3	Li_2O	Fe_2O_3
2360	69.7	30.3	5.15	1.49	65.8	65.1
1180	18.0	12.3	5.92	1.94	19.6	21.9
-1180	12.33	0.0	6.44	1.68	14.58	12.99
Head (calc)			5.44	1.59	100	100

HLS Tails						
Size fraction (µm)	Mass		Assays (%)		Distribution (%)	
	(%)	(% Passing)	Li_2O	Fe_2O_3	Li_2O	Fe_2O_3
2360	72.2	27.8	0.58	1.42	85.2	75.3
1180	15.0	12.8	0.32	1.31	9.8	14.4
-1180	12.8	0.0	0.19	1.10	5.01	10.29
Head (calc)			0.49	1.36	100	100

Modal Mineralogy and Liberation Analysis if HLS products

The mineralogical analysis of the HLS fractions is shown in Table 10-4. The spodumene grade increases with decreasing size in the sinks fraction and decreases with decreasing size in the float fraction.

Table 10-4: Sink/Float Mineralogy by size fraction

Mineral wt.%	SINK FRACTION				FLOAT FRACTION			
	+2.36 mm	+1.18 mm	-1.18 mm	Head	+2.36 mm	+1.18 mm	-1.18 mm	Head
Spodumene	65.2	75.3	81.4	69.0	6.6	3.5	2.1	5.6
Quartz	12.6	8.3	5.0	10.9	33.3	37.7	42.2	35.1
Microcline	3.8	2.9	2.6	3.5	6.0	11.2	14.6	7.9
Albite	6.3	4.9	3.2	5.7	24.1	35.6	31.5	26.8
Plagioclase	0.7	0.4	0.3	0.6	2.5	2.1	2.1	2.4
Sericite/Muscovite	4.2	2.1	2.7	3.6	21.4	6.0	4.8	17.0
Mafic silicates	2.5	2.3	1.6	2.3	2.8	2.8	1.8	2.7
Chlorite minerals	0.3	0.4	0.4	0.3	0.5	0.3	0.3	0.4
Schorl	0.0	0.2	0.2	0.1	1.4	0.3	0.2	1.1
Apatite	0.5	0.1	0.6	0.4	0.3	0.1	0.0	0.2
Na-beryl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbonates	2.5	0.8	0.4	1.9	0.7	0.3	0.2	0.6
Fe&Ti Oxides	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sulphides	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Other minerals	0.1	0.3	0.0	0.2	0.0	0.0	0.0	0.0
Other silicates	1.3	2.0	1.7	1.5	0.3	0.3	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The liberation profiles for spodumene in the HLS Sink and Float fractions are shown in Figure 10-1 and Figure 10-2

In the sinks only 58% of the spodumene in the +1.18mm fraction meets the target 6% Li_2O grade. In the –1.18mm spodumene particles, 70% of contained spodumene reports as meeting desired grade. Particles larger than 6mm were absent from the HLS Sink concentrate, indicating that particles coarser than 6mm had insufficient spodumene to increase overall density enough to allow the particle to sink.

In the float product, target grade particles represent only 25% of contained spodumene in the +1.18 mm fraction, and 70% in the – 1.18 mm fraction.

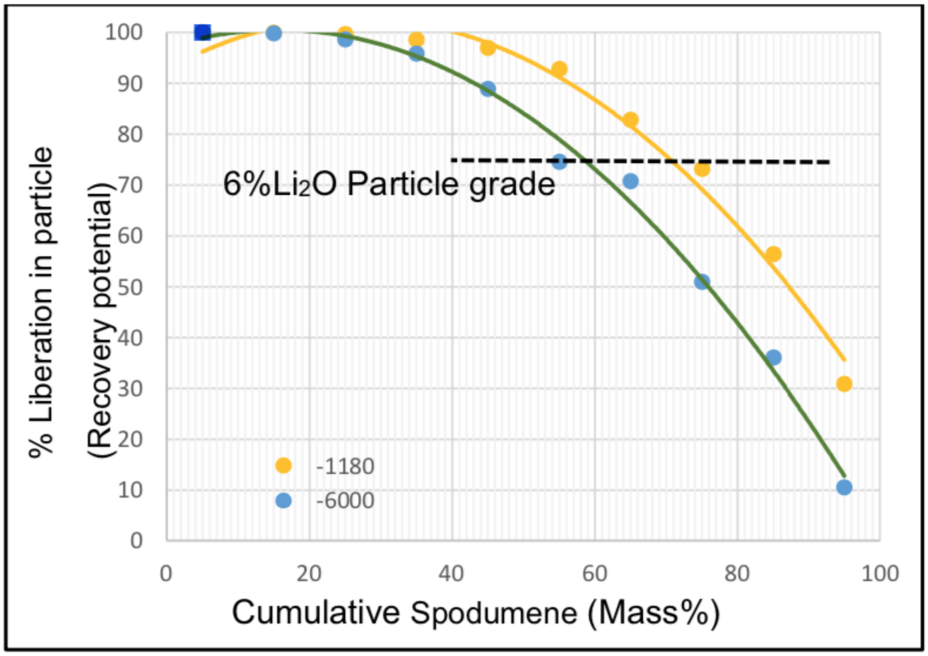


Figure 10-1: Liberation profile for HLS sinks

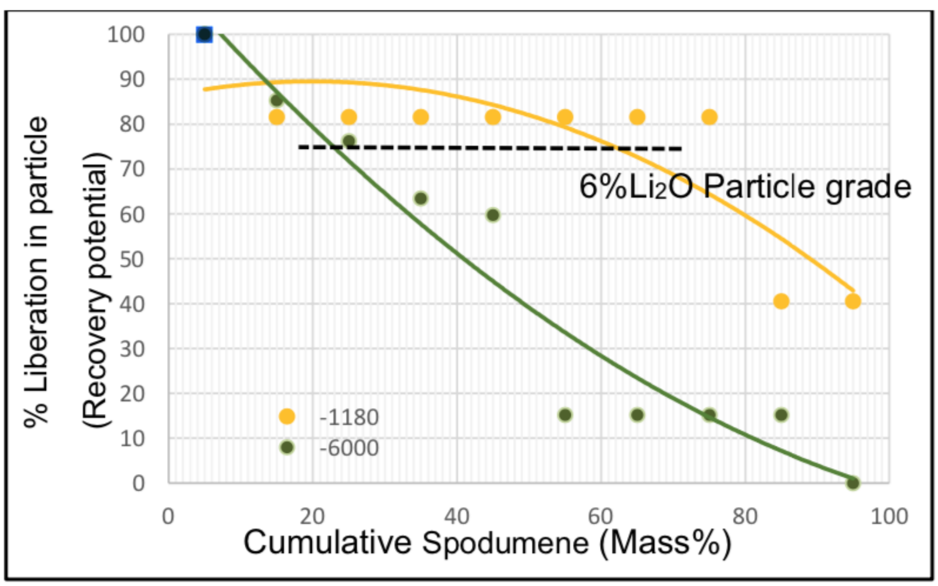


Figure 10-2: Liberation profile for HLS floats

10.1.4 Flotation

10kg samples were ground to produce P80 sizes of 425 um and 212 um respectively. The ground slurry was wet screened at 38 um to produce a +38 um fraction that was sent for magnetic separation. The -38 um fraction was discarded as slime. The non-magnetic fractions were split into 1 kg charges to be used as flotation feed.

Table 10-5 outlines four different conditions that were tested on the non-magnetic fractions of each grind size.

Table 10-5: Rougher flotation test parameters

Size	Test #			
425 micron	F1	F2	F3	F4
212 micron	F5	F6	F7	F8
	Condition 1	Condition 2	Condition 3	Condition 4
Mica Collector	Aero 3030C	Aero 3030C	Aero 3030C	Aero 3030C
Dosage	200- 250 g/ton	200- 250 g/ton	200- 250 g/ton	200- 250 g/ton
Mica Frother	Pine Oil	Pine Oil	Pine Oil	Pine Oil
pH	4.0	4.0	4.0	4.0
pH modifier	H2SO4	H2SO4	H2SO4	H2SO4
Cond Time min	4	4	4	4
Scrubbing+Deslime	pH 11	pH 11	pH 11	pH 11
Spo Collector 1	Aero 727	Aero 727	Aero 727	Aero 727
Collector 1 Dosage	500-800 g/t	500-800 g/t	500-800 g/t	500-800 g/t
Cond Time min	8	8	8	8
Spo Collector 2	NA	Aero 845	NA	Aero 845
Collector 2 Dosage	NA	100-160 g/t	NA	100-160 g/t
Cond Time min	NA	1	NA	1
Spo pH	7.5	7.5	7.5	7.5
pH modifier	Lime	Lime	NaOH	NaOH
Spo Frother	Pine Oil	Pine Oil	Pine Oil	Pine Oil

Table 10-6 and Figure 10-3 summarizes the Li_2O recovery from the eight rougher flotation tests performed. Tests F1 to F4 with a grind size of P80 427 um show poor performance compared to the tests of F5 to F8 with a particle size P80 of 237 um. Tests that used NaOh as a pH modifier outperformed lime, while using Aero 845 as a secondary collector. Overall, test F7 and produced the highest Li_2O recovery at 74.0%. Test F7 was used as the reference for rougher optimization tests (F9-F10).

Table 10-6: Overall recoveries of Li_2O from rougher flotation tests

Test	Cumulative Li2O Recovery %
F1	26.92
F2	10.35
F3	12.69
F4	11.57
F5	49.23
F6	21.73
F7	74.03
F8	53.64

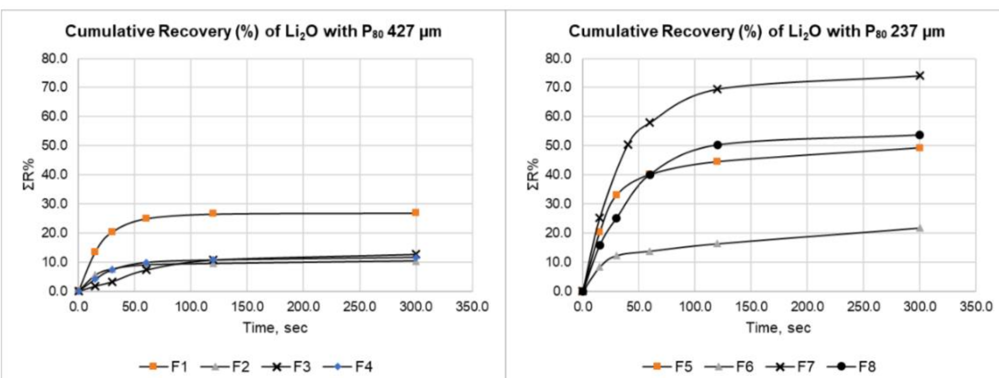


Figure 10-3: Kinetic rougher flotation cumulative recovery curves

Collector dosages were increased for tests F9 and F10, using F7 as a base. Table 10-7 shows a summary of the effects of collector dosage on lithium recovery. Overdosing on the collector shows a negative effect on recovery.

Table 10-7: Rougher optimization tests

	Test #		
	F7	F9	F10
	Condition 1	Condition 2	Condition 3
Spo Collector	Aero 727	Aero 727	Aero 727
Collector 1 Dosage	280 g/t	600 g/t	700 g/t
Dispersant	NA	NA	Cyquest 3223
Dispersant Dosage	NA	NA	120 g/t
Li_2O Recovery	74.0%	34.4%	51.3%

Cleaner Flotation

Table 10-8 presents the three conditions implemented to test the effect of the dispersant, Cyquest 3223, and the impact of varying dosage of primary collector, Aero 727. Tests determined that using a high dosage of Aero 727 had a negative impact on lithium recovery. Introduction of a dispersant also had a detrimental effect on lithium recovery.

Table 10-8: Cleaner Flotation Trials

	Test #		
	F11	F12	F13
	Condition 1	Condition 2	Condition 3
Spo 1 Collector	Aero 727	Aero 727	Aero 727
Collector 1 Dosage	800 g/t	1100 g/t	1100 g/t
Dispersant	Cyquest 3223	NA	Cyquest 3223
Dispersant Dosage	120 g/t	NA	120 g/t
Li2O Recovery%	48.3	35.6	26.7
Li2O %	4.1	3.9	3.8

Locked Cycle Test

A six-cycle Locked Cycle Test was conducted based on the findings of previous test work. Table 10-9 shows the results of the test. The 1st stage cleaner flotation produced a concentrate of 5.82% Li_2O at 68.3% recovery, the 2nd stage produced 6.48% Li_2O at 52.8% recovery and the 3rd stage cleaner produced a concentrate of 7.24% Li_2O with a 30.6% recovery. It is expected that a higher-grade concentrate could be produced if desliming were done at 53 um instead of 38 um.

Table 10-9: Locked Cycle Test Results

Combined Products	Weight		Assays %				Distribution %			
	g	%	Li_2O	Fe_2O_3	P_2O_5	TiO_2	Li_2O	Fe_2O_3	P_2O_5	TiO_2
3rdnd Spo Cleaner Con	102.6	8.0	7.24	3.4	0.5	0.11	30.6	17.5	43.2	14.4
2nd Spo Cleaner Con	197.8	15.4	6.48	3.0	0.3	0.1	52.8	30.6	53.0	25.4
1st Spo Cleaner Con	284.8	22.1	5.82	2.9	0.3	0.1	68.3	41.9	58.6	36.6
Rougher Concentrate	440.6	34.2	4.67	2.6	0.2	0.1	84.8	57.3	66.0	54.5
Rougher Tailings + Mica Con+ Scav Con	847.9	65.8	0.44	1.0	0.1	0.0	15.2	42.7	34.0	45.5

Modal Mineralogy and Liberation Analysis

Test F8 showed a poorer performance compared to F7, with losses attributed to coarse liberated spodumene. A liberation profile is shown in Figure 10-4. Concentrate liberation is consistent but particles over 90% liberated account for 54% of F7 and 64% of F8 tails.

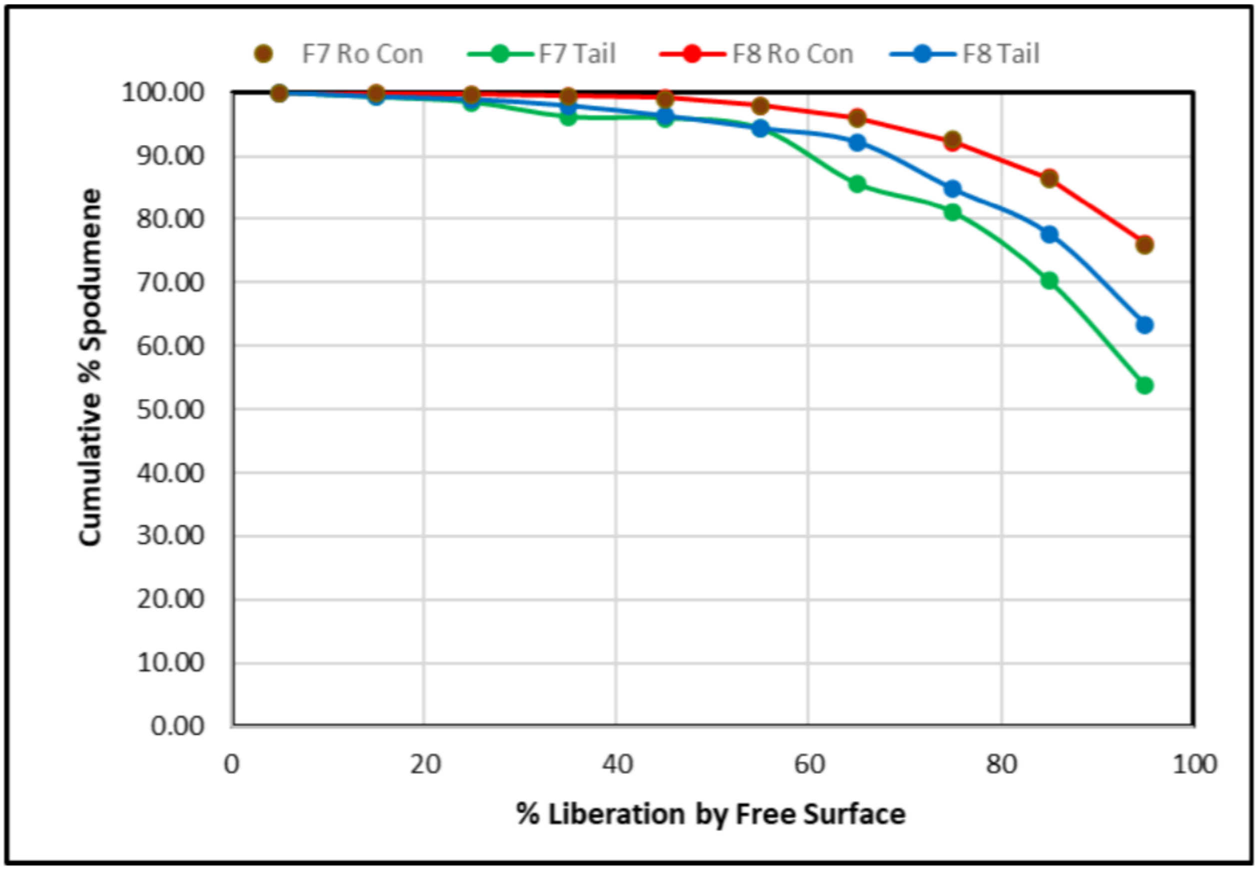


Figure 10-4: Spodumene liberation profiles for tests F7 and F8

Table 10-10 shows that in LCT cleaner tailings mineralogy 98% of Li reports to the +106um size fraction.

Table 10-10: LCT6 final tailings mineralogy and reconciliation

Mineral Mass %	-75	-106/+75	+106	Head
Spodumene	0.38	0.55	6.87	**5.22**
Quartz	35.96	42.47	41.42	**40.86**
Microcline	12.10	11.81	9.57	**10.18**
Albite	32.69	38.13	36.32	**36.10**
Plagioclase	3.18	2.80	1.90	**2.18**
Sericite/Muscovite	14.60	3.59	2.37	**4.08**
Mafic silicates	0.18	0.20	0.95	**0.75**
Chlorite minerals	0.09	0.03	0.33	**0.26**
Schorl/tourmaline	0.02	0.02	0.03	**0.03**
Apatite	0.01	0.01	0.01	**0.01**
Carbonates	0.33	0.24	0.11	**0.15**
Fe&Ti Oxides	0.10	0.02	0.02	**0.03**
Sulphides	0.14	0.06	0.04	**0.06**
Other minerals	0.02	0.01	0.02	**0.01**
Other silicates	0.01	0.05	0.06	**0.05**
Total	**99.80**	**100.00**	**100.00**	**99.98**
Mass Sample	12.66	13.11	74.23	**100.00**
Calc Li2O Grade	0.031	0.044	0.557	0.423
Direct Head				**0.410**
Li-Distr.%	0.45	1.38	98.17	0.42

10.2 Grass River

10.2.1 Metallurgical Testwork

A total of 1,163kg of samples: 962 kg of pegmatite and 201 kg of waste rock in the form of full drill core were sent to SGS Lakefield for a scoping level metallurgical test program. The samples were crushed and screened at ½''. The oversize +½'' fraction was separated and sent for ore sorter testing to Steinert. The – ½'' fraction was stored for further testwork.

The sorted product was received from Steinert and the material was submitted for lithium assay and WRA (whole rock analysis).

To create the composite for metallurgical testwork, the sorter product was mixed with the fine pegmatite and the waste samples. The fine waste material was mixed with the fine pegmatite to resemble the grade of the fine fraction. The weight fraction of each sample in the main composite is shown in Table 10-11.

Table 10-11: Weight fractions of the main composite

Sample	Weight (kg)
Ore Sorter Product	731
Fine Pegmatite Fraction (-½”)	169
Fine Waste Fraction (-½”)	10.5
Composite Total	910.5

Figure 10-5 shows the sample preparation flowsheet. An 80 kg sample was taken from the main composite with the rest stored for future testwork. From this subsample, 20 kg of –12.7 mm material was stored for HLS testwork and 15kg were submitted for Bond rod mill grindability testing. The remaining 45kg of material was crushed to P100 of –9.5 mm. From the –9.5 mm material 10 kg was screened to remove the –0.85 mm material. The remaining –9.5 mm material was further crushed to P100 of –6.3 mm. From the –6.3 mm material 10 kg was screened to remove the –0.85 mm material. The +0.84 to –9.5 mm and +0.85 to –6. 3mm material was sent for Heavy liquid separation (HLS) tests. The remaining –6.3mm material was crushed to 3.3 mm and 10 kg of this material went for Bond Work Index tests. The leftover 15 kg of material was crushed to 1.7 mm and subsampled for lithium assay and whole rock analysis (WRA).

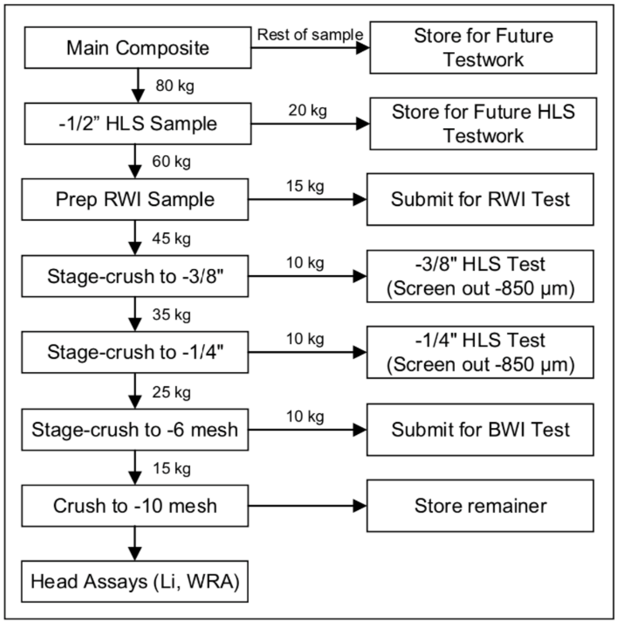


Figure 10-5: Sample Preparation Flowsheet

10.2.2 Testwork Results

10.2.2.1 Ore Sorting Results

Ore sorting proved to be particularly effective for this deposit. The sorted product graded 1.72% Li_2O, with 96.8% of the lithium contained in 80.3% of the mass. In addition, it was effective in eliminating Fe_2O_3 from the product stream. The product contained 0.68% Fe_2O_3, while the waste contained 8.53%. The assayed percentages of the ore sorter product and waste are shown in Table 10-12.

Table 10-12:Ore sorting results and assays

Sample ID	Weight		Assay %															
	(kg)	(%)	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	Sum
Ore Sorter Product	761	80.3	0.80	1.72	73.2	17.0	0.68	0.16	0.33	4.50	1.46	0.02	0.13	0.06	< 0.01	< 0.01	0.96	98.5
Ore Sorter Waste	187	19.7	0.11	0.23	60.1	16.0	8.53	1.89	5.08	2.96	2.45	0.87	0.24	0.14	0.01	0.02	1.07	99.4
Calculated Head	948	100	0.66	1.43	70.6	16.8	2.23	0.50	1.27	4.20	1.66	0.19	0.15	0.08	0.00	0.00	0.98	98.7

Sample ID	Distribution %										
	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	TiO_2	P_2O_5	MnO
Ore Sorter Product	96.8	83.2	81.2	24.5	25.6	20.9	86.1	70.8	8.6	69.1	63.0
Ore Sorter Waste	3.2	16.8	18.8	75.5	74.4	79.1	13.9	29.2	91.4	30.9	37.0
Calculated Head	100	100	100	100	100	100	100	100	100	100	100

10.2.2.2 XRD Mineralogy Analysis

Table 10-13 shows the results of a semi-quantitative XRD mineralogy analysis that was conducted on the main composite sample.

Table 10-13: Table of minerals from XRD analysis

Mineral	Composition	Wt %
Albite	$NaAlSi_3O_8$	39
Quartz	SiO_2	28.1
Spodumene	$LiAlSi_2O_6$	17.9
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$	6.5
Microcline	$KAlSi_3O_8$	5.5
Clinochlore	$(Fe,Mg)_5Al(Si_3Al)O_{10}(OH)_8$	1.8
Diopside	$CaMgSi_2O_6$	1.2
Total		100

10.2.2.3 Grindability Testing

Bond Abrasion testing was performed on the Main Composite material between +12.7 m and -19.1 mm. The Abrasion Index (AI) of the composite was 0.642g.

Bond Rod Mill Grindability test was conducted on the composite sample -12.7 mm + 1.18 mm. F80 and P80 sizes were 8,961 µm and 924 µm, respectively. The calculated Bond Rod Mill Work Index (RWI) was 13.8 kWh/t.

Bond Ball Mill Grindability test was performed on the composite sample -2.2 mm/+300 um. The F80 and P80 sizes were 2,445 um and 250 um, respectively. The Bond Ball Mill Work Index (BWI) of the composite sample was 16.4 kWh/t.

Table 10-14 gives a summary of the grindability test results.

Table 10-14: summary of the grindability tests.

Test	Value	Unit
Abrasion Index (AI)	0.642	g
Bond Rod Mill Work Index (RWI)	13.8	kWh/t
Bond Ball Mill Work Index (BWI)	16.4	kWh/t

10.2.2.4 Heavy Liquid Separation

The Heavy Liquid Separation test provides the baseline for expected dense media separation performance. Two 10 kg samples of –6.3/+0.85 mm and –9.5/+0.85 mm size fractions were submitted for testwork. The samples were immersed in a liquid comprised of methylene iodide diluted with acetone to target liquid specific gravities (SG) in the range of 2.6 to 3.0. The sink fraction of the particles was removed, and the float fraction successively repassed at lower SGs. The resulting sink products as well as one float product and the –0.85 mm size fraction were submitted for WRA. Dry magnetic separation was performed on SG < 2.8 sink products to lower the iron grade and the resulting non-magnetic and magnetic products were submitted for WRA and lithium assay.

Magnetic Separation and HLS Testwork on the -6.3 mm/+0.85 mm Fraction

Table 10-15, Table 10-16 and Table 10-17 show the magnetic separation results. Magnetic separation was very effective in removing iron, with the separation products grading 4.1 to 15.1% Fe_2O_3 and a lithium loss of less than 0.4%. Magnetic separation was effective in rejecting iron-bearing gangue, achieving a combined sinks product contained less than 1% Fe_2O_3 after magnetic separation (Figure 10-6). The Li_2O grade of the HLS sinks products decreased gradually from SG of 3.00 to 2.80, however at SG of 2.70 there was a significant drop in the Li_2O grade from 5.75%

to 3.75% Li_2O. The steep reduction of Li_2O grade was a result of a 12% higher mass pull in the SG 2.70 sink than the SG 2.80 sink. The results of the HLS test with the –6.3/+0.85 mm fraction show that a cut-point SG of 2.82 can be used to produce a concentrate grading >6.0% Li_2O and <1.0% Fe_2O_3 with a recovery of 70.5% (that number is copied from lab data but varies from the table data... doublecheck that).

Table 10-15:Magnetic separation products results.

		Assay, %		Distribution, %	
	Wt %	Li_2O	Fe_2O_3	Li	Fe_2O_3
SG 3.00 Sink Mag	0.6	0.84	15.1	0.3	10.3
SG 2.95 Sink Mag	0.4	1.08	11.8	0.3	5.1
SG 2.90 Sink Mag	0.3	1.01	9.57	0.2	3.4
SG 2.85 Sink Mag	0.6	1.03	6.31	0.4	4.2
SG 2.80 Sink Mag	1.0	0.52	4.05	0.4	4.7

Table 10-16: Combined Sink Products Results Before Magnetic Separation

Combined HLS Products	HL SG	Weight		Assays (%)		Distribution (%)	
	g/cm^3	g	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
HLS Sink 3.00 SG	3.00	1211	15.2	6.69	1.49	67.6	26.1
HLS Sink 2.95 SG	2.95	1456	18.3	6.41	1.62	77.8	34.2
HLS Sink 2.90 SG	2.90	1592	20.0	6.17	1.71	81.9	39.4
HLS Sink 2.85 SG	2.85	1758	22.1	5.85	1.78	85.7	45.2
HLS Sink 2.80 SG	2.80	2056	25.8	5.20	1.75	89.2	52.1
HLS Sink 2.70 SG	2.70	3269	41.1	3.54	1.53	96.6	72.5
HLS Sink 2.65 SG	2.65	3594	45.1	3.27	1.46	97.9	76.1
HLS Sink 2.60 SG	2.60	7359	92.4	1.62	0.90	99.7	96.2

Table 10-17: Combined Sink Products Results After Magnetic Separation

Combined HLS Products	HL SG	Weight		Assays (%)		Distribution (%)	
	g/cm^3	g	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
HLS Sink 3.00 SG	3.00	1164	14.6	6.93	0.94	67.3	15.8
HLS Sink 2.95 SG	2.95	1379	17.3	6.71	0.95	77.2	18.9
HLS Sink 2.90 SG	2.90	1491	18.7	6.53	0.96	81.1	20.7
HLS Sink 2.85 SG	2.85	1611	20.2	6.30	0.96	84.6	22.3
HLS Sink 2.80 SG	2.80	1829	23.0	5.75	0.93	87.6	24.5
HLS Sink 2.70 SG	2.70	3042	38.2	3.75	1.02	95.0	44.9
HLS Sink 2.65 SG	2.65	3367	42.3	3.43	0.99	96.4	48.5
HLS Sink 2.60 SG	2.60	7132	89.6	1.65	0.66	98.1	68.6

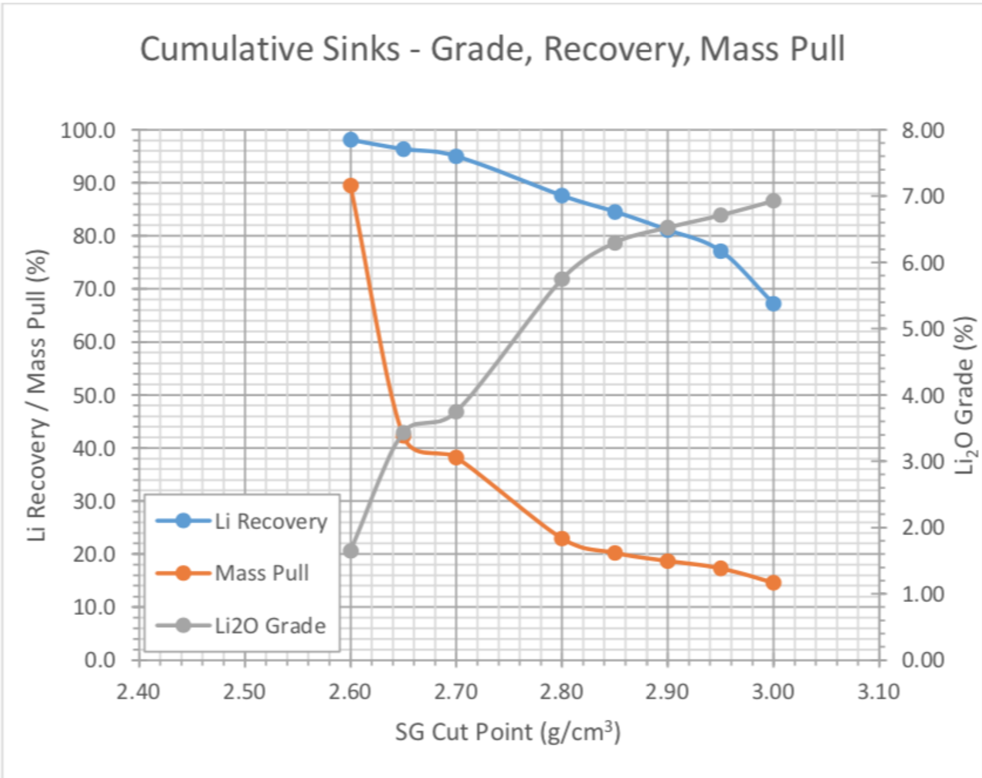


Figure 10-6: Grade, Recovery and Mass Pull Results of Cumulative Sink Products

10.2.2.5 Magnetic Separation and HLS Testwork on the -9.5 mm/+0.85 mm Fraction

Table 10-18, Table 10-19 and Table 10-20 show the magnetic separation results for the –9.5 mm/+0.85 mm fraction. Magnetic separation products graded 4.9% - 13.9% Fe_2O_3 with a lithium loss of less than 0.6%. Magnetic separation was able to reduce the Fe_2O_3 grade in the lithium concentrate from 1.6-1.8% to ~1.2%. The Fe_2O_3 grade was still above the 1% target which may be attributed to lower liberation of iron gangue at the coarser top particle sizes. Further liberation of coarser material may be needed for better iron rejection. Similar to the –6.3 mm/+0.85 mm fraction results, Li_2O_3 grade decreased as the SG decreased. There was also a significant reduction in grade between the SG cut-points of 2.80 and 2.70. The target grade of 6% Li_2O_3 can be achieved after magnetic separation at an SG of 2.85 with the –9.5/+0.85 mm fraction with a lithium recovery of 70.9% (again double check since not same as table data).

Table 10-18: Magnetic separation products results.

		Assay, %		Distribution, %	
	Wt %	Li_2O	Fe_2O_3	Li	Fe_2O_3
SG 3.00 Sink Mag	0.4	0.99	13.9	0.3	7.2
SG 2.95 Sink Mag	0.2	0.82	11.6	0.1	2.8
SG 2.90 Sink Mag	0.3	1.27	7.58	0.3	2.8
SG 2.85 Sink Mag	0.5	1.85	5.41	0.6	3.3
SG 2.80 Sink Mag	0.9	0.61	4.86	0.4	5.6

Table 10-19: Combined Sink Products Results Before Magnetic Separation

Combined HLS Products	HL SG	Weight		Assays (%)		Distribution (%)	
	g/cm^3	g	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
HLS Sink 3.00 SG	3.00	1265	14.8	6.53	1.58	64.4	28.6
HLS Sink 2.95 SG	2.95	1479	17.3	6.23	1.63	71.8	34.4
HLS Sink 2.90 SG	2.90	1654	19.3	5.94	1.69	76.5	39.9
HLS Sink 2.85 SG	2.85	1815	21.2	5.69	1.72	80.4	44.7
HLS Sink 2.80 SG	2.80	2129	24.8	5.16	1.76	85.6	53.6
HLS Sink 2.70 SG	2.70	3225	37.6	3.78	1.58	95.0	72.9
HLS Sink 2.65 SG	2.65	4305	50.2	2.91	1.31	97.7	80.3
HLS Sink 2.60 SG	2.60	8138	94.9	1.57	0.83	99.8	96.8

Table 10-20: Combined Sink Products Results After Magnetic Separation

Combined HLS Products	HL SG	Weight		Assays (%)		Distribution (%)	
	g/cm^3	g	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
HLS Sink 3.00 SG	3.00	1229	14.3	6.69	1.22	64.1	21.4
HLS Sink 2.95 SG	2.95	1426	16.6	6.42	1.20	71.4	24.5
HLS Sink 2.90 SG	2.90	1575	18.4	6.18	1.21	75.8	27.1
HLS Sink 2.85 SG	2.85	1694	19.8	6.00	1.18	79.2	28.6
HLS Sink 2.80 SG	2.80	1926	22.5	5.60	1.16	84.0	31.9
HLS Sink 2.70 SG	2.70	3022	35.2	3.96	1.19	93.3	51.2
HLS Sink 2.65 SG	2.65	4102	47.8	3.01	1.00	96.1	58.6
HLS Sink 2.60 SG	2.60	7935	92.5	1.59	0.66	98.1	75.0

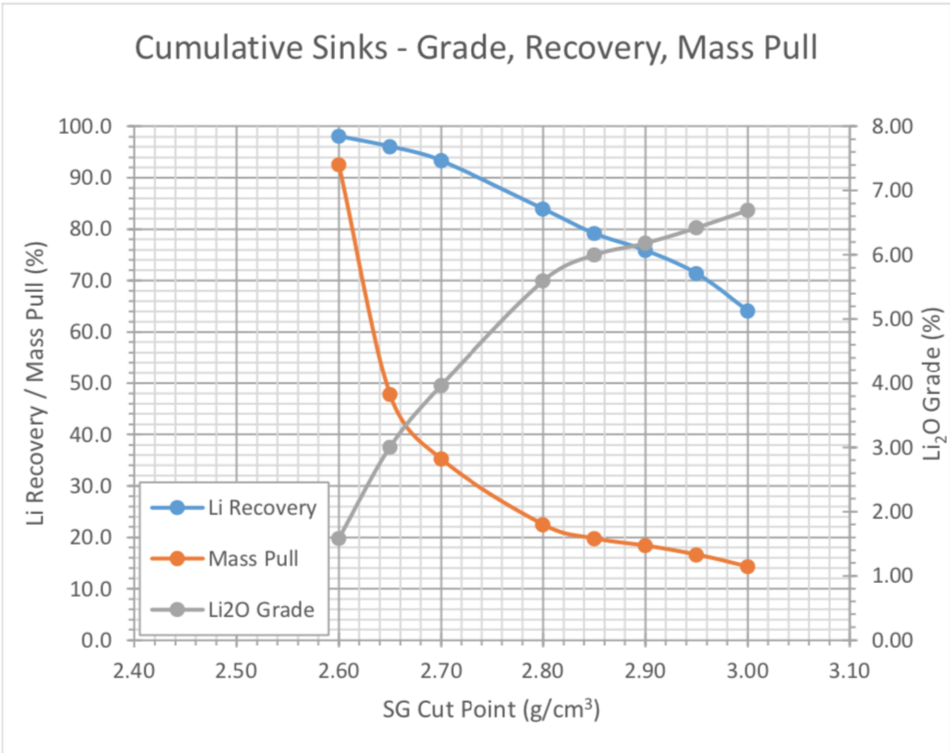


Figure 10-7: Grade, Recovery and Mass Pull Results of Cumulative Sink Products

Global test results are shown in Figure 10-8, Table 10-21and Table 10-22 below.

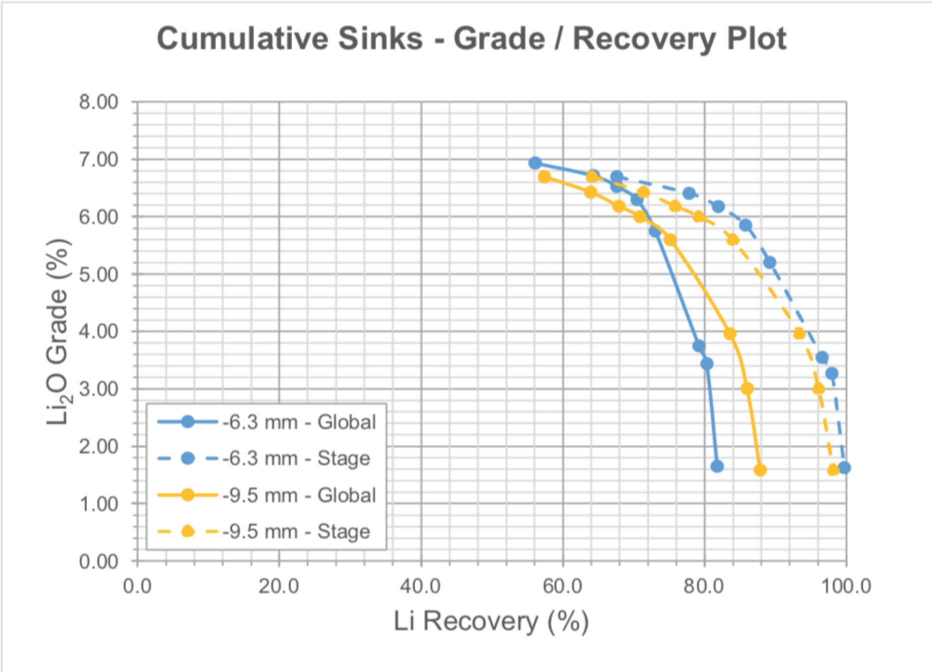


Figure 10-8: Global Results – Comparison of HLS Li Grade vs Recovery

Table 10-21: Global HLS Test Results with target product grade of 6% Li_2O (-6.3mm/+ 0.85mm)

Combined HLS Products	HL SG	Weight		Assays (%)									Distribution (%)							
	g/cm^3	g	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O
HLS Sink 2.85 SG	2.85	1611	16.3	2.93	6.30	64.5	25.1	0.96	0.15	0.16	0.70	0.46	70.5	14.4	25.1	17.4	11.8	6.6	2.6	4.7
HLS Sp Concentrate (interpolated)	2.82	1729	17.5	2.79	6.00	65.0	24.6	0.94	0.15	0.17	0.91	0.54	71.8	15.6	26.3	18.3	12.7	7.6	3.6	5.9
HLS Sink 2.80 SG	2.80	1829	18.5	2.67	5.75	65.4	24.1	0.93	0.15	0.18	1.09	0.60	73.0	16.5	27.4	19.1	13.5	8.5	4.5	7.0
HLS Middling (-2.85 +2.65 SG)	-2.85 +2.65	1756	17.8	0.38	0.81	73.3	15.7	1.03	0.23	0.51	4.39	1.88	9.9	17.8	17.1	20.4	19.8	22.9	17.4	20.8
HLS Middlings (interpolated)	-2.82 +2.65	1638	16.6	0.35	0.74	73.5	15.5	1.05	0.23	0.52	4.42	1.90	8.5	16.7	15.8	19.5	18.9	21.9	16.4	19.6
HLS Mag Sep Conc (3.00-2.80 SG)		227	2.3	0.38	0.81	52.5	22.1	8.39	1.53	3.13	1.97	3.49	1.3	1.7	3.1	21.5	17.3	18.1	1.0	5.0
HLS Tailings (-2.65 SG)	-2.65	4368	44.2	0.03	0.06	77.0	13.3	0.38	0.12	0.24	6.17	1.80	1.7	46.6	36.2	18.7	26.2	27.0	60.8	49.6
Flot Feed		3561	36.0	0.47	1.02	73.5	15.5	1.03	0.25	0.52	4.30	1.76	25.1	36.2	34.3	41.5	43.8	47.3	34.6	39.5
Feed (Calc.)		9885	100	0.68	1.46	73.1	16.3	0.90	0.20	0.40	4.48	1.61	100	100	100	100	100	100	100	100

Table 10-22: Global HLS Test Results with target product grade of 6% Li_2O (-9.5mm/+ 0.85mm)

Combined HLS Products	HL SG	Weight		Assays (%)									Distribution (%)							
	g/cm^3	g	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O
HLS Sink 2.85 SG	2.85	1694	17.1	2.79	6.00	65.2	24.5	1.18	0.17	0.25	0.81	0.54	70.9	15.3	25.8	23.3	13.8	8.7	3.0	5.8
HLS Sp Concentrate (interpolated)	2.85	1693	17.1	2.79	6.00	65.2	24.5	1.18	0.17	0.25	0.81	0.54	70.9	15.3	25.8	23.3	13.8	8.7	3.0	5.8
HLS Sink 2.80 SG	2.80	1926	19.5	2.60	5.60	65.9	23.8	1.16	0.17	0.26	1.04	0.65	75.2	17.6	28.4	26.0	16.1	10.6	4.4	8.0
HLS Middling (-2.85 +2.65 SG)	-2.85 +2.65	1328	24.3	0.42	0.90	74.9	14.6	0.87	0.20	0.78	4.29	1.57	15.1	25.0	21.8	24.4	24.1	39.7	22.8	24.0
HLS Middlings (interpolated)	-2.85 +2.65	1328	24.3	0.42	0.90	74.9	14.6	0.87	0.20	0.78	4.29	1.57	15.1	25.0	21.8	24.4	24.1	39.7	22.8	24.0
HLS Mag Sep Conc (3.00-2.80 SG)		203	2.1	0.49	1.05	54.1	22.4	7.49	1.46	2.95	1.92	3.58	1.5	1.5	2.8	17.7	14.4	12.6	0.9	4.6
HLS Tailings (-2.65 SG)	-2.65	4269	43.2	0.03	0.07	75.6	14.1	0.32	0.13	0.25	6.54	1.90	2.0	44.8	37.3	16.0	26.4	22.2	61.5	51.5
Flot Feed		2647	37.7	0.46	0.98	74.2	14.8	0.99	0.25	0.72	4.22	1.61	25.6	38.4	34.1	42.9	45.3	56.4	34.6	38.1
Feed (Calc.)		8813	100	0.67	1.45	72.9	16.3	0.87	0.21	0.48	4.59	1.59	100	100	100	100	100	100	100	100

10.2.2.6 Dense Media Separation

For the DMS testwork, the Main Composite sample was crushed to 9.5 mm and the fines fraction -0.85 mm was screened out and stored. During DMS testwork, the -0.85 mm fraction from the first pass was rejected again prior to the 2nd DMS pass by wet screening at 0.85 mm. After DMS, dry magnetic separation was performed on the concentrate. The fines fractions from the DMS were combined with the DMS 2nd pass tailings to form the feed to the flotation circuit. The DMS pilot plant used was a DRAA pump-fed cyclone plant with the density of the circulating media controlled to produce the desired SG cut-point in the cyclone. Tracer tests were conducted before and after each DMS pass to ensure the target of the SG cut-point.

Estimation of DMS Performance Based on HLS Results

Table 10-23 shows the predicted recovery expected at a concentrate of 6.18% Li_2O grade after magnetic separation.

Table 10-23: Interpolated HLS Test Results for DMS Performance Estimation

Combined HLS Products	HL SG	Weight	Assays (%)		Distribution (%)	
	g/cm^3	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
HLS Sp Concentrate (interpolated)	2.90	15.9	6.18	1.21	67.9	22.1
HLS Middlings (interpolated)	-2.90 +2.70	15.9	1.51	1.47	16.6	26.9
HLS Mag Sep Conc (3.00-2.90 SG)		0.8	1.05	11.3	0.6	10.4
HLS Tailings (-2.70 SG)	-2.70	54.1	0.12	0.35	4.5	22.1
-0.85 mm Fraction		13.3	1.14	1.20	10.5	18.4
Flot Feed		29.2	1.34	1.35	27.1	45.4

Impact of Near Density Material on DMS

The potential impacts of near density on the DMS 1st and 2nd pass sinks were evaluated by interpolating the HLS test results at +/- 0.02 SG changes within the target SG cuts. Figure 10-9 and Table 10-24 show the Near Density Effect on the 1st pass of the DMS. The SG changes have the potential to change DMS sinks grade from 3.43% to 4.06% Li_2O and lithium distribution from 93.1% to 96.1%. A decrease of SG to 2.68 results in an increased mass pull by ~5% due to lighter materials reporting to the first pass sinks product. An increase to 2.72 results in a reduced sinks mass pull of 2.5%.

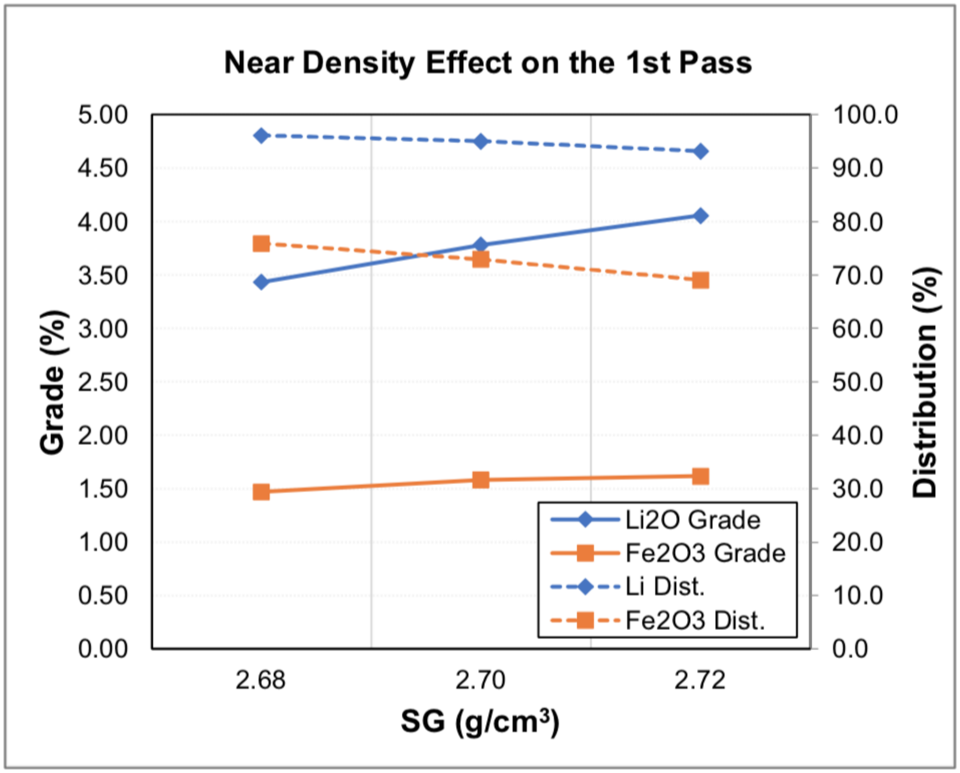


Figure 10-9: Near Density Effect on the DMS 1st Pass

Table 10-24: Potential Impact of Near Density Material on DMS 1st Pass

SG	Weight	Assays (%)									Distribution (%)							
g/cm^3	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O
2.68	42.7	1.60	3.43	68.4	20.2	1.47	0.27	0.71	2.36	1.25	96.1	40.2	51.8	75.9	60.4	65.1	22.1	33.9
2.70	37.6	1.76	3.78	67.3	21.1	1.58	0.28	0.73	2.06	1.25	95.0	34.7	48.0	72.9	56.4	59.7	16.6	29.8
2.72	35.1	1.88	4.06	66.8	21.6	1.62	0.28	0.69	1.87	1.19	93.1	32.2	45.5	69.1	52.8	53.3	14.5	26.7

Figure 10-10 and Table 10-25 show the Near Density Effect on the 2nd pass of the DMS. Concentrate grade is predicted between 5.84% and 6.05% at SG ranges of 2.92 to 2.88. The predicted recovery is between 79% to 82% with mass distribution between 49% and 53%. After the 2nd pass the concentrate is further upgraded with magnetic separation.

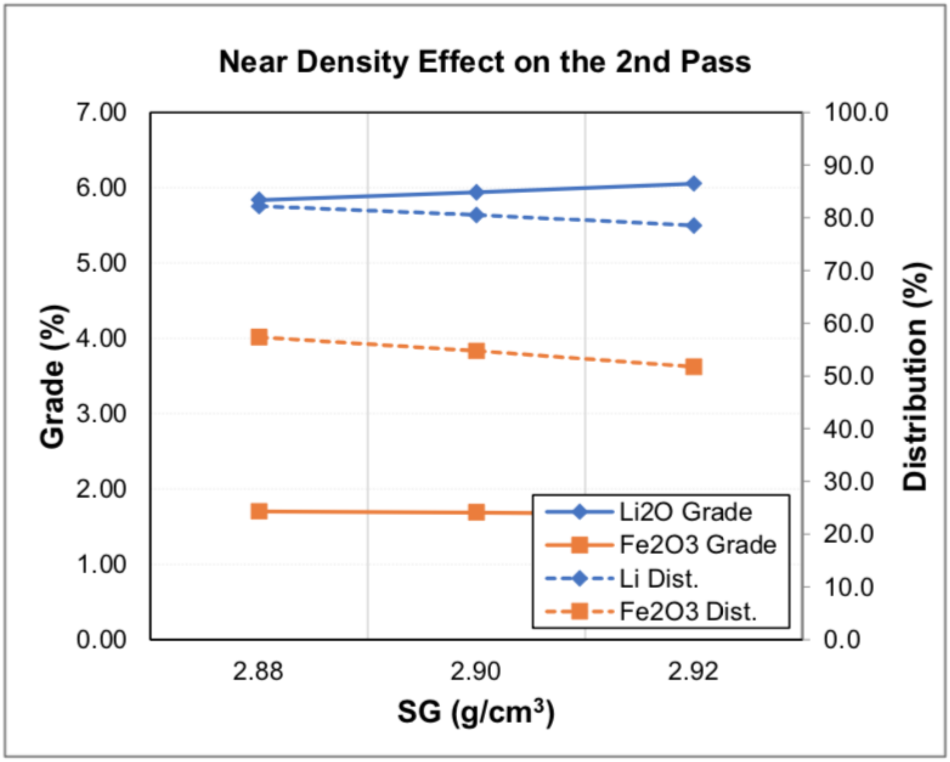


Figure 10-10: Near Density Effect on the DMS 2nd Pass

Table 10-25: Potential Impact of Near Density Material on DMS 2nd Pass

SG	Weight	Assays (%)									Distribution (%)							
g/cm^3	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O
2.88	53.3	2.71	5.84	64.2	24.5	1.70	0.27	0.45	0.81	0.60	82.2	50.9	61.9	57.4	50.3	32.5	21.0	25.6
2.90	51.3	2.76	5.94	64.1	24.7	1.69	0.26	0.43	0.76	0.57	80.5	48.9	60.0	54.7	47.4	30.0	18.9	23.3
2.92	49.1	2.81	6.05	64.0	24.9	1.67	0.25	0.41	0.70	0.53	78.5	46.7	57.9	51.7	43.8	27.4	16.8	21.1

DMS Testwork Results

DMS testwork was performed on ~87 kg of –9.5 mm/0.85 mm fraction of the Main Composite. The 1st pass was performed at 2.70 SG target, and the 2nd pass at 2.90 SG. 58.7% of the mass was rejected as the DMS tailings with a 0.14% Li_2O grade and 5.7% lithium distribution. The 2nd pass of the DMS produced the 6.07% Li_2O concentrate with 69.3% lithium distribution. Table 10-26 shows a summary of the DMS Testwork. The middlings had a 1.77% Li_2O grade and a distribution of 14%. Compared with HLS test results, the DMS concentrate had higher Li_2O grades and lithium distribution. The DMS concentrate, due to the high Fe_2O_3 content requires magnetic separation. The produced DMS middlings were combined with the fine fraction from the DMS screen and the –0.85 mm fraction to produce flotation feed.

Table 10-26: Summary of DMS testwork at 2.7 and 2.9 SGs

Combined DMS Products	DMS SG	Weight		Assay (%)		Distribution (%)	
	g/cm³	kg	%	Li_2O	Fe_2O_3	Li	Fe_2O_3
DMS Concentrate		124	16.5	6.07	1.89	69.3	38.8
DMS Middlings	2.9	85.6	11.4	1.77	1.48	14.0	21.0
DMS Tailings	-2.9	439	58.7	0.14	0.25	5.7	18.2
DMS U/S	-2.7	14.8	2.0	1.72	1.53	2.4	3.8
-0.85 mm fractions		85.1	11.4	1.10	1.29	8.6	18.2
Feed (Calc.)		748	100	1.45	0.80	100	100
Feed (Dir.)				1.42	0.77		

<u>**Magnetic Separation of DMS Concentrate**</u>

A high intensity dry roll magnetic separator was used on a 10 kg subsample of the DMS concentrate. The subsample was split into +3.3 mm and –3.3 mm fractions and each fraction were processed separately. Table 10-27 shows the DMS overall mass balance.

The results of magnetic separation with the +3.3 mm fraction are shown visually in Figure 10-11. The results of magnetic separation for the –3.3 mm fraction is shown in Figure 10-12. Most of the dark magnetic iron bearing and mica particles were rejected for both size fractions.

The magnetic middlings contained some spodumene as a minor loss in the –3.3 mm fraction. To reduce lithium losses, the middlings fraction was passed through magnetic separation again (Figure 10-13).

The final combined non-magnetic and magnetic products assayed 0.91% Fe_2O_3 and 9.41% Fe_2O_3 which met concentrate requirements. Through magnetic separation the Li_2O grade in DMS concentrate was upgraded to 6.52%, and Fe_2O_3 grade was reduced to 0.98%. The target grade of >6.0% Li_2O and <1.0% Fe_2O_3 was successfully achieved in the DMS process.

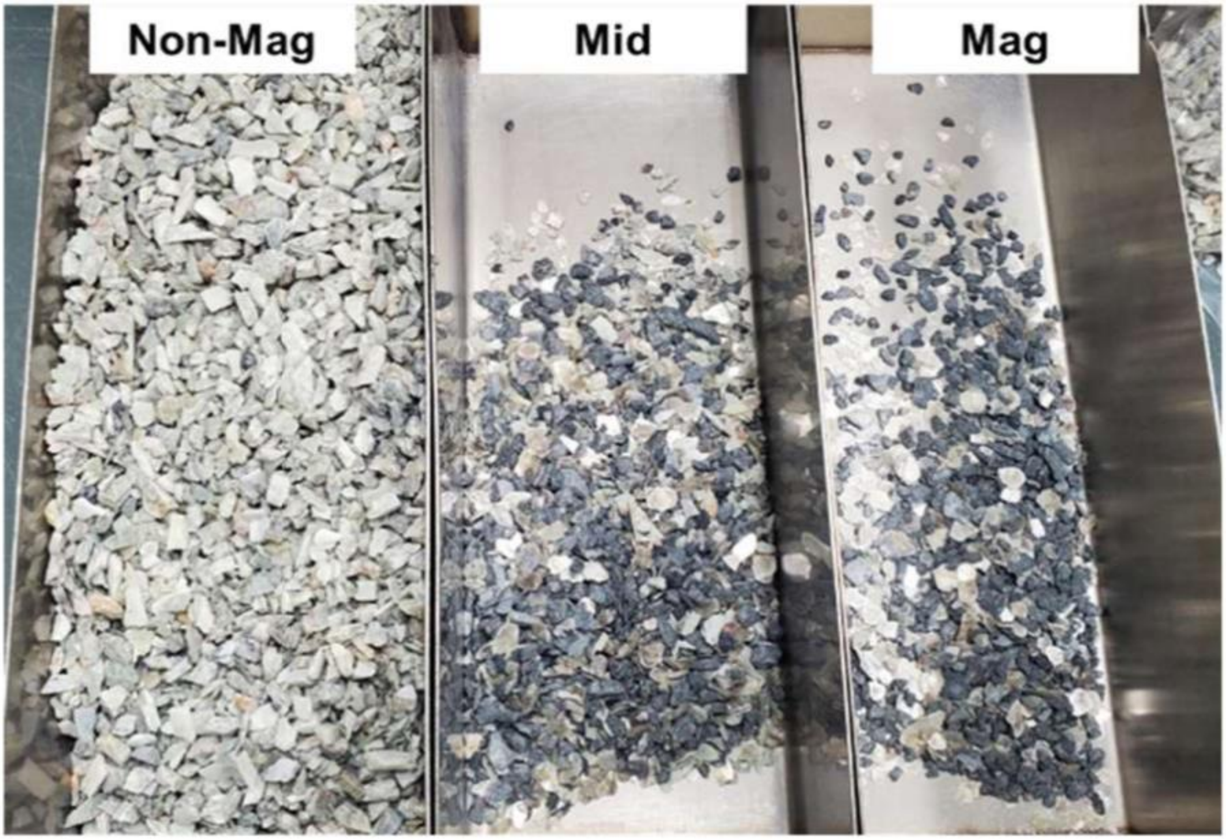


Figure 10-11: Magnetic separation results of +3.3mm fraction

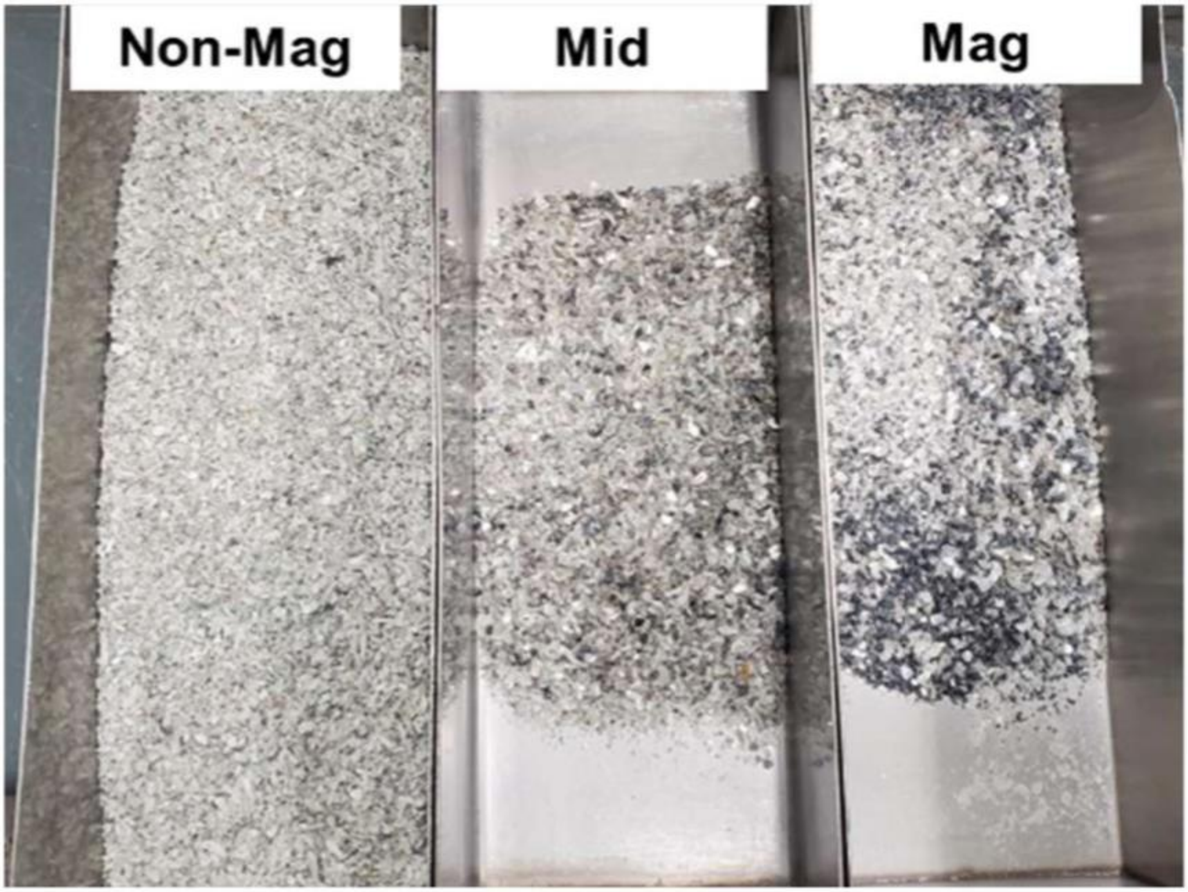


Figure 10-12: Magnetic separation results of -3.3mm fraction

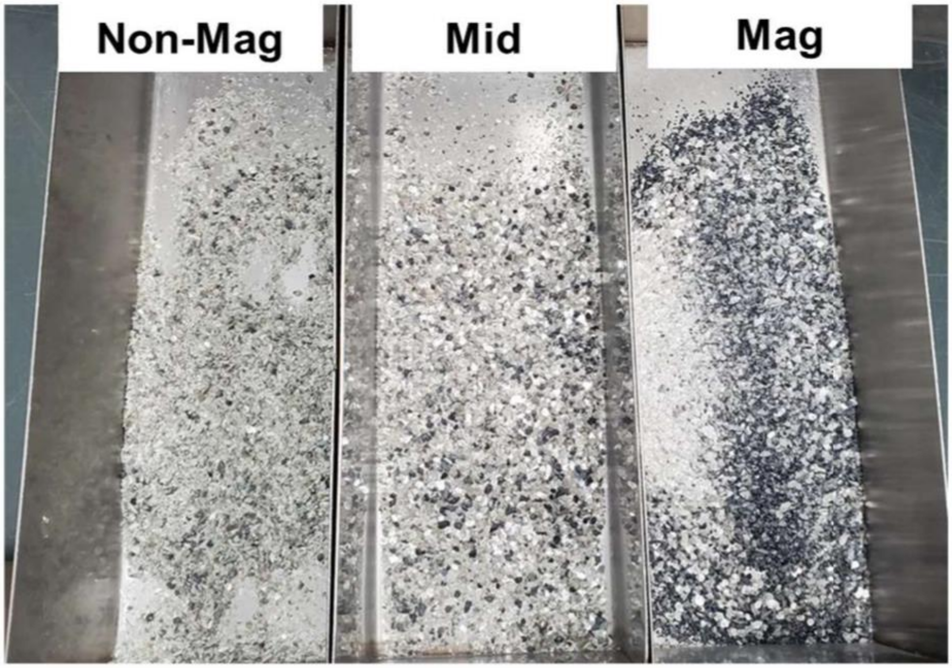


Figure 10-13: Second pass of magnetic separation of -3.3mm fraction middlings

Table 10-27: Overall Mass Balance of DMS Product

Combined DMS	Wt.	Assay (%)											Distribution (%)								
Products	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5	MnO	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5
DMS Conc. (Non Mag)	15.0	3.03	6.52	64.4	25.2	0.98	0.14	0.16	0.69	0.45	0.10	0.13	67.5	13.1	23.3	18.9	10.0	6.0	2.2	4.2	10.8
Mag Conc.	1.5	0.72	1.54	49.9	23.3	8.98	1.50	3.22	1.49	3.17	1.23	0.72	1.6	1.1	2.2	17.9	11.0	12.3	0.5	3.1	14.3
DMS Middlings	11.4	0.83	1.77	70.8	17.9	1.48	0.28	0.64	3.50	1.76	0.17	0.10	14.1	11.0	12.7	21.7	15.4	17.9	8.7	12.6	14.3
DMS Tailings	58.7	0.07	0.14	76.8	13.6	0.25	0.15	0.30	5.98	1.80	0.10	0.02	5.8	61.4	49.2	18.8	41.8	43.2	76.6	65.9	43.9
DMS U/S	2.0	0.80	1.72	70.0	17.4	1.53	0.30	0.61	3.29	2.08	0.15	0.09	2.4	1.9	2.1	3.9	2.8	3.0	1.4	2.6	2.2
-0.85 mm frac.	11.4	0.51	1.10	74.0	14.9	1.29	0.35	0.63	4.22	1.64	0.17	0.08	8.6	11.5	10.5	18.8	18.9	17.6	10.5	11.7	14.5
Feed (Cal.)	100	0.67	1.44	73.4	16.2	0.78	0.21	0.41	4.58	1.60	0.13	0.06	100	100	100	100	100	100	100	100	100
Feed (Dir.)		0.66	1.42	73.2	16.3	0.77	0.20	0.39	4.51	1.62	0.13	0.07									
Flotation Feed (Dir.)		0.67	1.44	72.3	16.4	1.34	0.31	0.65	3.82	1.66	0.17	0.09									
Flotation Feed (Cal.)	24.8	0.68	1.46	72.2	16.5	1.39	0.32	0.63	3.81	1.73	0.17	0.09	25.1	24.4	25.2	44.4	37.2	38.5	20.7	26.8	31.0

Table 10-28: Magnetic separation results +3.3mm and –3.3mm DMS concentrate

Combined DMS Products	Size	Weight		Assay (%)											Distribution (%)									
	mm	g	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5	MnO	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5	MnO
DMS 2nd pass +3.3 mm non-mag	3.3	6098	61.0	2.97	6.39	64.8	24.9	1.02	0.14	0.14	0.78	0.48	0.08	0.14	64.4	62.7	60.7	35.9	32.0	19.0	62.6	41.5	24.1	46.1
DMS 2nd pass -3.3 mm non-mag	-3.3	2954	29.6	3.16	6.79	63.7	25.9	0.91	0.14	0.21	0.49	0.39	0.13	0.11	33.2	29.9	30.6	15.5	15.5	13.8	19.0	16.3	19.0	17.6
DMS 2nd pass 3.3 mm mag	3.3	493	4.9	0.81	1.74	53.1	21.0	8.60	1.71	3.66	1.65	2.88	1.19	0.67	1.4	4.2	4.1	24.5	31.6	40.1	10.7	20.1	29.0	17.8
DMS 2nd pass -3.3 mm mag	-3.3	444	4.4	0.61	1.31	46.3	25.8	9.41	1.26	2.74	1.32	3.50	1.27	0.77	1.0	3.3	4.6	24.1	21.0	27.1	7.7	22.0	27.9	18.5
DMS concentration (Calc.)		9989	100	2.81	6.05	63.1	25.0	1.73	0.27	0.45	0.76	0.71	0.20	0.19	100	100	100	100	100	100	100	100	100	100
DMS concentration (Dir.)				2.83	6.07	63.4	25.1	1.89	0.26	0.37	0.69	0.65	0.14	0.15										

Table 10-29: Combined size fraction DMS concentrate Magnetic separation results.

Combined DMS Products	DMS SG	Weight		Assay (%)											Distribution (%)									
	g/cm³	g	%	Li	Li_2O	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5	MnO	Li	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O	K_2O	P_2O_5	MnO
DMS concentration non-mag	2.9	9052	90.6	3.03	6.52	64.4	25.2	0.98	0.14	0.16	0.69	0.45	0.10	0.13	97.6	92.6	91.3	51.4	47.5	32.8	81.6	57.8	43.1	63.7
DMS concentration mag	2.9	937	9.4	0.72	1.54	49.9	23.3	8.98	1.50	3.22	1.49	3.17	1.23	0.72	2.4	7.4	8.7	48.6	52.5	67.2	18.4	42.2	56.9	36.3
DMS concentration (Calc.)		9989	100	2.81	6.05	63.1	25.0	1.73	0.27	0.45	0.76	0.71	0.20	0.19	100	100	100	100	100	100	100	100	100	100

10.2.2.7 <u>Flotation</u>

The 14 kg sample of flotation feed was stage ground to 100% passing 300 um. The ground material was filtered, dried, homogenized and split into 2 kg portions for flotation testing. The original size of the combined DMS middlings and -0.8 mm fines was P80 of 1726 um which was reduced to P80 of 215 um after stage grinding.

All reagents used for flotation are listed in Table 10-30. A blend of 90% FA2 and 10% TPA100 was used as the primary collector for spodumene. Diluted NaOH and Na2CO3 were used to adjust the pH.

Table 10-30: Flotation Reagent List

Reagent	Manufactuturer	Purpose
NaOH	-	pH modifier
Na_2CO_3	-	pH modifier
MIBC	-	Frother
EDA	-	Mica Collector
F220	Pionera	Dispersant
FA2	Arizona Chemical	Spodumene collector
TPA 100	NordChem	Spodumene collector

Prior to flotation the samples were passed through wet high intensity magnetic separation (WHIMS) at 10,000 and 13,000 gauss. Two flotation tests (F1 and F2) were performed. Both tests used the same procedure of floating mica first using EDA as the collector followed by one rougher stage and two rougher-scavenger stages.

Table 10-31 shows the mica flotation results. The mica removal stage reported a mass pull of 7.1% and 8.3% for the two tests with corresponding lithium losses of 4.1% and 5.6% respectively.

Table 10-31: Mica flotation results.

Test #	Wt %	Li_2O assay %	Li distribution %
F1	7.1	0.80	4.1
F2	8.3	0.95	5.6

After completion of the mica flotation, the feed was subjected to an alkaline scrubbing stage at a pH of 11 using NaOH. The feed was deslimed and dewatered before conditioning at ~60% (w/w) solids with a fatty acid collector. In the first test (F1) the collector dosage was around 400 g/t, in the second test (F2) the dosage was increased to about 500 g/t. Scavenger flotation was performed on both tests, but the concentrate from the scavengers was not passed to the cleaning stages. Three stages of cleaner flotation were used to produce the final spodumene concentrate. The results of the tests are shown inFigure 10-14. Each point on the Figure (right to left) represents the rougher-scavenger, rougher, 1st cleaner, 2nd cleaner, 3rd cleaner, and non-magnetic 3rd cleaner concentrate. A higher collector dosage was beneficial to flotation performance Test F2 final non-magnetic 3rd cleaner concentrate achieved a stage lithium recovery of 66% at 6.22% Li_2O and 0.87% Fe_2O_3 meeting the concentrate target grade and purity.

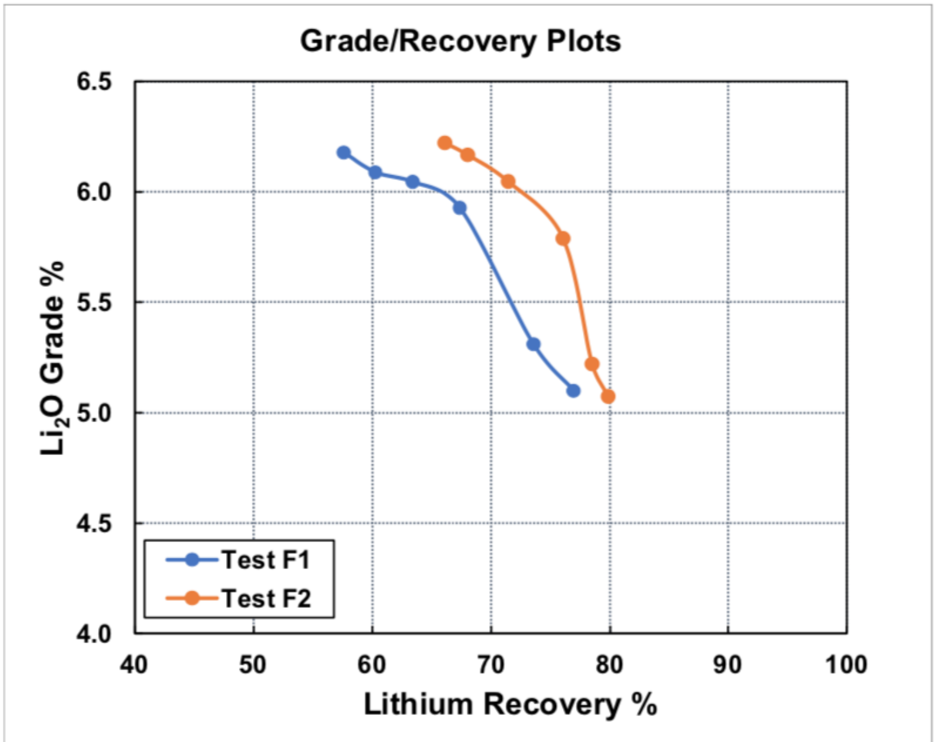


Figure 10-14: Flotation test results

11. Mineral Resource Estimate

The updated Mineral Resource estimate for the Snow Lake Lithium Project for the Measured category was calculated to be 252,590 tonnes grading 0.96% Li_2O for TB and 499,273 tonnes grading 1.21% Li_2O for GR. The Indicated category was calculated to be 5,564,268 tonnes grading 1.12% Li_2O for TB and 1,045,413 tonnes grading 0.98% Li_2O for GR. The Measured and Indicated values for tonnage for TB are 5,816,858 grading 1.11% Li_2O, and 1,544,686 grading 1.06% Li_2O for GR. The Inferred Resource for TB was calculated as 567,615 tonnes grading 1.06% Li_2O and for GR it was 490,463 tonnes grading 0.83%. Open pit and underground are reported together in this paragraph, see the following pages for more detail. The values for the global resource are indicated in the table below. The CIM definition for 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 that there are reasonable prospects for eventual economic extraction".

The cutoff grade for the dikes is dependent on whether the mining method is a surface cut or open pit. The surface cut would be down to a depth of 40 m with a cutoff grade of 0.05 % Li_2O, with a 0.3% Li_2O for underground mining. Open pit mining is far less expensive than underground mining, which is why it can afford a lower cutoff grade. These cut-off grades were used as the minimum grade that is necessary to cover estimated production costs as per the following criteria (costs and prices in US$):

Table 11-1: Resource Estimate for the Thompson Brothers and Grass River, Underground Lithium Project

Cut-off 0.3 Li2O%	Tonnes (t)	Grade Li2O%	Li2O tonnes
Measured	664,540	1.15	7,646
Indicated	6,275,985	1.11	69,505
Inferred	774,657	1.03	7,989

Table 11-2: TB and GR underground resource estimate at difference cut-off grade

Table of Various Cut-Off Grades for Thompson Brothers and Grass River, Underground									
	Measured			**Indicated**		M+I	**Inferred**		
Cut-off Li2O%	Tonnes	Grade Li2O%	Li2O Tonnes	Tonnes	Grade Li2O%	Li2O Tonnes	Tonnes	Grade Li2O%	Li2O Tonnes
0	667,772	1.15	7,649	6,320,546	1.10	77,250	819,798	0.99	8,081
0.1	666,376	1.15	7,649	6,320,546	1.10	77,250	819,798	0.99	8,081
0.2	665,213	1.15	7,647	6,303,158	1.10	77,222	798,676	1.01	8,048
0.3	**664,540**	**1.15**	**7,646**	**6,275,985**	**1.11**	**77,151**	**774,657**	**1.03**	**7,989**
0.4	661,724	1.15	7,636	6,247,830	1.11	77,043	756,756	1.05	7,927
0.5	657,739	1.16	7,618	6,200,086	1.12	76,805	742,921	1.06	7,863
0.6	637,581	1.18	7,504	6,038,952	1.13	75,791	714,374	1.08	7,707
0.7	580,414	1.23	7,130	5,779,976	1.15	73,731	674,760	1.10	7,449
0.8	506,736	1.30	6,577	5,358,990	1.18	69,996	618,608	1.14	7,024
0.9	441,496	1.36	6,022	4,645,496	1.23	63,356	533,021	1.18	6,295
1	384,380	1.43	5,480	3,887,125	1.29	55,621	390,496	1.26	4,925

Table 11-3: Resource Estimate for the GR, Open Pit Lithium Project

Cut-off 0.05 Li2O%	Tonnes (t)	Grade Li2O%	Li2O tonnes
Measured	84,092	0.98	827
Indicated	284,021	1.03	2,912
Inferred	232,462	0.87	2,017

Table 11-4: GR open pit resource estimate at different cut-off grades

Table of Various Cut-Off Grades for Grass River, Open Pit									
	Measured			**Indicated**		M+I	**Inferred**		
Cut-off Li2O%	Tonnes	Grade Li2O%	Li2O Tonnes	Tonnes	Grade Li2O%	Li2O Tonnes	Tonnes	Grade Li2O%	Li2O Tonnes
0	84,092	0.98	827	284,021	1.03	3,739	234,946	0.86	2,018
0.01	84,092	0.98	827	284,021	1.03	3,739	234,946	0.86	2,018
0.02	84,092	0.98	827	284,021	1.03	3,739	234,946	0.86	2,018
0.03	84,092	0.98	827	284,021	1.03	3,739	234,673	0.86	2,018
0.04	84,092	0.98	827	284,021	1.03	3,739	233,655	0.86	2,018
0.05	**84,092**	**0.98**	**827**	**284,021**	**1.03**	3,739	**232,462**	**0.87**	**2,017**
0.1	83,700	0.99	827	282,741	1.03	3,738	230,437	0.87	2,016
0.2	77,652	1.05	818	245,236	1.17	3,678	201,868	0.98	1,970
0.3	74,625	1.09	811	237,973	1.19	3,653	179,053	1.07	1,915
0.4	71,920	1.11	801	226,989	1.23	3,603	166,447	1.12	1,872
0.5	69,436	1.14	790	211,918	1.29	3,526	144,318	1.23	1,773

Underground Mining-Thompson Brothers

- 6% Li_2O Concentrate Price= $3,500/tonne.
- Mining Cost/tonne= $33.46
- Processing Cost/tonne= $15.82
- Processing Recovery= 77%
- Concentrate Haulage/tonne= $15.02 for 6% Spodumene

Surface Mining- Grass River

- 1% DSO Price= $504/tonne.
- Contract Mining Cost/tonne= $4.85
- Processing Cost/tonne= $15.82
- Concentrate Haulage/tonne= $99.97 for 1% DSO

Underground Mining- Grass River

- 6% Li_2O Concentrate Price= $3,500/tonne.
- Mining Cost/tonne= $33.46
- Processing Cost/tonne= $15.82
- Processing Recovery= 90.1%

Concentrate Haulage/tonne= $15.02 for 6% Li_2O

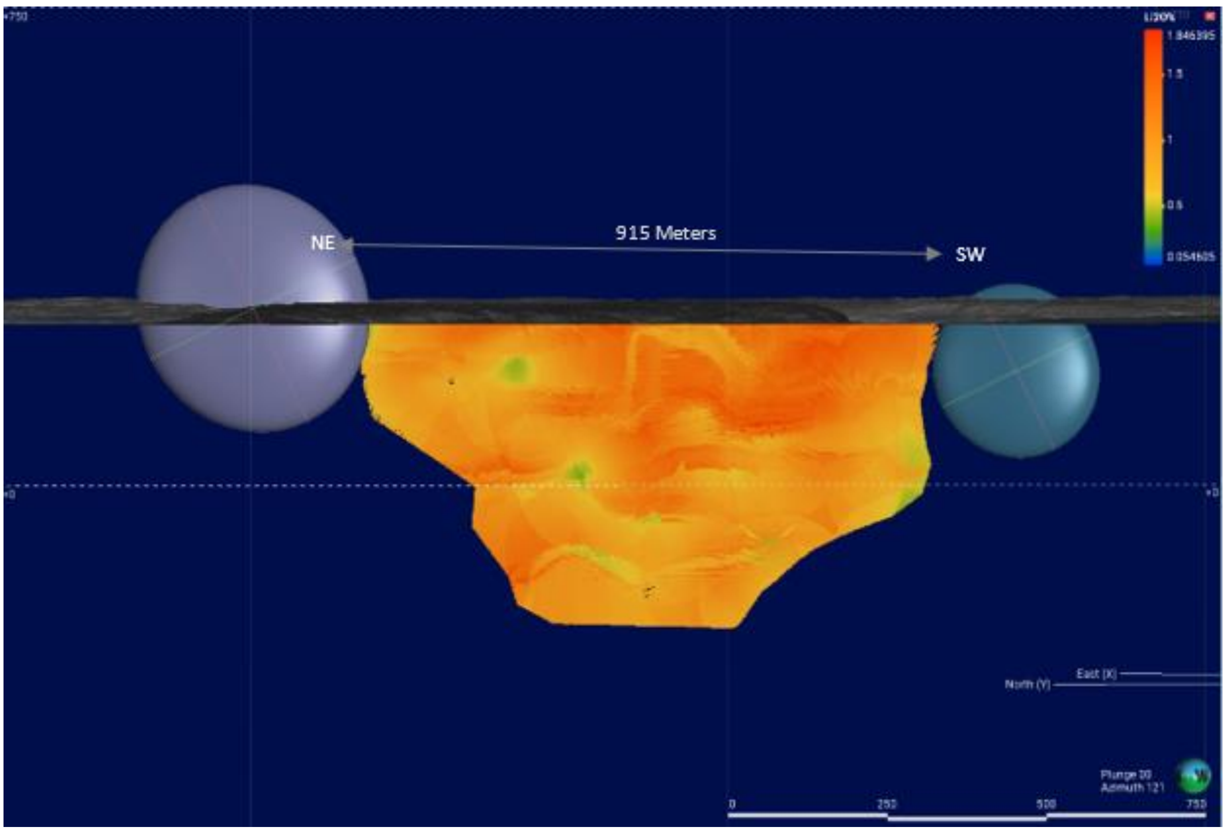


Figure 11-1: Long Section View of Grade distribution for TB

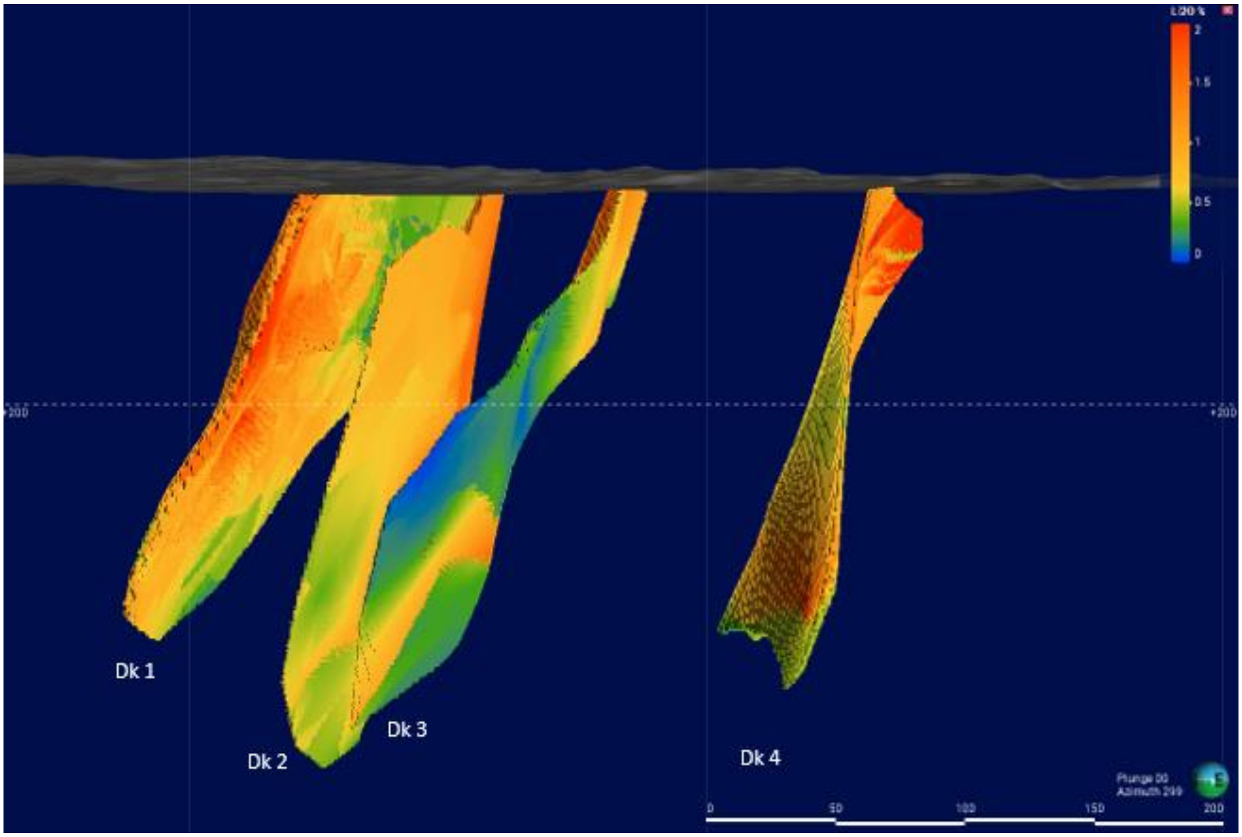


Figure 11-2: Long Section View of Grade distribution for GR

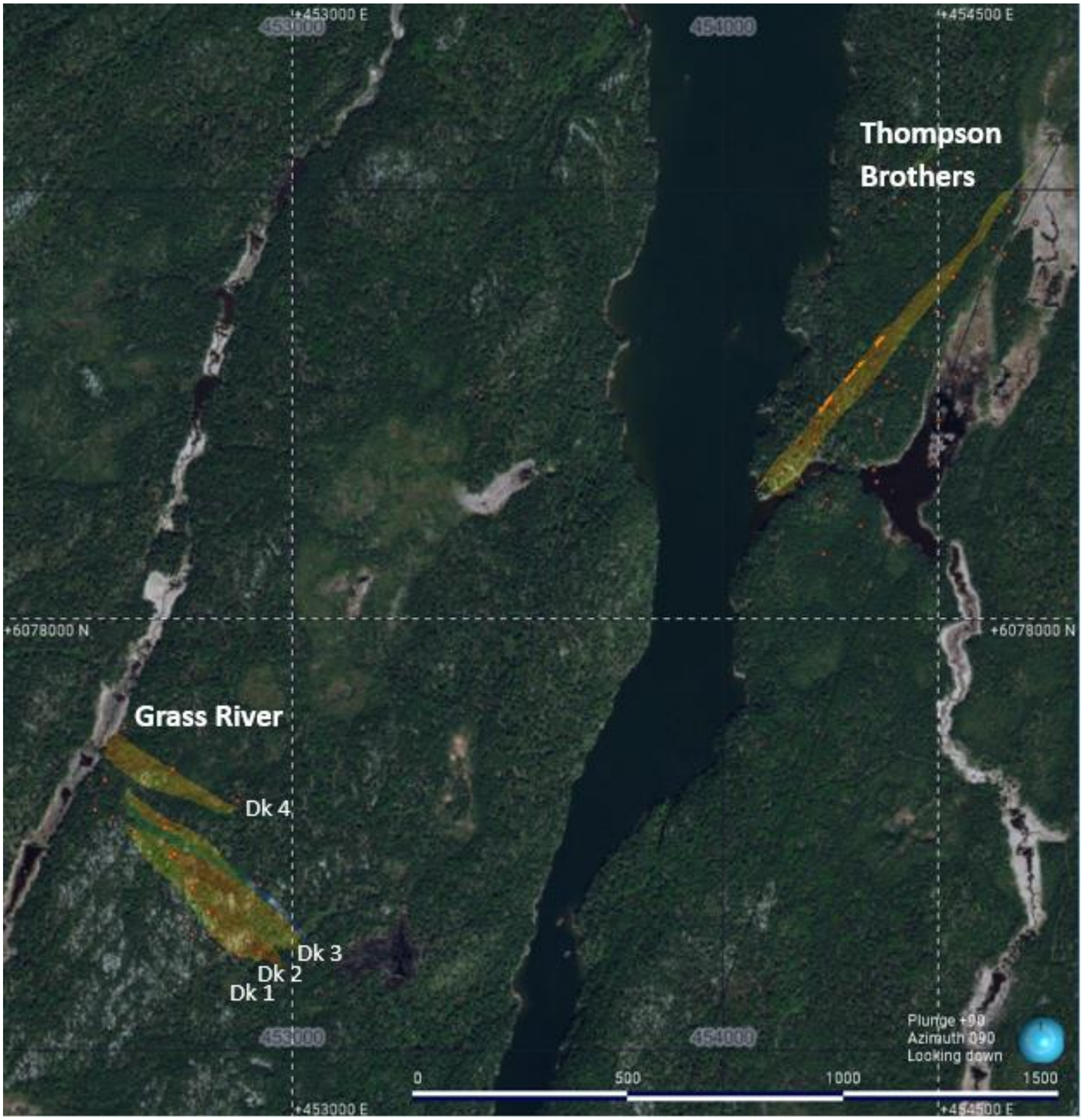


Figure 11-3: Plan View of topography

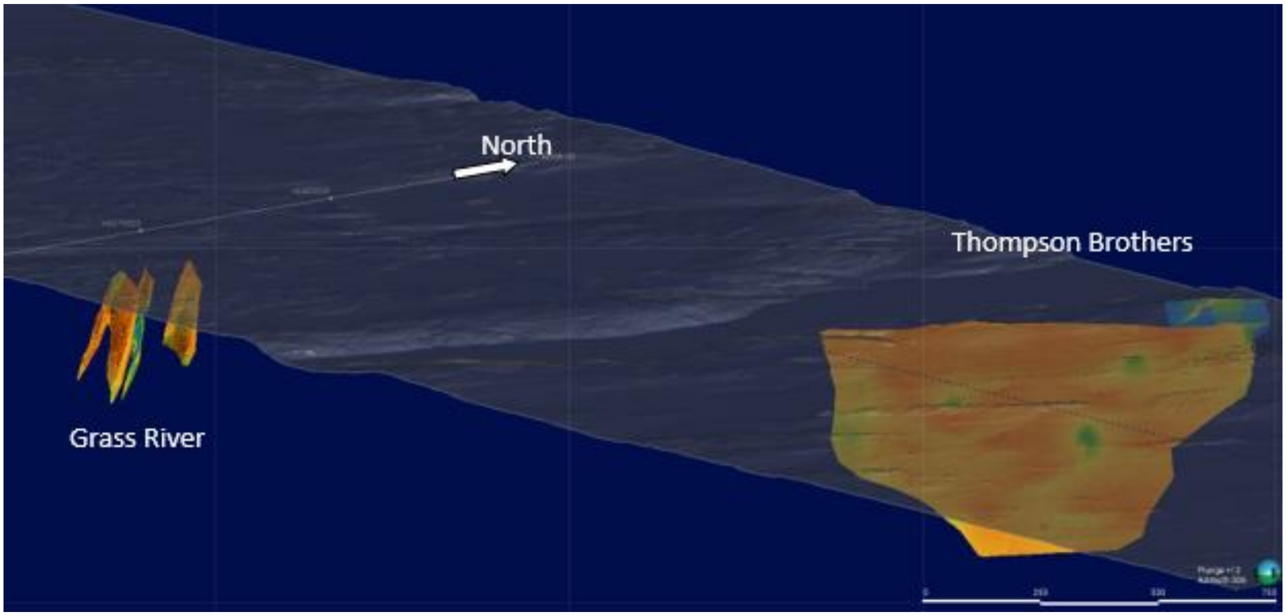


Figure 11-4: Oblique View of Topography with Grade Distribution

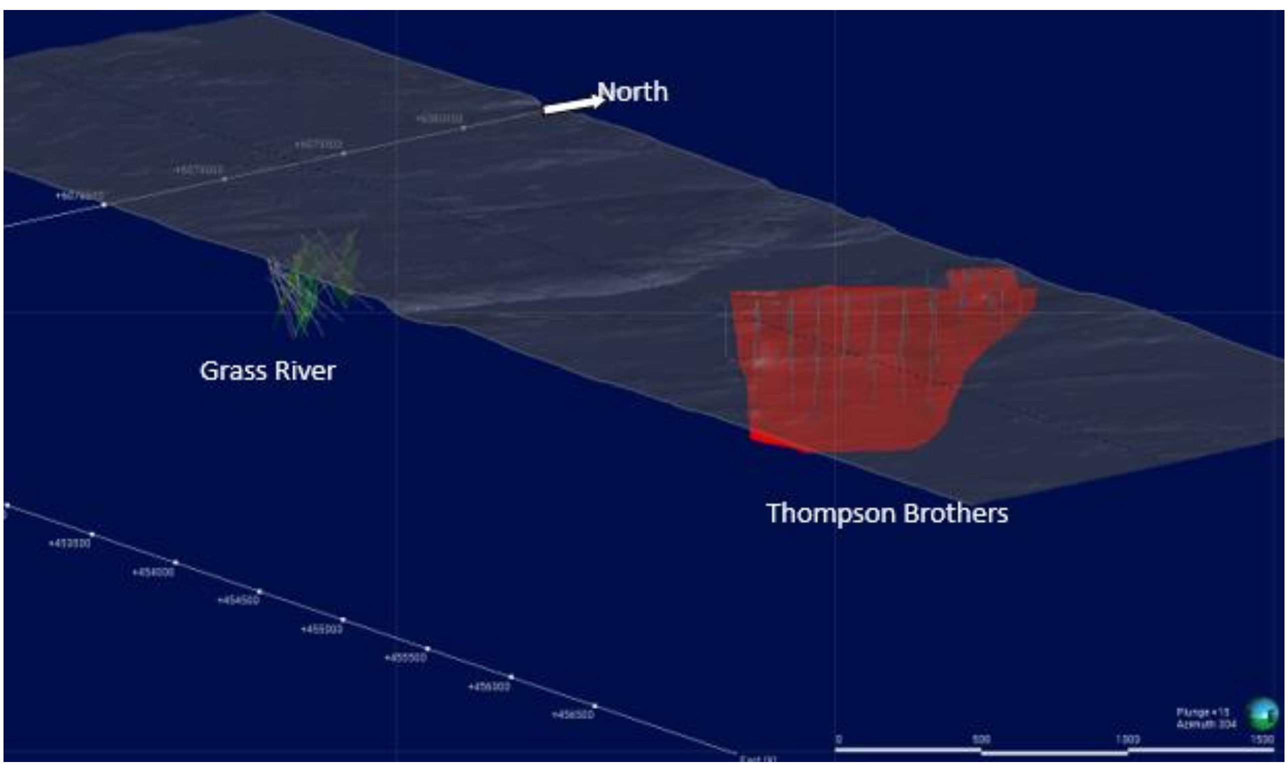


Figure 11-5: Oblique View with Drill Holes and Grade Shell

11.1 Estimation Method

As of 2023, the total exploration drill holes completed on the property since 1942 is 161 drill holes at a total depth of 27,475.48 m. All drill holes prior to 2017 could not be located, therefore, they were not used for the resource estimate.

The total number of drill holes on the TB project by Quantum/Nova Minerals was 62 at a total depth of 14, 065.86 m. At Grass River, SLR started drilling in 2022 and completed 47 holes for a total of 9,186 m.

All the holes were drilled with NQ sized core barrel diameters. All holes were drilled with NQ sized core barrel diameters. Holes were drilled at various angles to allow for multiple intersections and multiple holes to be drilled from single drill pads to minimize the environmental footprint.

The entire Resource Estimation in Table 11-2 was constrained using a 3D grade shell. Block size is 4x4x4 meters and grade estimation was carried out using Ordinary Kriging with 1m composites for dikes 3 & 4, and 2 m composites for Dikes 1 & 2 for GR. Composites for TB were set to 2.0 meters for TB. No upper grade cap was used and a lower cut-off grade 0.3% Li_2O for underground development. For TB, blocks were estimated using two search ellipsoids. The first ellipsoid has an orientation of 305°, 64° plunge, and 82° dip, and with a search ellipsoid major ratio of 140 m and semi-major ratio of 130 m. The second ellipsoid has an orientation of 305°, 64° plunge, and 82° dip, and with a search ellipsoid major ratio 200 m and semi-major ratio of 180 m. For GR, blocks were estimated using a search ellipsoid for each dike. The Dike 1 (Image 1) has three search ellipsoids: the shorter ellipsoid has an orientation of 220°, 67° plunge, and 63° dip, and with a search ellipsoid major ratio of 45 m and semi-major ratio of 35 m. The intermediate ellipsoid has an orientation of 204°, 17° plunge, and 81° dip, and with a search ellipsoid major ratio of 70 m and semi-major ratio of 55 m. The larger ellipsoid has an orientation of 204°, 17° plunge, and 81° dip, and with a search ellipsoid major ratio of 125 m and semi-major ratio of 75 m. The Dike 2 (Image 1) has two search ellipsoids: the intermediate ellipsoid has an orientation of 216°, 12° plunge, and 73° dip, and with a search ellipsoid major ratio of 90 m and semi-major ratio of 60 m. The larger ellipsoid has an orientation of 219°, 7° plunge, and 72° dip, and with a search ellipsoid major ratio of 165 m and semi-major ratio of 85 m. The Dike 3 (Image 1) has one search ellipsoid; the ellipsoid has an orientation of 226°, 19° plunge, and 72° dip, and with a search ellipsoid major ratio of 160 m and semi-major ratio of 80 m. The Dike 4 (Image 1) has one search ellipsoid; the ellipsoid has an orientation of 205°, 12° plunge, and 78° dip, and with a search ellipsoid major ratio of 150 m and semi-major ratio of 60 m.

For Thompson Brothers, a maximum search distance of 175 m for Inferred class categories, 105 m for Indicated and 65 m for Measured. Tonnages were calculated by using a specific gravity of 2.7 g/cm^3. 219 composite samples were used for the resource estimate (each approximately 2.0 meters in length). Blocks needed to have a minimum of two and a maximum of 15 composite samples within the given search radius to be included in the Resource Estimate. For Grass River, classification was estimated using different search distance for each dike. Dike 1The Dike 1 (Image 1) has a maximum search distance of 155 for Inferred class categories, 50 m for Indicated and 35 m for Measured. Tonnages were calculated by using a specific gravity of 2.7 g/cm^3. 99 composite samples were used for the resource estimate (each approximately 2.0 meters in length). Blocks needed to have a minimum of two and a maximum of 20 composite samples within the given search radius to be included in the Resource Estimate. Dike 2 (Image 1) has a maximum search distance of 155 for Inferred class categories, 70 m for Indicated and 45 m for Measured. Tonnages were calculated by using a specific gravity of 2.7 g/cm^3. 99 composite samples were used for the resource estimate (each approximately 2.0 meters in length).

Blocks needed to have a minimum of two and a maximum of 20 composite samples within the given search radius to be included in the Resource Estimate.

Leapfrog Geo was the software that was used to create the geological model and Leapfrog Edge was the software used to estimate the resource.

11.2 Density

The SLR lithium project Resource Estimate used a density of 2.70 g/cm^3 which was measured in 37 drill holes. This was calculated from the weighted average of spodumene bearing pegmatites that were tested for density. This value was slightly lower than the pegmatites which did not host spodumene mineralization. 14.2.1

11.3 Cut-Off Grade

A 0.30% Li_2O cut-off grade was used to estimate the underground resource and 0.05% Li_2O was used to estimate the open pit resource as these are the maximum grades that are needed to cover estimated production costs.

11.4 Grade Capping

To evaluate whether cutting of the higher-grade samples was appropriate, a decile analysis can be performed. A grade capping analysis was considered, however, there is good correlation of the data and capping was unnecessary.

11.5 Block Model Parameters

Figure 11-6 and Figure 11-7 below are the parameters used for the Thompson Brothers and Grass River deposit respectively.

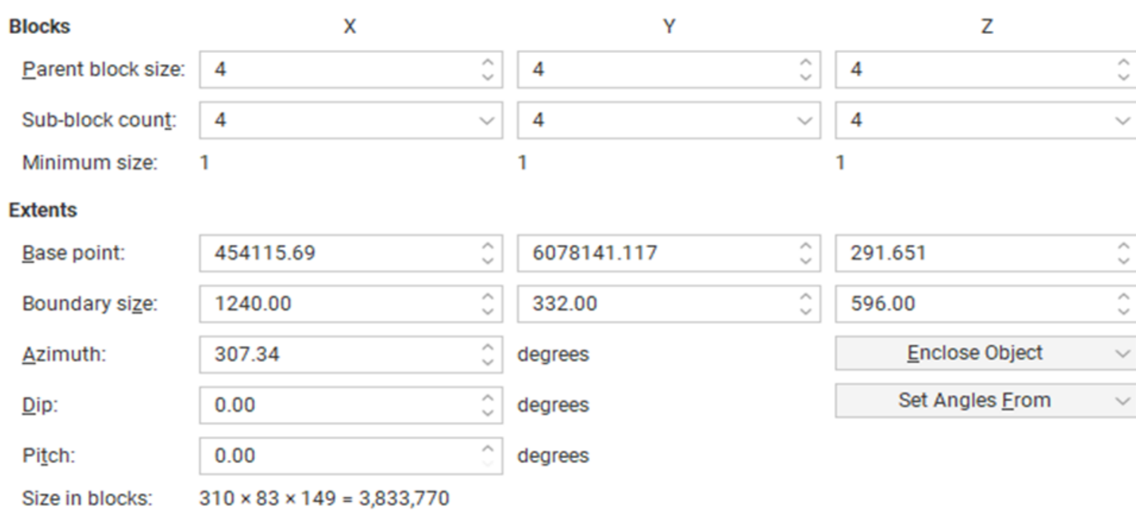


Figure 11-6: Block model parameters for the Thompson Brothers deposit

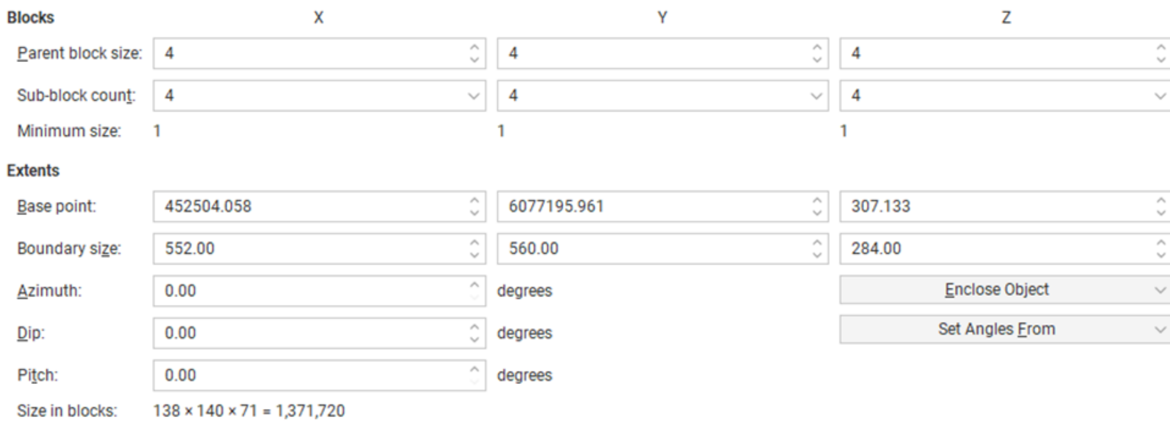


Figure 11-7:Block model parameters for the Grass River deposit

11.6 Interpolation and Search Factors

For Thompson Brothers, all existing drill hole information was used to create 2 m downhole drill assay composites. On the other hand, for Grass River, different composites were used. For Dike1-Dk1 and Dike2-Dk2, 2 m downhole drill assay composites were used. For Dk3 and Dk4, 1 m downhole drill assay composites were used. The block model size was selected to match mineralized zone continuity and the size of the mining equipment that will likely be used. Larger block sizes also reduce grade variability with the intention of producing more accurate grade estimating and controlling will occur during production.

Interpolation Method: Ordinary Kriging with interpolation block sizes is equal to 4m x 4m x 4m. Cap grade is 0. A visual representation of the search ellipse was plotted and visualized to ensure that it logically follows strike, dip and plunge of Li mineralization. The search parameters that were used are as follows:

Measured TB-Resource Estimate Search		Indicated TB-Resource Estimate Search	
Max Search Distance of Major Axis	65 m	Max Search Distance of Major Axis	105 m
Max Vertical Search Distance	65 m	Max Vertical Search Distance	105 m
Max Number of Informing Samples	20	Max Number of Informing Sample	20
Minimum Number of Informing Samples	3	Minimum Number of Informing Samples	3

Inferred TB-Resource Estimate Search	
Max Search Distance of Major Axis	180 m
Max Vertical Search Distance	180 m
Max Number of Informing Samples	20
Minimum Number of Informing Samples	2

Figure 11-8: Search parameters used for the TB resource estimate.

Measured GR Dk1-Resource Estimate Search	
Max Search Distance of Major Axis	30 m
Max Vertical Search Distance	30 m
Max Number of Informing Samples	20
Minimum Number of Informing Samples	3

Indicated GR Dk1-Resource Estimate Search	
Max Search Distance of Major Axis	55 m
Max Vertical Search Distance	55 m
Max Number of Informing Samples	20
Minimum Number of Informing Samples	3

Inferred GR Dk1-Resource Estimate Search	
Max Search Distance of Major Axis	110 m
Max Vertical Search Distance	110 m
Max Number of Informing Samples	20
Minimum Number of Informing Samples	2

Figure 11-9: Search parameters used for the GR Dk1 resource estimate.

Measured GR Dk2-Resource Estimate Search	
Max Search Distance of Major Axis	45 m
Max Vertical Search Distance	45 m
Max Number of Informing Samples	14
Minimum Number of Informing Samples	3

Indicated GR Dk2-Resource Estimate Search	
Max Search Distance of Major Axis	70 m
Max Vertical Search Distance	70 m
Max Number of Informing Samples	14
Minimum Number of Informing Samples	3

Inferred GR Dk2-Resource Estimate Search	
Max Search Distance of Major Axis	125 m
Max Vertical Search Distance	125 m
Max Number of Informing Samples	14
Minimum Number of Informing Samples	2

Figure 11-10: Search parameters used for the GR Dk2 resource estimate.

Measured GR Dk3-Resource Estimate Search	
Max Search Distance of Major Axis	50 m
Max Vertical Search Distance	50 m
Max Number of Informing Samples	10
Minimum Number of Informing Samples	3

Indicated GR Dk3-Resource Estimate Search	
Max Search Distance of Major Axis	80 m
Max Vertical Search Distance	80 m
Max Number of Informing Samples	10
Minimum Number of Informing Samples	3

Inferred GR Dk3-Resource Estimate Search	
Max Search Distance of Major Axis	145 m
Max Vertical Search Distance	145 m
Max Number of Informing Samples	10
Minimum Number of Informing Samples	2

Figure 11-11: Search parameters used for the GR Dk3 resource estimate.

Measured GR Dk4-Resource Estimate Search	
Max Search Distance of Major Axis	40 m
Max Vertical Search Distance	40 m
Max Number of Informing Samples	8
Minimum Number of Informing Samples	3

Indicated Dk4-Resource Estimate Search	
Max Search Distance of Major Axis	75 m
Max Vertical Search Distance	75 m
Max Number of Informing Samples	8
Minimum Number of Informing Samples	3

Inferred GR Dk4-Resource Estimate Search	
Max Search Distance of Major Axis	150 m
Max Vertical Search Distance	150 m
Max Number of Informing Samples	8
Minimum Number of Informing Samples	2

Figure 11-12: Search parameters used for the GR Dk4 resource estimate.

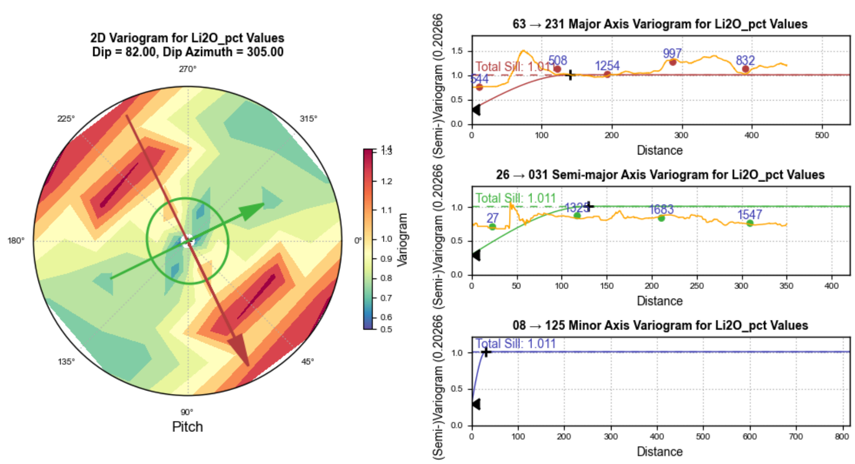
11.7 Variography Study

For this Resource Estimate a variography study was conducted to determine which search factors were to be used, but all searches were confined to a grade shell which constrained the search significantly to a geological interpretation. Following are the results from this study:

Search Ellipse Parameters

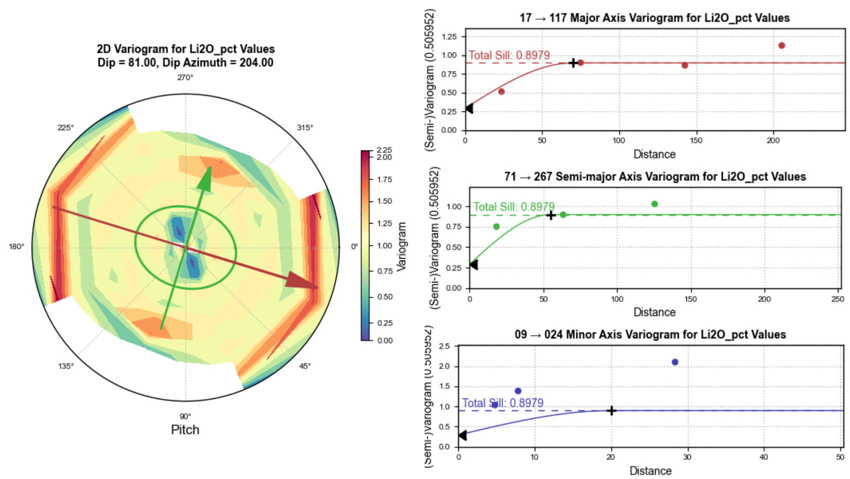
Experimental Variogram Thompson Brothers Variogram Parameters: Max Distance: 140200 m, Dip Azimuth: 305040 degrees, Variogram Pitch: 64Plunge: 55 degrees, Spread Angle: 2522.5 degrees, Spread Limit: None, Statistics: 21914,103 samples, Mean: 1.250.513481, Variance: 0.28.953493, Standard Deviation: 0.442.992239.

Variogram Results: Model Type: Spherical, Structure 1: Sill = 1.011097, **Range = 140145 m** (Figure 14-10 and Figure 14-11).



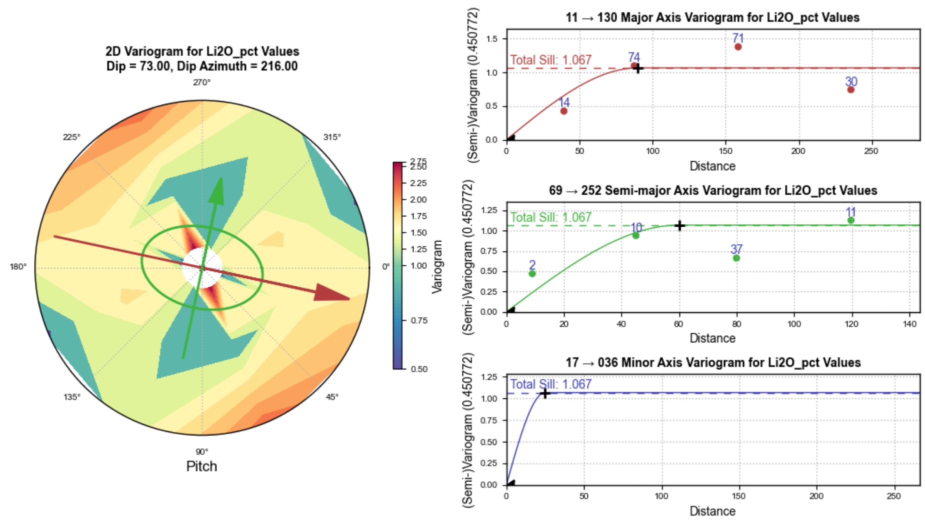
Experimental Variogram Grass River Dike 1 Variogram Parameters: Max Distance: 70 m, Dip Azimuth: 204 degrees, Variogram Pitch: 17 degrees, Spread Angle: 22 degrees, Spread Limit: None, Statistics: 99 samples, Mean: 1.08, Variance: 0.51, Standard Deviation: 0.71.

Variogram Results: Model Type: Spherical, Structure 1: Sill = 0.8979, **Range =** 70 m (Figure 14-10 and Figure 14-11).



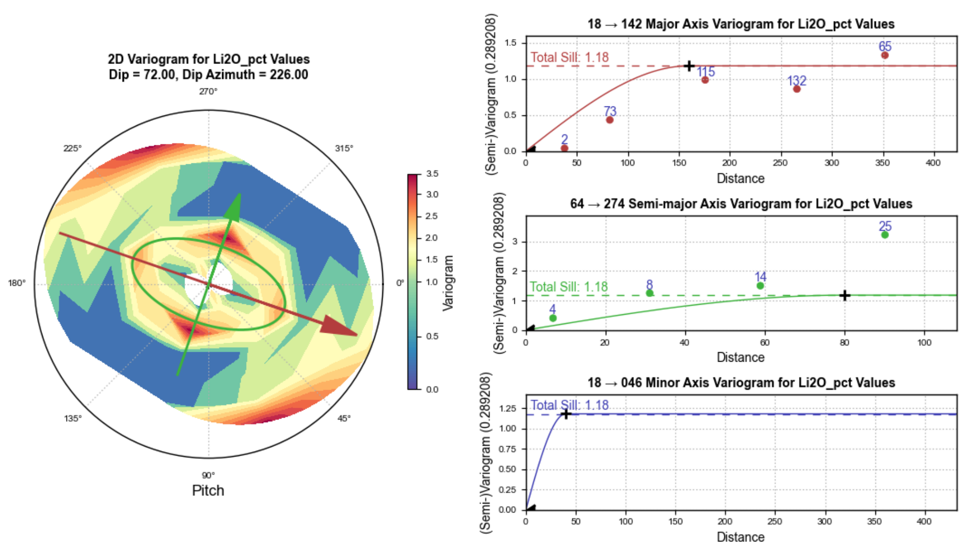
Experimental Variogram Grass River Dike 2 Variogram Parameters: Max Distance: 90 m, Dip Azimuth: 216 degrees, Variogram Pitch: 12 degrees, Spread Angle: 29 degrees, Spread Limit: None, Statistics: 30 samples, Mean: 1.15, Variance: 0.41, Standard Deviation: 0.64.

Variogram Results: Model Type: Spherical, Structure 1: Sill = 1.067, **Range =** 90 m (Figure 14-10 and Figure 14-11).



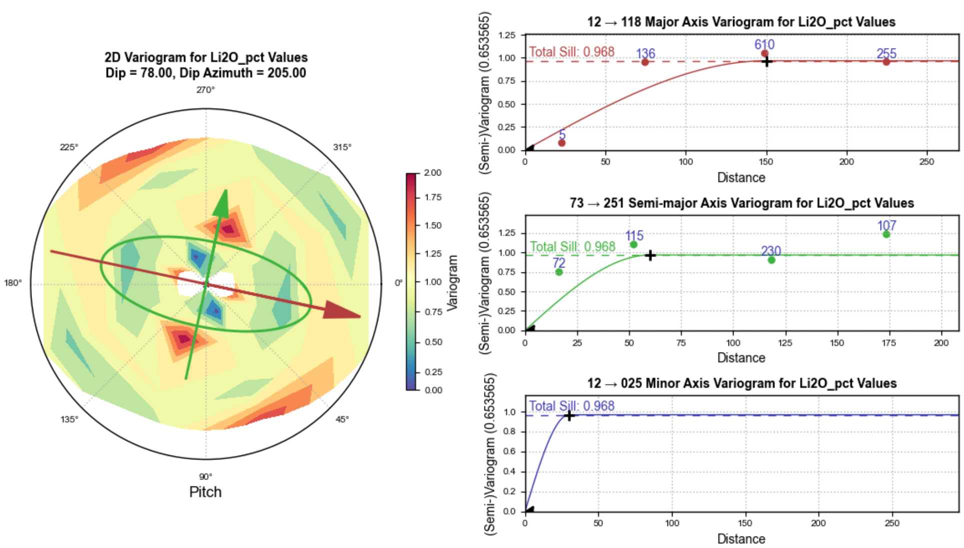
<u>Experimental Variogram Grass River Dike 3 Variogram Parameters:</u> Max Distance: 160 m, Dip Azimuth: 226 degrees, Variogram Pitch: 19 degrees, Spread Angle: 26 degrees, Spread Limit: None, Statistics: 38 samples, Mean: 0.44, Variance: 0.29, Standard Deviation: 0.54.

<u>Variogram Results:</u> Model Type: Spherical, Structure 1: Sill = 1.18, **Range =** 160 m (Figure 14-10 and Figure 14-11).



<u>Experimental Variogram Grass River Dike 4 Variogram Parameters:</u> Max Distance: 150 m, Dip Azimuth: 205 degrees, Variogram Pitch: 12 degrees, Spread Angle: 29 degrees, Spread Limit: None, Statistics: 73 samples, Mean: 1.34, Variance: 0.65, Standard Deviation: 0.80.

<u>Variogram Results:</u> Model Type: Spherical, Structure 1: Sill = 0.96, **Range =** 150 m (Figure 14-10 and Figure 14-11).



11.8 Classification

Resource classifications that are followed for SK-1300 National Reporting Standards for the U.S. are based on the SME Guide for Reporting Exploration Results, Mineral Resources and Mineral Reserves (The 2017 SME Guide).

Measured Mineral Resource

A "Measured" Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling, and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve. A Mineral Deposit or part of a deposit may be classified as a Measured Mineral Resource when the nature, quality, amount, and distribution of data are such as to leave no reasonable doubt, in the opinion of the Competent Person determining the Mineral Resource, that the tonnage, grade, geometry of production planning, and scheduling increments can be estimated within close limits and that any variation from the estimate would not significantly affect potential economic viability of individual increments (typically quarterly or smaller). This class requires a high level of confidence in, and understanding of, the geology and controls of the Mineral Deposit. A Measured Mineral Resource estimate is of sufficient quality to support detailed technical and economic studies leading to Mineral 2017 SME Guide Page 23 of 97 4282851.4 Reserves which can serve as the basis for major development decisions with no additional sampling or other geological definition required to support these decisions.

Indicated Mineral Resource

"An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling, and testing, and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve. A Mineral Deposit or part of a deposit may be classified as an Indicated Mineral Resource in a Public Report when the nature, quality, amount, and distribution of data are such as to allow the Competent Person determining the Mineral Resource to confidently interpret the geological framework and to assume physical continuity of mineralization. Confidence in the estimate is sufficient to allow the appropriate application of technical and economic parameters to prepare incremental mine plans (typically annual or phases) and production schedules and to enable an evaluation of economic viability. Overall confidence in the estimates is high, while local confidence is reasonable. The Competent Person should recognize the importance of the Indicated Mineral Resource class to the advancement of the project. An Indicated Mineral Resource estimate is of sufficient quality to support detailed technical and economic studies leading to Probable Mineral Reserves which can serve as the basis for major development decisions. In assessing continuity between points of observation, the Competent Person should consider the likely cut-off grade and geometric limits that would be used to prepare incremental (e.g., annual or phased) mine plans."

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 should not be converted directly 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. The "Inferred" class is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but the data are sufficient to allow the inference of geological (and grade or quality) continuity. An Inferred Mineral Resource can be based on interpolation between widely spaced data where there is reason to expect geological continuity of mineralization, but not excessively extrapolated from the data. The proportion of extrapolated Mineral Resource outside the nominal drill grid spacing should be limited and disclosed. Confidence in the estimate is sufficient to allow the application of assumed but not verified technical and economic parameters for conceptual planning. However, confidence is often not sufficient to allow the results of the application of these technical and economic parameters to be used for incremental planning and production scheduling. For this reason, there is no direct link from an Inferred Mineral Resource to any class of Mineral Reserves".

11.9 Factors that May Affect the Mineral Resource Estimate

This estimate is based on information and sampling gathered using appropriate techniques from DDHs. The current estimate was prepared by using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

There may be some outside factors that could impact the estimate in a material way such as:

- Estimation of a global bulk tonnage is based on a limited number of densities determinations
- Commodity pricing assumptions
- Metal recovery assumptions
- Mining and processing cost assumptions
- Assumptions that require work permits

At this time, there are no other known factors or issues that may affect the evaluation other than the normal risks that face every mining project. Issues may arise at a later date in regard to environmental, permitting, taxation, socio-economic, marketing, and political factors. ABH Engineering is not aware of any known legal or title issues that would affect this estimate in a material way.

11.10 QP's Opinion

It is the QP's opinion that the Mineral Resource Block Model is representative of the deposit and that the data is of sufficient quality to support the 2023 Mineral Resource Estimate.

This estimate could be affected by future changes in cut-off grade resulting from changes in mining costs, processing recoveries, or metal prices. It may also be affected with changes in geological knowledge as a result of new exploration data,

12. Mineral Reserve Estimate

No Mineral Reserves are reported at this stage of the project.

13. Mining Methods

The mine plan is based on mineral resources contained in two deposits: Thompson Brothers and Grass River. The deposits are located within 5km of each other and will be serviced by the same processing plant once it is built in year 2. Ore from year one of production that meets the grade threshold of 1% Li_2O for direct shipping will be sold, ore that does not meet that grade will be stockpiled next to the future mill location to be processed in year 2.

For the Grass River deposit the extraction of mineable resources will begin as a conventional open pit truck and shovel operation conducted by contract miners for the first year, then proceed to underground production for the rest of the mine life with its own workforce. Mining of the underground portion of the deposit will be done using the longhole stoping mining method starting from the bottom up and on retreat with uncemented backfill. A fully electrified equipment fleet consisting of articulated trucks and LHDs will be used.

For the Thompson Brothers deposit, the extraction of mineral resources will be done using the same underground production method and equipment as for the Grass River deposit (longhole stoping from bottom up on retreat with uncemented backfill). There will be no open pit extraction for the Thompson Brothers deposit.

The project is planned to achieve extraction of 9.78 Mt of ore at an average grade of 0.84% over the 9-year mine life. Table 13-1 shows the summary of the in-pit and in-stope resources from each deposit at respective cut-off grades. Economic cut-off grades vary between the open pit and underground sections.

Table 13-1: In-pit and In-stope resources at respective cut-off grades.

Grass River Open Pit	0.05% Li_2O cutoff	
Ore	624	kt
Grade	0.91	%
Grass River Underground	0.3% Li_2O cutoff	
Ore	1796	kt
Grade	0.79	%
Thompson Brothers Underground	0.3% Li_2O cutoff	
Ore	7355	kt
Grade	0.85	%
Total	0.3% Li_2O cutoff	
Ore	9776	kt
Grade	0.84	%

Both deposits are located on relatively flat topography with the deposits separated by the Grass River. Development of the open pit of Grass River deposit will require removal of overburden which will be stored for later use during the reclamation phase. The open pit and underground were modelled separately, and the mining schedules for each deposit were combined to create the overall combined mining schedule.

13.1 Grass River

13.1.1 Open Pit

Mining will start as an open pit at Grass River being conducted as a conventional open pit truck and shovel operation utilizing a mining contractor with its own equipment. Surface mining will be done over the course of a year, with the final pit limits reached at the end of the first year of production.

The grass river ore body consists of 4 distinct dikes and mining will start with 4 starter pits with 3 of the pits merging into a larger one. One of the dikes is located far enough away from the other 3 to maintain a separate pit. The final pit limits at the end of year 1 are shown Figure 13-1.

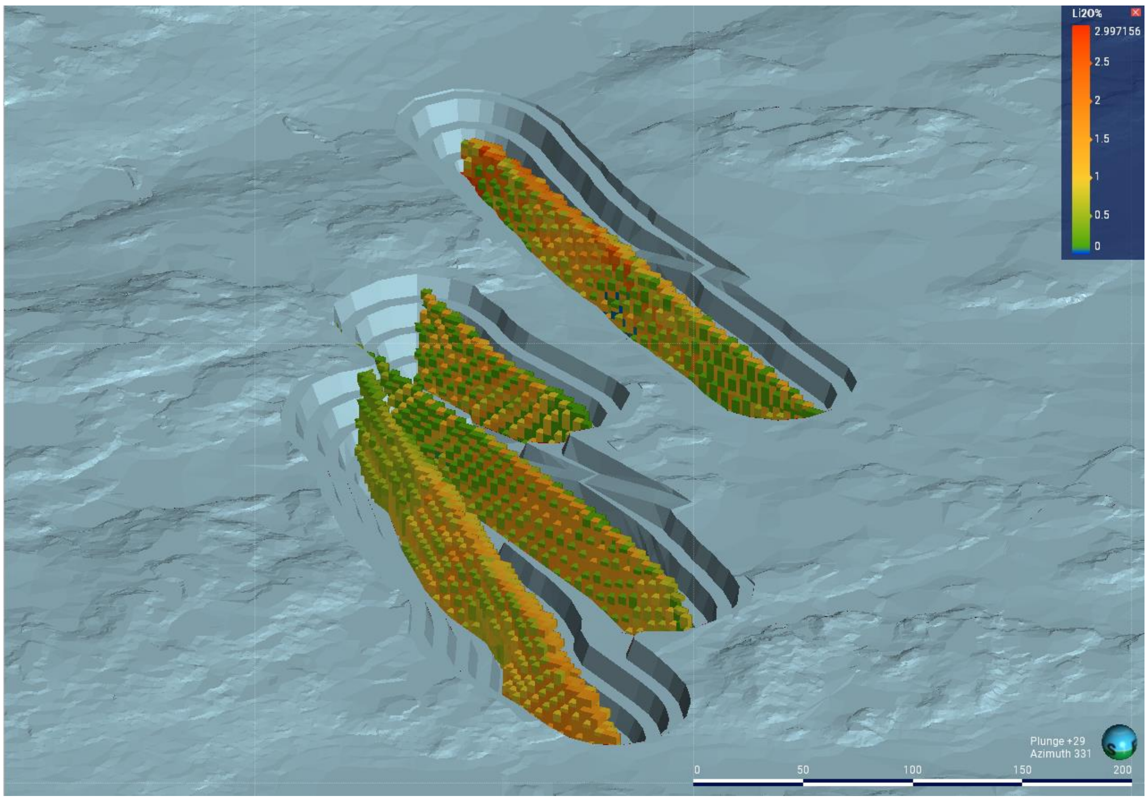


Figure 13-1: Ultimate Pit Limits.

To minimize the amount of waste material mined, two different in-pit haul road sizes will be used at different stages of the pit production. The initial haul roads will be sized to accommodate two-way traffic for CAT 770 or equivalent at a 17m width, with the final pushback to be conducted in the last months using the purchased electric articulated 40t, trucks which will later be used for underground production, paired to smaller excavators. The final pit sequence will require a road width of 7m for two-way traffic. The maximum grade of the initial haul road will be 10%, and of the final haul road will be 15%.

Ore from the pit that meets the quality requirements of 1% Li_2O will be shipped and sold directly. Ore material that is below the 1% Li_2O threshold will be stockpiled at a location next to the planned mill site.

Open Pit Key Design Criteria

The following inputs were used for mine planning and design of the open pit:

- Resource models are based on a block model populated using ordinary Krieging estimation.
- Blocks reflect the smallest mining unit for mining selectivity of 4m x 4m x 4m.
- Measured, indicated, and inferred class mineral resource estimates are included in pit optimizations.
- Stockpiles, waste piles, haul roads and other infrastructure were planned to minimize land and water body disturbance, and to minimize haulage distances.

Cut – Off Grades

The economic cut-off grades used for the pit design varies from the economic cut-off grade used for underground mine design. The cut-off grade chosen is the Li_2O grade required to pay for the mining costs, ore sorting, subsequent processing and G&A costs. The cut-off grade was based on a final 6% Li_2O spodumene product that would be produced by the mill in year 2 and onwards. The economic inputs used as a basis for the cutoff grade are:

- 6% Li_2O concentrate price - $3,500/t
- 1% Li_2O DSO price – $504/t
- Process Recovery at Cut-off - 90.1% Li_2O
- Process Costs - $15.82/t
- G&A Costs - $1.50/t
- Contract Mining Costs – $4.85/t
- Haulage for 1% Li_2O DSO - $99.97/t

- Haulage for 6% Li_2O Concentrate - $15.02/t

A cut-off grade of 0.05% Li_2O was chosen for the initial mine modelling of the open pit of Grass River.

Dilution

A 10% mining dilution factor was applied to the open pit material to account for mixing of ore and waste during the mining process.

Pit Slopes

An overall slope angle of 45 degrees was chosen and is deemed sufficient for the preliminary design. Mining will utilize 10m high benches with a bench face angle of 71 degrees and 6.5m wide safety benches. To determine the safe overall slope angles for the pit, benchmarks consisting of nearby properties, research data, internal data were used. A more detailed geotechnical assessment will be required for further stages of the project.

Pit optimization

Pit optimization was conducted with Genesis software using the dressed cones method. This algorithm uses the Lithium grades, and specific gravity combined with the economic inputs to give each block a cost and revenue. The algorithm then uses the engineering parameter to select an optimal order in which the blocks should be mined. The pit shells were generated from the ordering of the blocks based on the cumulative economics of all the blocks that must be mined prior to the final block. This optimized block order was then compared with the profit for each block if it were mined using underground methods, and the optimal transition point from open pit to underground was chosen that maximizes NPV, with the additional requirement of ensuring that there is sufficient cash flow from the open pit's direct-ship operation to pay for the processing plant's CAPEX. Table 13-2 shows the parameters that were used for the pit optimization.

Table 13-2: Pit Optimization Inputs

Item	Value	Unit
Mining Cost – Open Pit	4.85	$/t
Processing Cost	15.82	$/t
G & A Cost	0.50	$/t
Processing Recovery	90.1	%
Average Sorter Recovery	83	%
Mining Cost - Underground	33.46	$/t

13.1.2 Underground

The mining method selected will be a bottom-up longitudinal longhole stoping on retreat with uncemented backfill consisting of filtered, dewatered tailings mixed with ore sorter reject material. This backfill will form a suitable working surface for LHDs and haul trucks as mining proceeds upward. Figure 13-2 shows the underground development around Grass River.

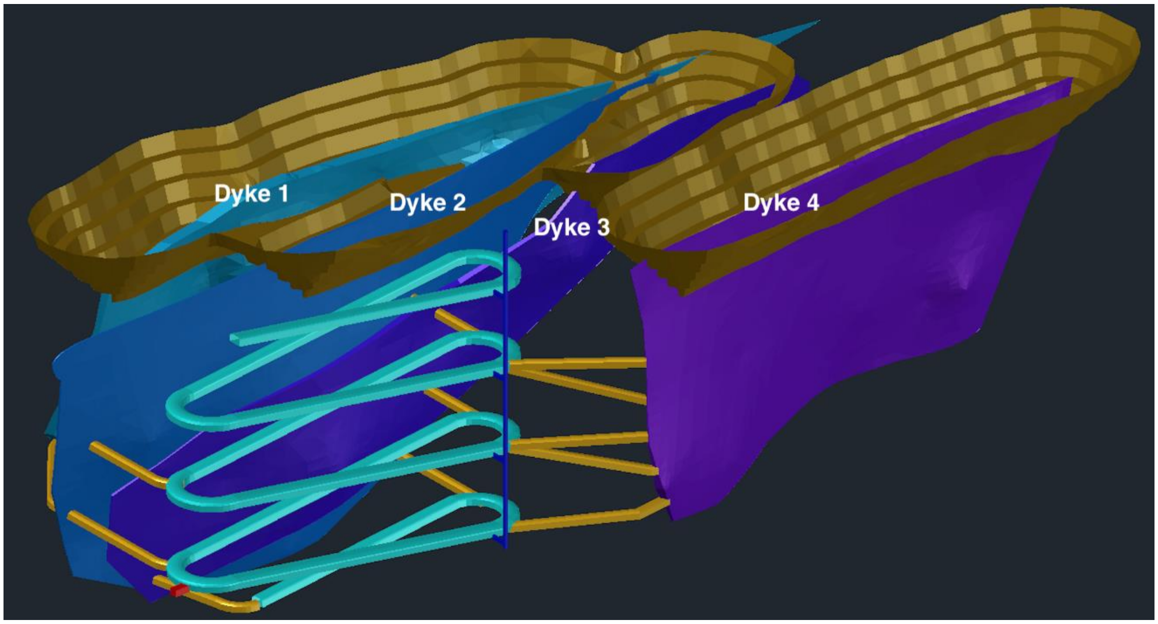


Figure 13-2: Grass River underground development and ore bodies.

The ore bodies are contained in competent metamorphosed greywacke and diorite host rock, are fairly uniform and have a steep dip varying from 66° to vertical. Widths range from 1m to 15m and an average width of about 7m making the selected mining method well–suited to this deposit.

As the pit is being mined on the surface, the necessary pre-production development will be conducted in the pre-production year, year 1, and part of year 2. While development of the ramp, vent raise and haulage drifts finishes in the first 4 months of year 2, the mill will be fed by stockpiled material originally sourced from the open pit.

To maximize the ore recovery, larger stope blasts with additional dilution are planned. This additional dilution is a minor issue as all the ore recovered from underground will go through an ore sorting system which is effective in removing the additional waste. Dilution and recovery for this mining method is estimated respectively at 25% and 95%.

Underground levels are matched to the stope heights and are spaced at 25m starting at level 140 and 115 for Dikes 1 and 4. Dikes 2 and 3 will start at level 85. All dikes will be mined up from the bottom levels to level 215. Stopes will be 25m in height, have a minimum width of 4m and a maximum width of 15m.

A main decline allowing two-way traffic was chosen as the main means of haulage and underground access. The maximum grade of the main decline will be 15% with dimensions of the cross-section of 9.5m width by 5m height. The main decline will also serve as the air exhaust for purposes of ventilation. The speed on the ramp will be limited to a maximum of 20km/h for vehicles going down and 15 km/h for vehicles going up.

Ore and waste will be transported using 40-tonne electric articulated trucks paired with 14- tonne electric LHDs. Backfill formed from tailings filter cake mixed with the coarse particles of the ore sorter rejects will be transported underground using the same trucks.

Haulage drifts will have dimensions of 5m width x 5m height with a 1% grade towards the ramp to assist in dewatering where the water will drain into a sump located at the main ramp of each level. The haulage drifts are sized for one-way haul truck traffic. Speeds within the haulage drifts will be limited to 20km/h with passing bays every 100m. The chosen mining method is longitudinal, with most of the haulage drifts to be driven through the ore.

A refuge station will be located at the 115 level of the main decline.

A crown pillar of 15m will be left in place, which will be retrieved after each respective dike finishes mining. Dike 1 and Dike 4 will finish being mined in year 2, with crown pillar retrieval in the same year. Mining of Dikes 2 and 3 will be complete year 9 with the crown pillar retrieval performed in the same year. Once the crown pillars have been recovered, the northern pit and sections of the southern pit corresponding to Dikes 1 and 4 may be backfilled with tailings and sorter reject material. Table 13-3 shows the parameters used for underground mine design.

A crown pillar of 15m will be left in place, which will be retrieved after each respective dike finishes mining. Dike 1 and Dike 4 will finish mining in year 2, with crown pillar retrieval in the same year. Dikes 2 and 3 will finish mining in year 9 with crown pillar retrieval in the same year.

Once the crown pillars has been retrieved, the northern pit and sections of the southern pit corresponding to Dikes 1 and 4 may be backfilled with tailings and sorter reject material. Two stopes at the same time are planned to be in production at the Grass River: one stope per dike. In year 8 when mining of Grass River resumes, only one stope at a time will be in production at the Grass River, with the other stope in production at Thompson Brothers.

Table 13-3: Underground design parameters.

Parameter	Unit	Value
Main Ramp		
Grade	%	<15
Width	m	9.5
Height	m	5
Advance Rates	m/month	122
Max Vehicle Speed - Up	km/h	15
Max Vehicle Speed - Down	km/h	20
Haulage Drifts - Through Waste		
Grade	%	<1
Width	m	5
Height	m	5
Advance Rates	m/month	122
Max Vehicle Speed	km/h	20
Vent Raise		
Diameter	m	3
Stope		
Width	m	4 to 15
Height	m	25
Dilution	%	25
Recovery	%	95

Ventilation

An all-electric mining fleet will be used except for the utility pick-up trucks and other ancillary equipment. The ventilation system has been designed to allow equipment with a total diesel engine power of 1350kW at any one time underground. This will require 60.4m3/s of fresh air. The ventilation system was designed to provide 85m3/s of fresh air. In the winter months heating of the intake air to above 0 °C will be done.

A 3m wide vent raise will be the air intake and provide fresh air. It will be fitted with a manway as a means of secondary egress. The main ramp will serve as the air exhaust. The ventilation system used will be a positive pressure system, with a construction on the surface at the vent raise containing the required ventilation and heating system equipment.

Hydrology and Dewatering

Due to the widespread presence of surface water including a major river and numerous lakes and wetlands nearby, the inflow of water into the mine workings are expected to be moderate. Sumps will be located at the main ramp on each level of the underground workings, and haulage drifts will have a 1% grade to drain water into each sump. Pumps will be located at each sump with a main pump located at the portal on the surface. Water will be pumped to the retaining pond located next to the processing plant to be used in processing, with the excess treated and discharged. No hydrology studies have been conducted, and a detailed hydrological investigation will need to be done for future studies.

Geotechnical Parameters

Geotechnically, the rock is fairly competent. Ore body material consists mostly of spodumene, quartz, feldspar and mica pegmatite. The host rock consists mostly of metamorphosed Monzonite and Andesite. Ground support will include bolting and application of shotcrete where appropriate. Detailed geotechnical investigations will need to be conducted for future studies, and for detailed ground support design.

13.2 Thompson Brothers

The Thompson Brothers deposit will be mined entirely using underground methods. No surface infrastructure aside from an access portal, waste rock dump, haul road and a building housing ventilation equipment at the top of the vent raise will be required at the deposit.

13.2.1 Underground

The same mining method as for the Grass River deposit of bottom-up longitudinal longhole stoping on retreat with uncemented backfill will be used. Figure 13-3 shows the underground development around Thompson Brothers.

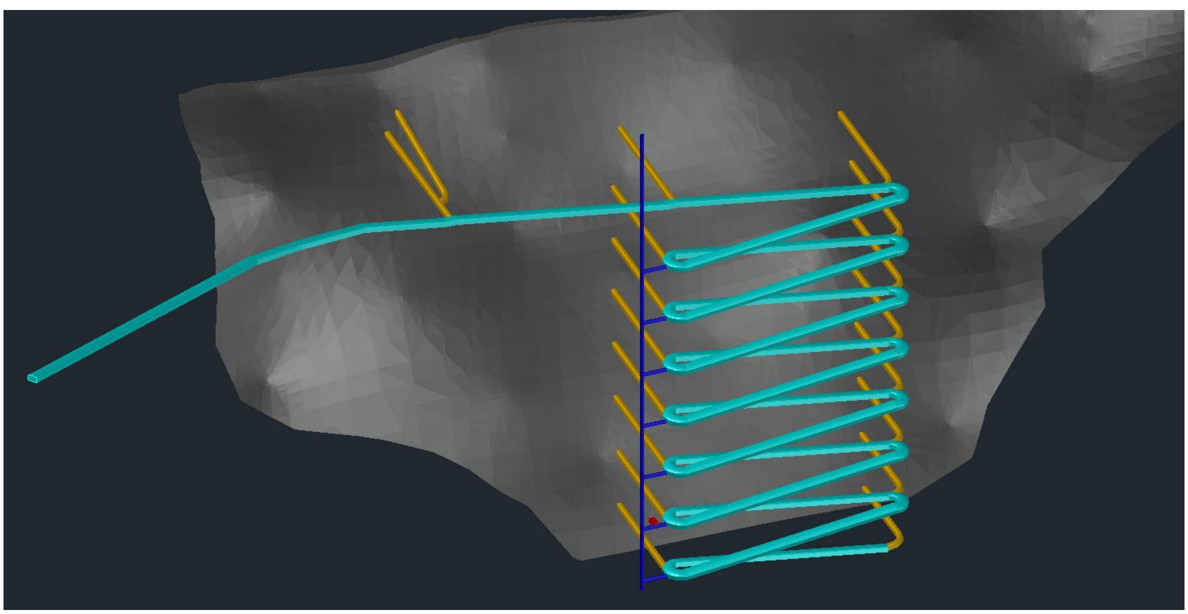


Figure 13-3: Thompson Brothers underground development and ore body.

The ore body has overall a straight shape and a steep dip varying from 77° to vertical. Width ranges from 2m to 15m, with an average width of about 12m making the selected mining method well suited to this deposit.

To maximize ore recovery, larger stope blasts with additional dilution are also planned. This additional dilution is a minor issue as all the ore recovered from underground will go through an ore sorting system which is effective in removing the additional waste. Dilution and recovery for this mining method is estimated at 25% and 95% respectively.

Mining will start at level -205 and go upwards until level 215 is reached at which point mining of the Thompson Brothers deposit has finished. This will leave crown pillar with a minimum thickness of 15m. The crown pillar will not be retrieved. Underground levels are matched to the stope heights and are every 25m starting at level –205 with the exception of the top level with a reduced height of 20m.

Mining of the Thompson Brothers deposit will begin in year 3 after Dikes 1 and 4 of Grass River have been mined out. This will allows for sufficient time for the main ramp and haulage drifts of Thompson Brothers to reach the bottom level of the ore body. The equipment used will be relocated from Grass River and used in Thompson Brothers until year 8 when the equipment will be moved back to Grass River to complete the mining of the Dikes 2 and 3 in years 8 and 9. The stopes will also have a minimum width of 4m and a maximum width of 15m. Two stopes at the same time are planned to be in production at the Thompson Brothers from years 3 to year 7. In year 8, only one stope will be in production at the Thompson Brothers, with the other stope in production at Grass River.

The main decline and haulage drifts will be designed similarly to the development as Grass River.

A main decline accommodating two-way traffic was chosen as the main means of haulage and underground access. The maximum grade of the main decline will be 15% with dimensions of the cross-section of 9.5m width by 5m height. The main decline will also serve as the air exhaust for purposes of ventilation. The speed on the ramp will be limited to a maximum of 20km/h for vehicles going down and 15 km/h for vehicles going up. A refuge station will be located at the -130 level of the main decline.

Ore and waste will be transported using 40-tonne electric articulated trucks loaded by 14-tonne electric LHDs. Backfill in the form of filter cake formed from tailings mixed with coarse particles of ore sorter rejects will be transported using the same trucks.

Haulage drifts will have dimensions of 5m width x 5m height with a 1% grade towards the ramp to assist in dewatering where the water will drain into a sump located at each level. The haulage drifts are sized for one-way haul truck traffic. Speeds within the haulage drifts will be limited to 20km/h with passing bays every 100m. The chosen mining method is longitudinal, with most of the haulage drifts to be driven through the ore body. Table 13-4 shows the parameters used for the underground mine design.

Table 13-4: Underground design parameters.

Parameter	Unit	Value
Main Ramp		
Grade	%	<15
Width	m	9.5
Height	m	5
Advance Rates	m/month	122
Max Vehicle Speed - Up	km/h	15
Max Vehicle Speed - Down	km/h	20
Haulage Drifts - Through Waste		
Grade	%	<1
Width	m	5
Height	m	5
Advance Rates	m/month	122
Max Vehicle Speed	km/h	20

Vent Raise		
Diameter	m	3
Stope		
Width	m	4 to 15
Height	m	25
Dilution	%	25
Recovery	%	95

Haulage drifts will have dimensions of 5m width x 5m height with a 1% grade towards the ramp to assist in dewatering where the water will drain into a sump located at each level. The haulage drifts are sized for one-way haul truck traffic. Speeds within the haulage drifts will be limited to 20km/h with passing bays every 100m. The chosen mining method is longitudinal, with most of the haulage drifts to be driven through the ore body.

Ventilation

A similar ventilation system as that of Grass River will be used for Thompson Brothers.

An all-electric mining fleet will be used except for the utility pick-up trucks and other ancillary equipment. The ventilation system has been designed to allow equipment with a total diesel engine power of 1350kW at any one time underground. This will require 60.4m3/s of fresh air. The ventilation system was designed to provide 85m3/s of fresh air. In the winter months heating of the intake air to above 0 °C will be done.

A 3m wide vent raise will be the air intake and provide fresh air. It will be fitted with a manway as a means of secondary egress. The main ramp will serve as the air exhaust. The ventilation system used will be a positive pressure system, with a construction on the surface at the vent raise containing the required ventilation and heating system equipment.

Hydrology and Dewatering

As with the Grass River deposit, a similar water handling system will be used. Due to the widespread presence of surface water including a major river and numerous lakes and wetlands nearby, the inflow of water into the mine workings are expected to be moderate. Sumps will be located at the main ramp on each level of the underground workings, and haulage drifts will have a 1% grade to drain water into each sump. Pumps will be located at each sump with a main pump located at the portal on the surface. Water will be pumped to the retaining pond located next to the processing plant to be used in processing, with the excess treated and discharged. No hydrology studies have been conducted, and a detailed hydrological investigation will need to be done for future studies.

Geotechnical Parameters

The overall geotechnical characteristics of the rock are the same as described for the Grass River deposit (fairly competent). Dike material consists mostly of spodumene, quartz, feldspar and mica pegmatite. The host rock consists mostly of medium-to-highly metamorphosed Greywacke and Conglomerates. Ground support will include bolting and application of shotcrete where appropriate. Detailed geotechnical investigations will need to be conducted for future studies, and for detailed ground support design.

13.2.2 Mining Equipment

Open pit production at the Grass River deposit will mostly utilize a surface mining fleet typical of open pits in North America. The mining method used will be a conventional truck and shovel system. The fleet will be owned, provided and operated by a mining contractor. The surface mining equipment will not be purchased, and it will be the responsibility of the contractor to provide and select the suitable equipment to match the planned production of 3.28 Mt of ore and waste in year 1 while respecting the mine design and haulage road design criteria. During the last months of open pit production some of the underground truck fleet will be utilized to minimize the size of the in-pit haul roads and thereby reduce the stripping ratios of the open pits.

Underground production will utilize an Owner’s mining equipment fleet. The fleet will be fully electrified to reduce the ventilation requirements and related expenses. The fleet will be typical of one used for a longhole stoping mining method. The selected equipment is based on a target production of 1.35 Mt of ore per year from the underground workings which corresponds to a

2,500 tpd feed to the mill after being sorted. The average feed to the sorting plant is 3000tpd. Table 13-5 lists all of the production and ancillary mining equipment which will be required for the mine operations, and the years in which this equipment is planned to be purchased. Due to the short mine life, a fleet replacement part way through the mine life will not be required.

Table 13-5: Mining equipment list.

Year 0	# of Units
ANFO Loader Trucker	1
Backhoe	1
Dual Boom Jumbos	2
Electric 14 Tonne LHD	2
Electric 40 Tonne Truck	2
Grader	1
Personnel Carrier	2
Rock Bolter	1
Rubber Tire Dozer	1
Scissor Lift	2
Shotcrete Sprayer	1
Track Dozer	1
Utility Truck	6
Water Truck	1

Year 1	# of Units
Anfo Loader Truck	1
Dual Boom Jumbo	1
Electric 14 Tonne LHD	2
Electric 40 Tonne Truck	3
Personnel Carrier	1
Production Stope Drill	2
Rock Bolter	1
Shotcrete Sprayer	1

13.2.3 Mining Schedule

The production schedule by year, pit and phase is shown in Table 13-6, Table 13-7, Table 13-8, Table 13-9, Table 13-10 and Figure 13-4. Table 13-10 gives the total production schedule by resource classification. Grass River will start as an open pit operation for the first year, directly shipping ore that meets the minimum threshold grade of 1% Li2O and stockpiling the remainder to await the construction of the mill. Initial production during year 1 is such that the revenues from material that is direct shipped will be sufficient to pay for the construction of the processing plant as well as for part of the underground pre-development at Thompson Brothers and Grass River.

Table 13-6: Production Totals for Underground and Open Pit Operations

Description	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Totals
Ore Mined	'000 tonnes		624	932	1,353	1,362	1,327	1,283	1,237	1,249	411	**9,776**
Waste Mined	'000 tonnes	289	2,997	260	22	23	22	21	21	13	-	**3,380**
Total Mined	'000 tonnes	289	3,621	1,192	1,375	1,384	1,349	1,304	1,258	1,262	411	**13,156**
Lithium Mined	'000 tonnes Li_2O		5.66	7.39	10.43	10.32	11.05	10.44	12.56	11.66	2.54	**82.05**
Average Mined Diluted Grade	% Li_2O		0.91	0.79	0.77	0.76	0.83	0.81	1.02	0.93	0.62	**0.84**

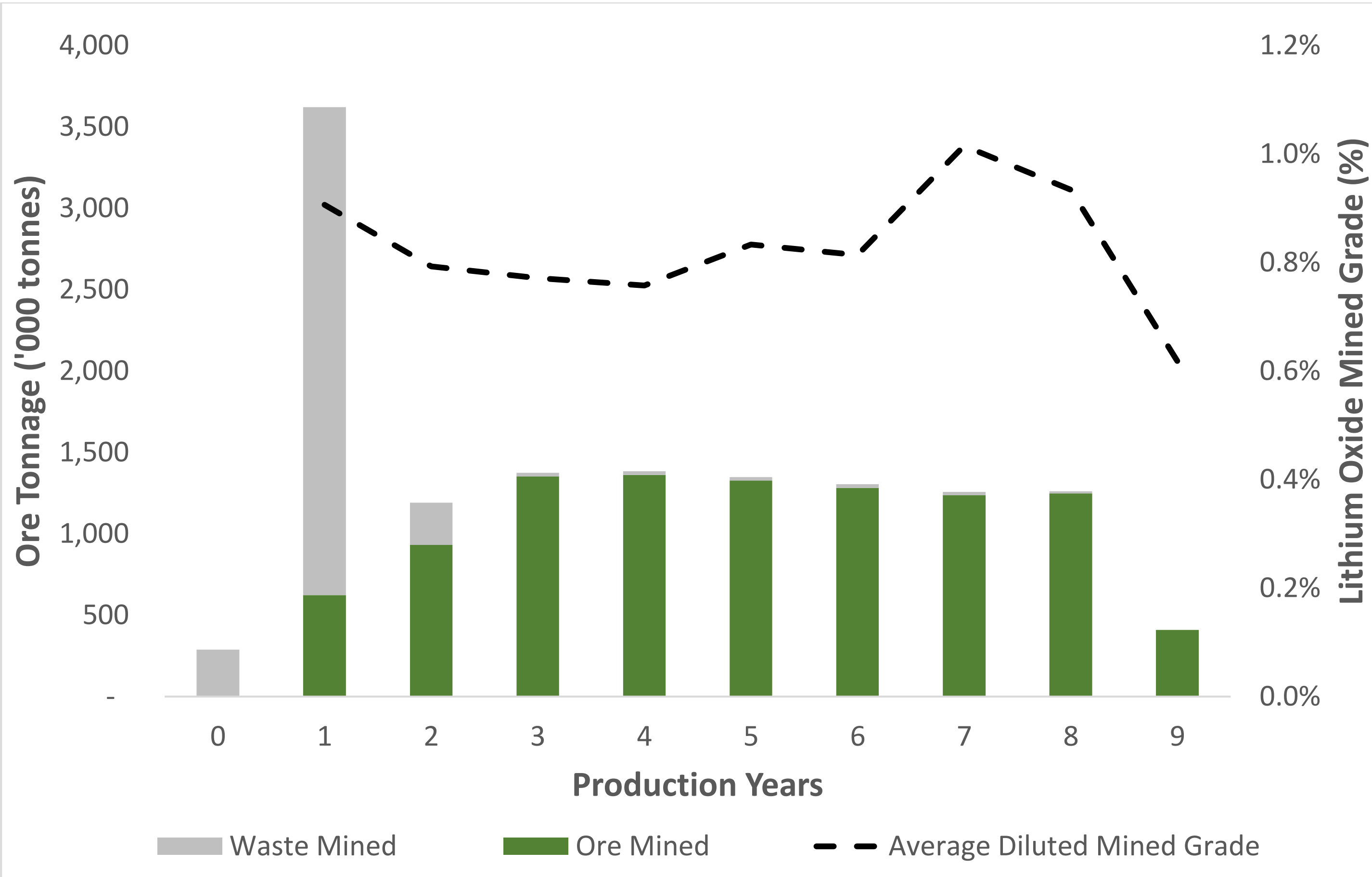


Figure 13-4: Production Totals for Underground and Open Pit Operations

Table 13-7: Grass River Open Pit Production Schedule

Description	Unit	Year 1
Ore Mined	**'000 tonnes**	**624.0**
Waste Mined	**'000 tonnes**	2,660.8
Lithium Mined	**'000 tonnes Li_2O**	5.7
Stripping Ratio		4.3
Average Mined Grade (%Li_2O)	**%**	0.91%
Total Tonnage	**'000 tonnes**	3,284.9

Table 13-8: Grass River Underground Production Schedule

Description	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Ore Mined	**'000 tonnes**			932.1						454.3	410.6	1,797.0
Waste Mined	**'000 tonnes**	102.5	149.7	66.0								318.2
Lithium Mined	**'000 tonnes Li_2O**			7.4						4.0	2.5	13.9
Average Mined Diluted Grade (% Li_2O)	**%**			0.79%						0.88%	0.62%	0.78%
Total Tonnage	**'000 tonnes**			998.1						454.3	410.6	1,862.7

Table 13-9: Thompson Brothers Underground Production Schedule

Description	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Totals
Ore Mined	'000 tonnes				1,352.6	1,361.6	1,326.8	1,282.8	1,237.2	794.2		7,355.3
Waste Mined	'000 tonnes	186.8	186.8	194.2	22.5	22.6	22.1	21.3	20.6	13.2		690.0
Lithium Mined	'000 tonnes Li_2O				10.4	10.3	11.1	10.4	12.6	7.7		62.5
Average Mined Diluted Grade (%Li_2O)	%				0.77%	0.76%	0.83%	0.81%	1.02%	0.96%		0.85%
Total Tonnage	'000 tonnes	186.8	186.8	194.2	1,375.1	1,384.3	1,348.9	1,304.1	1,257.8	807.4		8,045.3

Table 13-10: Production totals per year by resource classification

Description	Classification	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Ore Tonnage	Measured	kt	288	55	236	87	70	240	105	254	26	1,361
	Indicated	kt	269	678	869	1,233	941	982	1,132	870	245	7,219
	Inferred	kt	67	199	248	42	316	61	0	125	139	1,196
	Total	kt	624	932	1,353	1,362	1,327	1,283	1,237	1,249	411	9,776
	% Measured	%	46%	6%	17%	6%	5%	19%	8%	20%	6%	14%
	% Indicated	%	43%	73%	64%	91%	71%	77%	92%	70%	60%	74%
	% Inferred	%	11%	21%	18%	3%	24%	5%	0%	10%	34%	12%
Li_2O Grade	Measured	%	0.90%	0.93%	0.69%	0.78%	0.60%	0.75%	1.00%	0.94%	1.03%	0.83%
	Indicated	%	0.91%	0.83%	0.79%	0.76%	0.85%	0.84%	1.02%	0.95%	0.58%	0.85%
	Inferred	%	0.89%	0.63%	0.80%	0.71%	0.84%	0.72%	1.00%	0.80%	0.60%	0.76%
Contained Lithium	Measured	Kt Li_2O	2.61	0.51	1.62	0.68	0.42	1.80	1.05	2.38	0.27	11
	Indicated	Kt Li_2O	2.45	5.62	6.83	9.34	7.97	8.20	11.51	8.28	1.43	62
	Inferred	Kt Li_2O	0.59	1.25	1.98	0.30	2.66	0.44	0.00	1.00	0.84	9
	Total	Kt Li_2O	5.66	7.39	10.43	10.32	11.05	10.44	12.56	11.66	2.54	82
	% Measured	%	46%	7%	16%	7%	4%	17%	8%	20%	11%	14%
	% Indicated	%	43%	76%	65%	91%	72%	79%	92%	71%	56%	75%
	% Inferred	%	11%	17%	19%	3%	24%	4%	0%	9%	33%	11%
	Measured +Indicated*	%	89%	83%	81%	97%	76%	96%	100%	91%	67%	89%

**Measured and indicated classified mineral resources are used to calculate the cash flows in Section 19.*

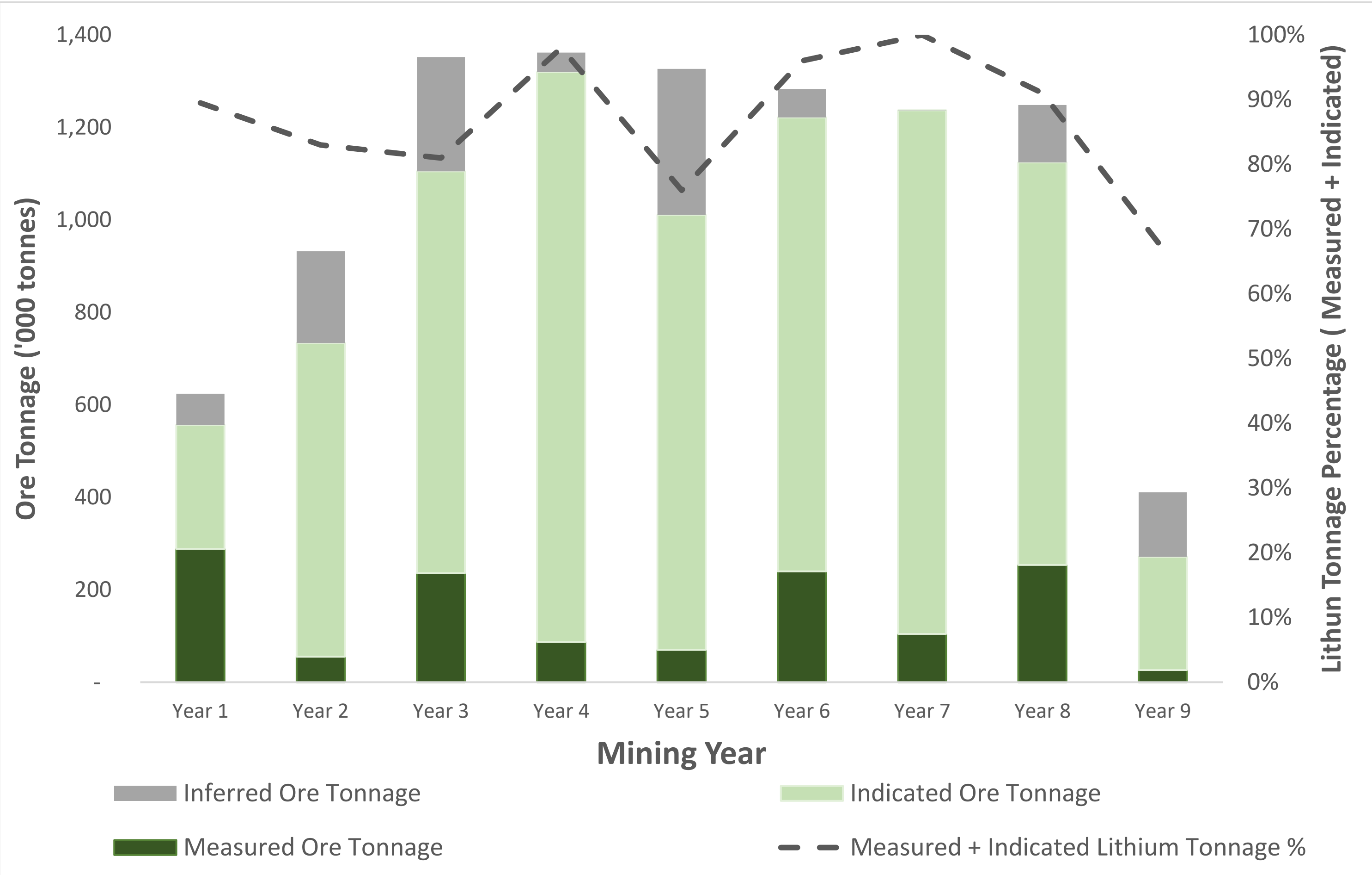


Figure 13-5: Production totals per year by Resource Classification

The stockpiled ore will all be processed in the first 4 months of year 2 as the underground pre-development of haulage drifts and ramps finishes and production from the stopes can begin in month 4 of year 2.

The production schedule for the underground was designed to allow sufficient time for the pre-development of the higher-grade deeper Thompson Brothers deposit, feeding the processing plant using the highest-grade dikes of the shallower Grass River deposit in year 2 prior to switching production fully to Thompson Brothers from year 3 to 7. O Once the Thompson Brothers completes, satisfying full production annual requirements at end of year 7, the lower-grade dikes

(2 and 3) of the Grass River deposit will be mined in years 8 and 9 with the remaining ore tonnage from Thompson Brothers in year 8.

14. Process and Recovery Methods

The processing plant will be located in between the Grass River deposit and Thompson Brothers deposit. The following section of the report will outline the recovery process for the ore fed from both deposits.

14.1 Introduction

The following sections of the report will outline the lithium oxide recovery process, and consists of descriptions of:

- Design assumptions
- Flowsheet design
- Process Description
- Product grade and recovery

In the first year of production, the material that meets the required 1% Li_2O grade is sold as Direct Shipping Ore (DSO). During the same year, the mill will be constructed and made ready for processing in the following year.

14.2 Assumptions

The design of the flowsheet is based on the lab scale test results from PMC Ltd. and SGS Lakeville for the Thompson Brothers deposit and the Grass River deposit respectively. The grade and recovery from the two deposits will be different based on the results of the two sets of tests. In addition, the ROM grade for each deposit is predicted based on the current geological interpretation and mining methods.

In addition, the design of the current circuit is based on a constant mill feed of 2500 tonnes per day. Prior to milling, the ROM material is sent to a set of two sensor-based ore sorters to preconcentrate the material. Based on the characteristic of the feed material, the percent of mass pull and mass reject varies. However, for the current stage of the study, it is assumed that the mill is fed at a constant rate. Additional optimization can be performed in the future.

14.3 Flowsheet

The flowsheet follows the interpretation of the test procedures suggested by SGS and PMC. The important procedure includes reduction in particle size, removing gangue material, removing mica and iron content and extraction of the spodumene content. The Dense Media Separation (DMS) and flotation procedure is conventional for spodumene concentration. With the including of sensor-based ore sorting, the material is pre-concentrated before being sent to the mill, creating higher mill feed grades and lower iron content.

A summary of the plant operation equipment is as follow:

- Jaw crusher
- XRT ore sorters
- Cone crusher
- Dense Media Separators (DMS)
- Ball mill
- Magnetic separators
- Desliming cyclones
- Conditioning tanks
- Flotation cells
  - Rougher cells
  - Scavenger cells
  - Cleaner cells
- Thickener
- Disk filters

The complete flowsheet of the process can be seen in Figure 14-1.

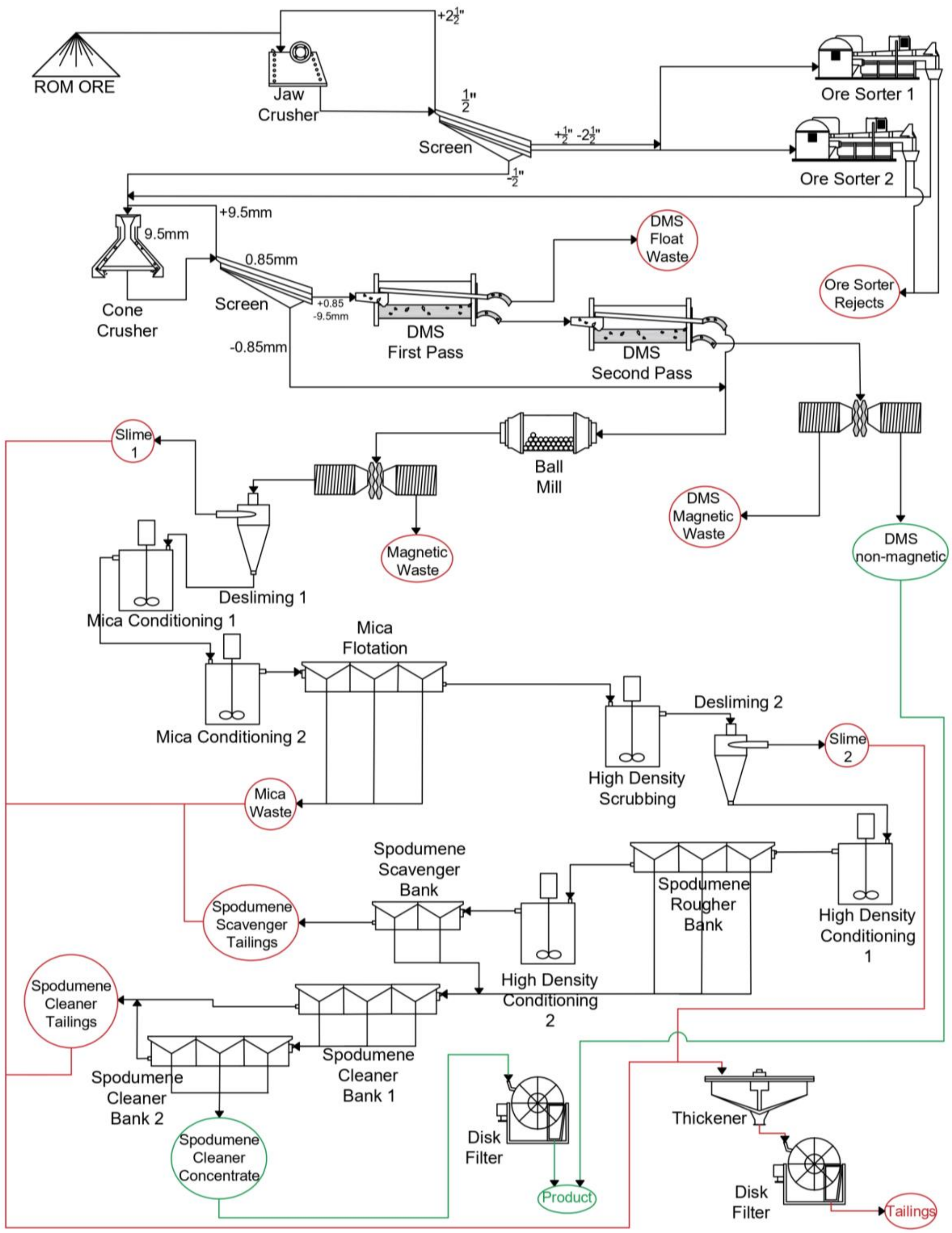


Figure 14-1: Processing flowsheet

14.4 Process Description

The plant begins with the crushing of ROM ore into smaller fragments. The crushed ore is then subjected to ore sorting, where XRT sorters are utilized to separate high-grade ore for further processing, ensuring optimal efficiency.

Following ore sorting, the pre-concentrated ore undergoes further crushing to liberate spodumene crystals dense media separation. This involves suspending the crushed ore in a dense medium, typically a ferrosilicon-based mixture, to exploit differences in density between valuable minerals and gangue materials. This first step removes waste and improves overall efficiency.

The ore floated from the DMS second pass is then finely ground via the ball mill, promoting mineral liberation by increasing the surface area of the particles. The heavy material from the second pass of DMS will be collected and sent through the magnetic separator to create a non-magnetic high grade DMS concentrate that can be sold as the final product.

To separate mica from the spodumene concentrate, flotation is employed. A desliming cyclone is placed before and after the mica flotation process to remove fines. The crushed and ground ore is mixed with water and chemicals, generating a froth that selectively floats the mica while allowing the spodumene to sink. The separated mica concentrate is collected and disposed of separately.

Dewatering is then conducted to reduce excess water content in the spodumene concentrate, employing techniques such as filtration or centrifugation. Lastly, tailings treatment is carried out to responsibly manage the waste generated during the milling process. This involves minimizing water content and potential environmental impact through techniques like thickening, filtration, and the use of tailings ponds for storage and sedimentation.

14.4.1 Material Stockpiling

In the initial year of production, the higher grade open-pit material coming from the Grass River deposit will be directly shipped as >1% Li_2O product at a lower price in comparison to the 6% Li_2O final product. In the same year, the lower grade material mined that is unsuitable for DSO standards will be stockpiled and processed once the construction of the mill is complete. The total mass stockpiled at the end of year 1 is approximately 311,175 tonnes, with an average grade of 0.5% Li_2O. The stockpile will be located on a pad next to the mill.

14.4.2 Primary Crushing

The ROM ore is first sent to a jaw crusher to reduce particle size and is dry screened, where particles greater in size than ½ inch are sent to sorters, and the fine material is by-passed to the cone crusher. Since the mill feed remains constant at 2500 tonnes per day (104 tph), the change in mass pull from the sorter will change the feed rate into the feeder. Therefore, the crusher will be operating at a capacity of 130 to 350 tph, at different sorter acceptance percentages.

14.4.3 Ore Sorting

The crushed ore material from the jaw crusher is directed towards two XRT ore sorters for pre-concentration before being sent to the mill. Prior to reaching the sorters, the crushed material is dry screened to ensure that all particles are larger than ½ inch. Any fine materials failing to meet this size requirement are considered as bypass material and allowed to proceed without sorting.

On average between the two deposits, approximately 34% of the material will be rejected by the sorters due to its low grade and high iron content. By removing these non-economical or un-recoverable material, the sorters ensure that only the valuable and economically viable ore proceeds for further milling. This grade-based rejection process optimizes the efficiency and profitability of the operation by focusing resources on the higher-grade material, thereby maximizing the overall value extracted from the ore.

14.4.4 Secondary Crushing

The cone crusher will be taking feed from the undersize sorter bypass material and the accepted mass pull coming from the two XRT sorters. The purpose of the cone crusher is to further reduce particle size to -9.5 mm. The dry screened fines of -0.85 mm will be by-passed by the DMS, while the rest will proceed to the DMS stage.

14.4.5 Dense Media Separation

DMS is used in the circuit as a method to further preconcentrate the spodumene content and remove unwanted waste material. The DMS plant will consist of two stages, where the first pass concentrates material to SG 2.7, and the second stage further concentrates the material to SG 2.9. The concentrated material in the end of the stages will be concentrate product 6% Li_2O and recovering approximately 58% for the Thompson Brothers deposit and 67% for the Grass River deposit. The concentrated material in the end of the stages will be concentrate product 6% Li_2O and recovering approximately 58% of Li_2O for the Thompson Brothers deposit and 67% for the Grass River deposit.

14.4.6 Grinding

A conventional ball mill is utilized to reduce the particle size of the DMS floated material. This grinding process aims to reduce the initial particle size (F80) from 2445 µm to a final particle size (P80) of 250 µm. The ball mill will be 7.2 m in diameter by 12.6m long mill loaded with steel grinding media. It is sized to handle 27tph of material. The ball mill product will be sent to magnetic separation for iron removal and desliming.

A conventional ball mill is utilized to reduce the particle size of the DMS floated material. The material, already concentrated through dense media separation, is fed into the ball mill. This grinding process aims to reduce the initial particle size (F80) from 2445 µm to a final particle size (P80) of 250 µm. The ball mill will be 7.2m in diameter by 12.6m long mill loaded with steel grinding media. It is sized to handle 27tph of material. The ball mill product will be sent to magnetic separation for iron removal and desliming.

14.4.7 Magnetic Separation

After grinding in the ball mill, the fine material undergoes magnetic separation to reduce the iron content. This process utilizes powerful magnetic fields to attract and separate the iron impurities from the ore. By removing the iron impurities, magnetic separation enhances the quality and purity of the final product, ensuring that it meets the desired specifications for further processing and utilization. The inclusion of magnetic separation in the milling process plays a crucial role in achieving high-grade spodumene concentrate with reduced impurities, thus improving the overall quality of the final product. In this case, the magnetic waste will be sent to a thickener and the non-magnetic material will be processed into the next step of flotation. The magnetic separation stage will also be used on the DMS concentrate to reduce iron impurity in the product.

14.4.8 Mica Processing

After removal of the magnetic waste, the non-magnetic material will be sent to the flotation circuit. The first step of the flotation process is to eliminate the mica using a dispersant and a fatty acid collector. The throughput into the mica flotation is approximately 570 tpd or 24 tph. The flotation process consists of two conditioning tanks, one rougher cell and two scavenger cells.

14.4.9 Spodumene Processing

The spodumene product will be extracted using conditioning and flotation, operating at a throughput of approximately 523 tpd or 22 tph. The pre-conditioning stage prior to flotation through the roughers consists of two conditioning tanks. In this stage, the material is treated by conditioning with methyl isobutyl carbinol (MIBC) and other fatty acid combination chemicals for approximately ten minutes at each tank. The pre-conditioned material will be processed through three rougher cells at retention times of two minutes. Later, the collected overflow material will be conditioned once again using sodium carbonate (Na_2CO_3) and frothers before proceeding on to two scavenger cells and six cleaner cells.

The collected overflow from the rougher cells will be sent to conditioning and scavenger cells and the remaining material will be sent directly to the cleaner cells. The spodumene product will be collected from the overflow from the scavenger cells and the cleaner cells.

14.4.10 Concentrate Dewatering

The spodumene concentrate has a lithium oxide (Li_2O) content of approximately 6%. This concentration level indicates the anticipated enrichment of lithium within the final product, making it suitable for future processing and utilization in various applications.

Tailings will be directed to a disk filter for dewatering. The disk filter will play a crucial role in separating the solid particles from the liquid, effectively reducing the water content in the concentrate.

14.4.11 Tailings Treatment

The tailings are collected into the thickener and dewatered using a disc filter. The tailings treatment circuit will be sized to process a feed consisting of a slurry of 40% solids at a rate of 225m^3/h, outputting 90tph of tailings filter cake which will be used for backfilling of underground workings with the excess used to backfill the open pits. The particle size of the tailings is estimated at a P80 of 250µm. The tailing streams are sourced from:

- Magnetic material from magnetic separators
- Desliming fines
- Mica flotation concentrate
- Spodumene flotation tailings

14.5 Recoveries

Recoveries of spodumene at different stages of the processing cycle is as shown in

Table 14-1 below. The recoveries utilized for the table are based on the combination of the recoveries from the Thompson Brothers and Grass River deposit based on the source of the mined and processed material.

Table 14-1: Spodumene recovery at different stages of the process.

			Years									
	Unit	**Total**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Ore Mined	Tonne	**9,776,271**		624,038	932,074	1,352,585	1,361,634	1,326,821	1,282,814	1,237,191	1,248,537	410,579
Waste Mined	Tonne	**2,660,817**		2,660,817								
Sorter Mass Pull to Product		**66%**			64%	67%	67%	69%	71%	74%	73%	50%
Sorter Recovery (%Li_2O)	%	**83%**			85%	85%	85%	86%	88%	90%	89%	84%
			Mill									
Average Mined Grade (%Li_2O)	%	**0.84%**		0.91%	0.79%	0.77%	0.76%	0.83%	0.81%	1.02%	0.93%	0.62%
Average Mill Feed Grade (%Li_2O)	%	**1.05%**			0.96%	0.98%	0.96%	1.04%	1.00%	1.23%	1.14%	1.04%
1st DMS Feed	t	5732812.403			700,927	808,359	808,443	808,408	808,405	808,420	808,475	181,375
2nd DMS Feed	t	2368182.099			289,548	333,927	333,962	333,947	333,946	333,952	333,975	74,925
Ball Mill Feed	t	1475260.98			180,374	208,020	208,042	208,033	208,032	208,036	208,050	46,674
Mica Flotation Feed	t	1475260.98			180,374	208,020	208,042	208,033	208,032	208,036	208,050	46,674
Spodumene Flotation Feed	t	1353616.653			165,501	190,868	190,887	190,879	190,878	190,882	190,895	42,826
Overall Mill Recovery	%	81%			0.905	0.770	0.770	0.770	0.770	0.770	0.820	0.905
			Product									
Lithium Mass in Mill Product	t	53954.90062			6,854	6,858	6,764	7,333	7,041	8,656	8,513	1,934
Saleable Product Mass at 1.3%	tonne	312862.5		312,863								

Saleable Product Mass at 6%	tonne	899248.3437	114,240	114,306	112,728	122,225	117,348	144,275	141,886	32,241

15. Infrastructure

The following section outlines the required infrastructure on site at Snow Lake Lithium. As seen in Figure 15-1, the layout shows the location of the processing plant, office building, water treatment plant and the power substation on site.

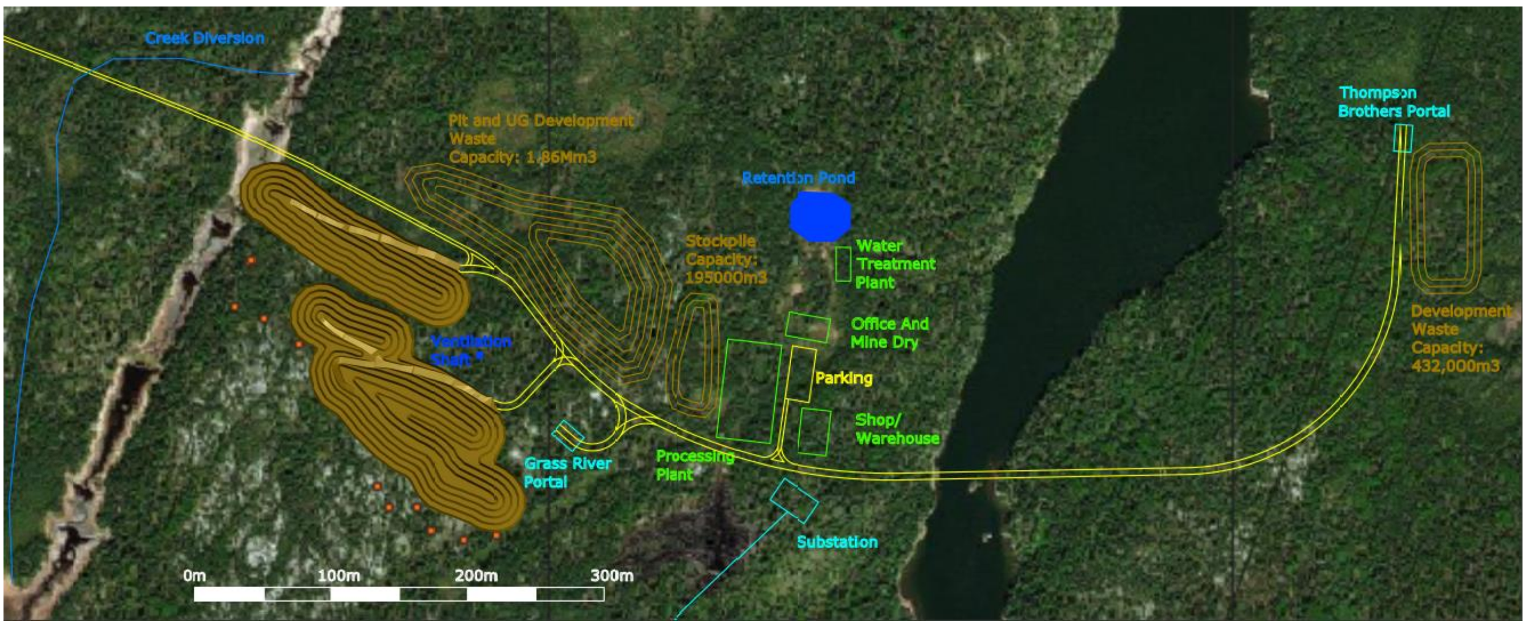


Figure 15-1: Snow Lake Lithium infrastructure layout

15.1 Access Road

The nearest roadway to the Snow Lake properties is Highway 393 located near Osborn Lake, approximately 15km north of the project site infrastructure. As of October 21st, 2022, a 7 kilometers section of the access road is available connecting from the end of Highway 393 and extending towards the south. The proposed all-weather access road will continue from the existing access road to the site infrastructure between the Thompson Brothers Lithium deposit and the Grass River Lithium deposit.

The new access road of 7 km will be constructed to the project site to allow construction and transportation of capital equipment and ongoing supplies to be delivered. The haul road will be able to allow the passing of B-doubles size trucks up to 26m long and 2.5m wide.

The province of Manitoba is known for its vast sources of fresh water and many small bodies of water scattered across the province. In between Highway 393 and the site, there are small ponds and streams that occur depending on the season and climate of the year. The ground condition of the soil near the road location as shown in Figure 15-2 Snow Lake Lithium property is scouted to be terra firma, which is considered suitable for road construction. 5 Bridges will be placed at the streams and marsh areas in between the highway and the site infrastructure. More soil study will be performed to confirm the feasibility of the road construction for the next stage of study.

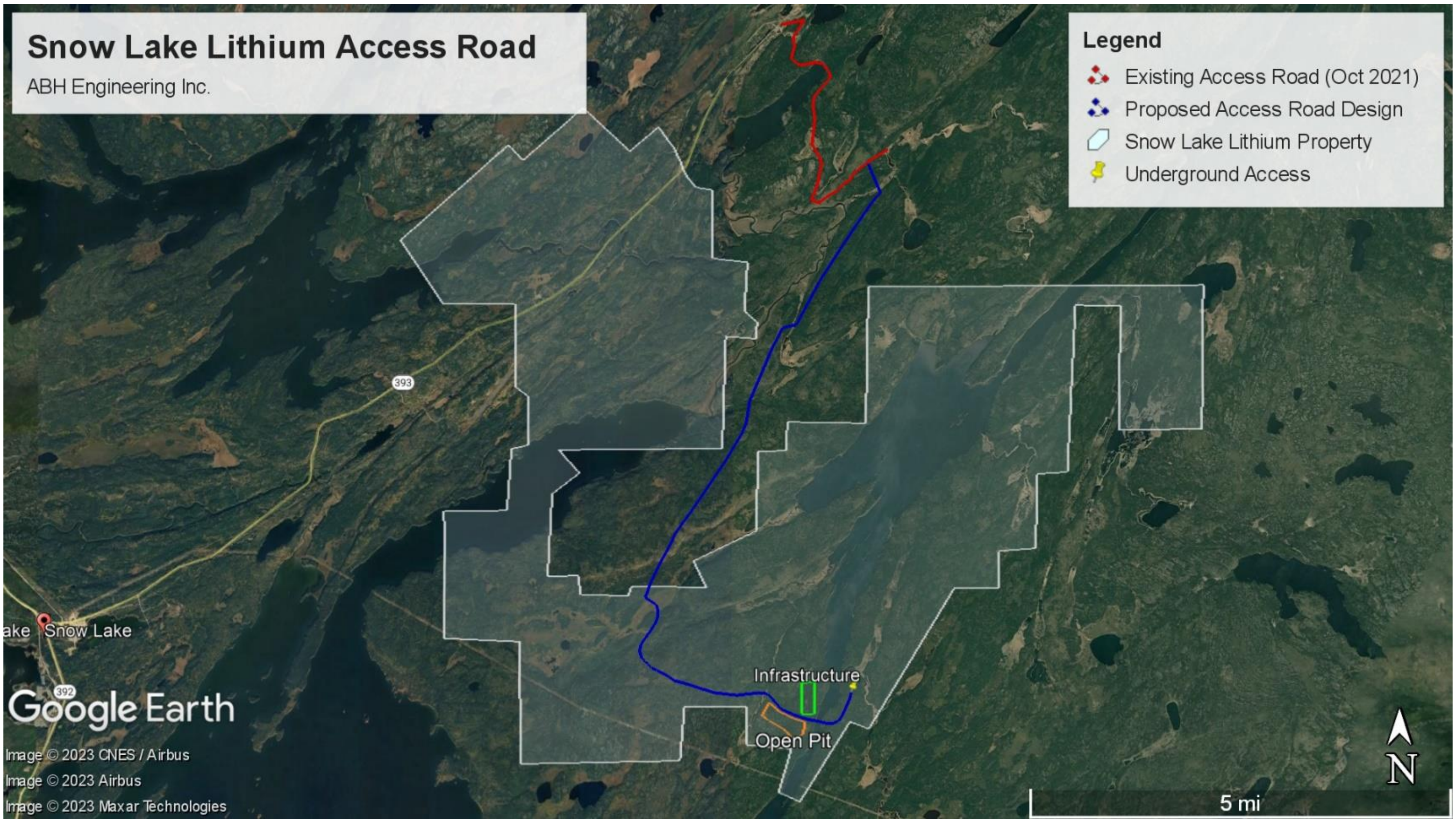


Figure 15-2: Snow Lake Lithium Access Road

A new road of approximately 7 kilometers will be constructed to the project site to allow construction and capital equipment and ongoing operations supplies to be safely delivered. This road will be designed to meet both American and Canadian standards. The road network for the Snow Lake project site will consist of a haul/service road. The road will be constructed from gravel sourced from open pit waste rock with a maximum gradient of 10%. Site roads will also be constructed using the same material meeting the same gradient requirements.

15.1.1 Road Maintenance

Most of the day-to-day maintenance of the access road will be performed by the site support crew. A dedicated motor grader will operate on the road on a Monday-to-Friday, day shift only basis. The gangue and overburden material from mining activity can be utilized as aggregate material for re-surfacing during the winter. During periods of extended adverse weather, road maintenance activities may need to be increased. Additional equipment from the site support and mining fleets may be utilized during the maintenance periods.

15.2 Buildings

The following buildings will be required:

Buildings required include the administration and mine office buildings, process plant, laboratory, reagent storage facility, combination mill shop, truck shop, warehouse, water treatment facility and storage. A refueling and lubrication area will also be included.

The office and mine dry will be placed in one building. The building will serve as offices for administration, engineering, and geology. The administration and mine offices will consist of a modular office complex sized to accommodate approximately 30 people including private and open office spaces and a conference room. The mine dry will be incorporated into the administration building. Lavatory and wash facilities will be located throughout the project site.

The laboratory will be located within the processing mill. The laboratory will include a finished steel building with a dust collection system for the sample preparation area and a ventilation system.

The mill workshop and warehouse building will be located adjacent to the process plant and will include a tool room, offices, a meeting, a break room, and a bathroom. The main building will consist of a corrugated steel roof with open sides, including a 10-ton overhead crane for maintenance activities.

To provide sufficient power to site, a substation will be constructed on site, to the south of the processing plant. The substation will be connected to the transmission line tapped into the Hydro Manitoba power station at Hurbert Lake.

The water treatment facility will be located north of the office building and processing plant to for the treatment of process water prior to disposal.

The explosives magazine for use in underground development and stoping will be located underground at each deposit. Temporary storage facilities for explosives to be used for open pit excavations and initial ramp development will be located on the surface for the first year and will be dismantled and removed in year 2.

A small facility for the storage of fuel and lubricant will be located on the surface near to the processing plant.

In addition, there will be two constructions at the ventilation shaft of each deposit housing the ventilation equipment and covering the secondary egress openings.

15.3 Power

The following section is in reference to the design study *"Snow Lake Lithium Mine Transmission Line Feasibility Design Report"* prepared by AIM Power Solutions ("AIM") that outlines the transmission infrastructure requirements for Snow Lake Lithium property. The design and financial estimates are in reference to the economic inputs and parameters presented by Snow Lake Lithium and AIM.

The Snow Lake Lithium property is located 20 km east of the town of Snow Lake. As shown in Figure 15-3, the power supply will be sourced from the Herblet Lake Substation operated by Manitoba Hydro.

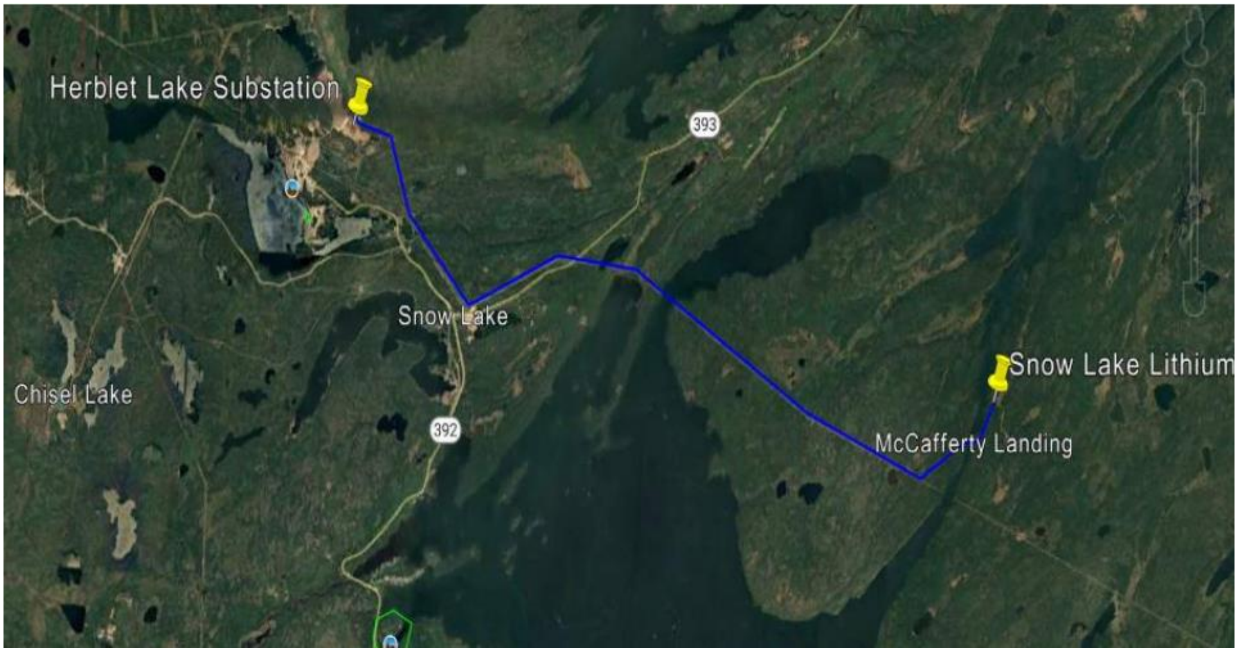


Figure 15-3: Location of Mine Site, Transmission Facilities, and Herblet Lake Substation. (AIM Report)

The preliminary power requirement estimate for the Snow Lake Lithium site is approximately 25MW of electricity. To this request, Manitoba Hydro has confirmed that 25MVA of power is available at the Herblet Lake Substation.

The initial requirement for the interconnection is the transmission of electricity by connecting a 230kV Transmission line connecting the mine site to the Herblet Lake Substation. The Manitoba hydro interconnection requirement also includes an interconnection tap station near the Herblet Lake location and a substation near Snow Lake Lithium mine like shown in Figure 15-3. The purpose of the substation is to step down the voltage from 230kV to 13.8kV. All infrastructure construction cost and maintenance for transmission line, tap station and substation are to be completed by Snow Lake Lithium.

The recommended method of power connection by AIM is to discuss the possibility of tapping directly onto the 230kV line at the location 2.5 km south of Snow Lake Lithium property on a case-by-case basis. The maximum number of taps for a 230kW transmission line is one tap per line from the interconnection tap station, and the substation on site would still be required to step down voltage to 13.8kV.

However, due to the significant decrease in the length of the transmission line, the capital cost required from Snow Lake Lithium is decreased by approximately 20 million $ USD.

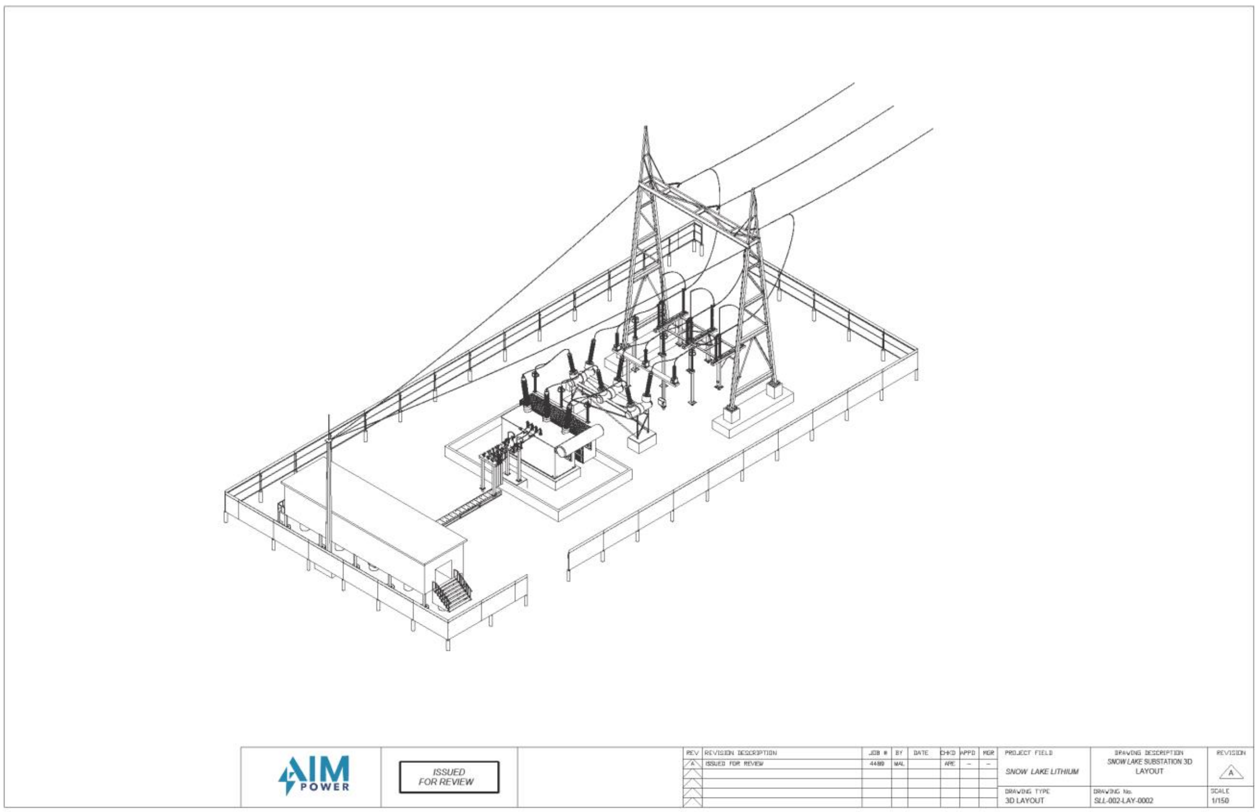


Figure 15-4: Power substation layout (AIM Report)

At the current stage of study, further permitting and detailed design work is required to be completed prior to the consideration of site construction. The estimated schedule of the construction project is approximately two years after the completion of the final permits and can be started in parallel with or prior to other site construction. Other recommendations and detailed design parameters are included in the *"Snow Lake Lithium Mine Transmission Line Feasibility Design Report"*.

15.4 Water Management

A minor creek crosses within the boundaries of the planned Grass River open pit and will require diversion. A suggested diversion channel is shown in Figure 151.

Ditches will be constructed around the mill site to divert stormwater. Water for the process plant and the supporting infrastructure will be sources from the dewatering of the underground mining activities. The underground seepage water is collected and pumped to the mill to be used for processing purposes. Additionally, water will be reclaimed from the product and the tailings streams by means of filters to be re-used in the process. Between the reclaimed water, water from surface runoff and water pumped from underground as part of dewatering there will be enough to meet the processing plant requirements.

Surface runoff from waste rock facilities and stockpiles will be collected and used within the process or sent for treatment. A temporary retention pond will be constructed and used to store water for use in the process or to await treatment in the water treatment facility. The pond will be filled and reclaimed as part of reclamation activities at the end of mine life.

There is no information available on the regional groundwater flow system. The Manitoba Water well records indicate little groundwater development near the proposed Project Site (Source: Lalor 43-101 Technical Report). There are no groundwater wells in use within a distance of at least 5 km. Potable water may be sourced from nearby Grass River and filtered and sterilized to appropriate standards for human consumption. Potable water will be stored in a storage tank on site.

15.5 Tailings and Waste Disposal

15.5.1 Tailings

For the Snow Lake Lithium project tailings ponds and associated infrastructure will not be required. All tailings produced will be dewatered using a filter and used as either backfill for the underground workings of Thompson Brothers and Grass River, or as backfill into the Grass River pits once the crown pillars have been recovered. Between the underground voids left from stoping, and the Grass River pits there is sufficient space in these locations to fit all tailings produced.

The source of the tailings include: DMS floats, magnetic separator tailings, mica concentrates, slime removal and spodumene flotation tailings. In total, approximately 1,600 tonnes per day of material are rejected by the processing circuit as tailings. The tailings are sent to the thickener and followed by disc filter to remove the excess water. The fine dewatered tailings are combined with sorter reject material to be used as backfill for underground development and stopes of the Thompson Brother deposit, backfill material for the underground development and stopes of the Grass River deposit or as backfill material placed into the open pits at Grass River.

Temporary storage of approximately 75,000 tonnes of dry tailings will be required for several months in year 2 to await until the first stope of Grass River is mined. These tailings will be stored in the same location as the ore stockpile, with tailings in the form of dry filter cake taking place of material that is withdrawn from the stockpile.

15.5.2 Waste Rock Facilities

Two separate waste rock facilities will be required for this project:

- The Grass River facility sized to accommodate 1,860,000 m3 of material located to the North of the Grass River deposit. This facility will contain coarse waste rock from the open pits in addition to waste rock from underground development through waste.

- The Thompson Brothers facility sized to accommodate 432,000 m3 of material located next to the portal to Thompson Brothers. This facility will contain waste rock from underground development through waste of the Thompson Brothers deposit.

The waste rock from these facilities will be inert: non-acid generating and non-metal leaching. The waste rock facilities will be built with slope angles of 45 degrees corresponding to the angle of repose and will be re-contoured to an appropriate angle during reclamation. Ditches around the waste rock facilities will collect run-off and send it for treatment. Utilization of waste rock as aggregate for construction of roads and infrastructure was considered but not used for sizing of the waste rock facilities.

15.6 Wastewater Treatment

After extraction, the wastewater generated exhibits relatively low levels of pollutants, but will still require a wastewater treatment plant prior to release into surface water bodies. While the wastewater may have reduced pollutant concentrations compared to other industrial sites, it is essential to implement a treatment system that ensures regulatory compliance and protects the surrounding environment. The process water is treated and stored at a water retention pond on site. This can be stored and used in future processing activities. Runoff from the waste rock dumps and stockpiles will also be collected in perimeter ditches and used in the process or sent for treatment prior to discharge. A separated water treatment plant is required to treat the domestic sewage water stream and can be recycled for non-potable usage. Lastly, a potable water treatment plant is required to purify water for consumption and lavatory purposes of the employees on site.

16. Market Studies

The Snow Lake Lithium Project is currently not in production and no sales of lithium products have been made in the past. To evaluate the lithium and spodumene market, an assessment has been conducted to outline lithium supply chain predictions, long-term forecast for EV batteries sales and demand up to year 2040, and spodumene market predictions gathered from multiple financial sources.

16.1 Lithium Supply and Demand Forecast

Lithium is the key element needed in the production of lithium-ion batteries, which are the primary power source for electric vehicles (EVs). As the transition to EVs by major car manufacturers continues to rise worldwide, so does the demand for lithium. The projection for lithium supply and demand indicates that this upwards trend is set to continue, leading to a continuous increase in the price of both lithium and its key raw material, spodumene ore, until the market demand is met.

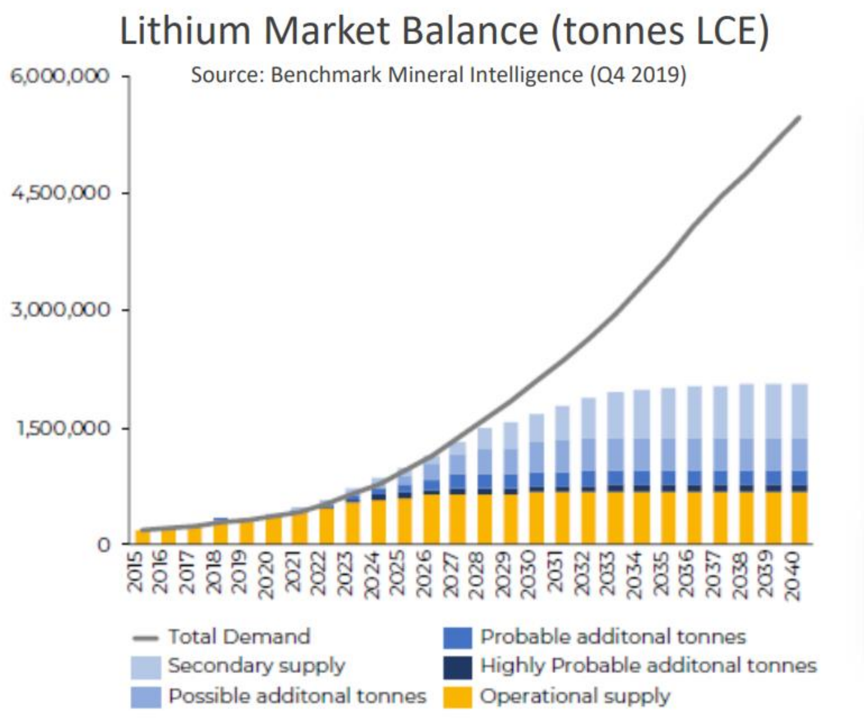


Figure 16-1 : Lithium Market Supply vs. Demand Projection

Looking at Figure 16-1 above released by Benchmark Mineral Intelligence in 2019, it is predicted that the market demand for lithium carbonate and other lithium products will not slow down by the year 2040, reaching 6 million tonnes of lithium carbonate equivalent (LCE).

A report by Bloomberg states that the demand for lithium-ion batteries is expected to go up by 11 fold between 2020 and 2030, driven by the growing purchase of EVs. This increase is forecasted to increase the demand for lithium from approximately 325,000 tons in 2020 to over 1.5 million tons by 2030. This corresponds to a compound annual growth rate of 20%, which is a significant increase compared to the 6% average growth rate in the past decade.

In addition to the EV batteries market, the need for lithium is also predicted to grow in other sectors, such as consumer electronics and renewable energy storage. Lithium-ion batteries are essential for grid-scale energy storage, providing a way to store and distribute renewable energy sources. The increasing demand for consumer electronics, such as laptops and smartphones, is also driving the need for lithium. This explains the disconnect between the price trend of lithium carbonate and spodumene seen recently. The price of spodumene is not following the downward trend in lithium carbonate price seen in the first months of 2023.

16.2 Lithium in EV Batteries

The expected growth of EV demand will keep driving up the demand for lithium. Figure 16-2 below obtained from the 2021 US Department of Energy National Blueprint for Lithium Batteries shows the projected increase of EV sales by some of the major key countries in the EV market. The US is expected to increase their EV sales by at least 10 times by the year 2040.

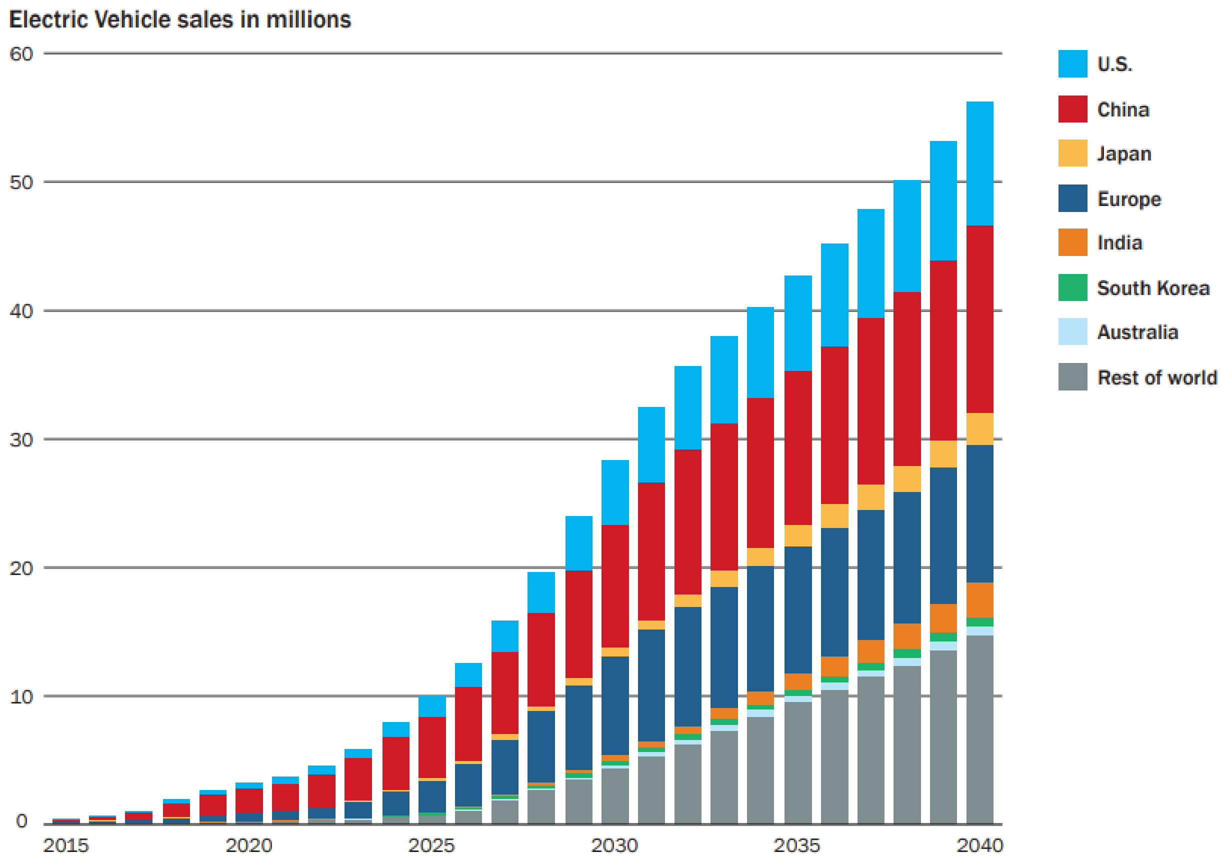


Figure 16-2: Projected Electric Vehicles Sales

Another key metric to consider is the global sales projection of battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) compared to projected market for the internal combustion engine vehicles (ICE).

Looking at Figure 16-3 below, currently the EV market makes up less than 5% of the global passenger car and light duty vehicles market. By the year 2030, the EV market share is expected to rise to above 25%, with the sales for ICE decreasing rapidly.

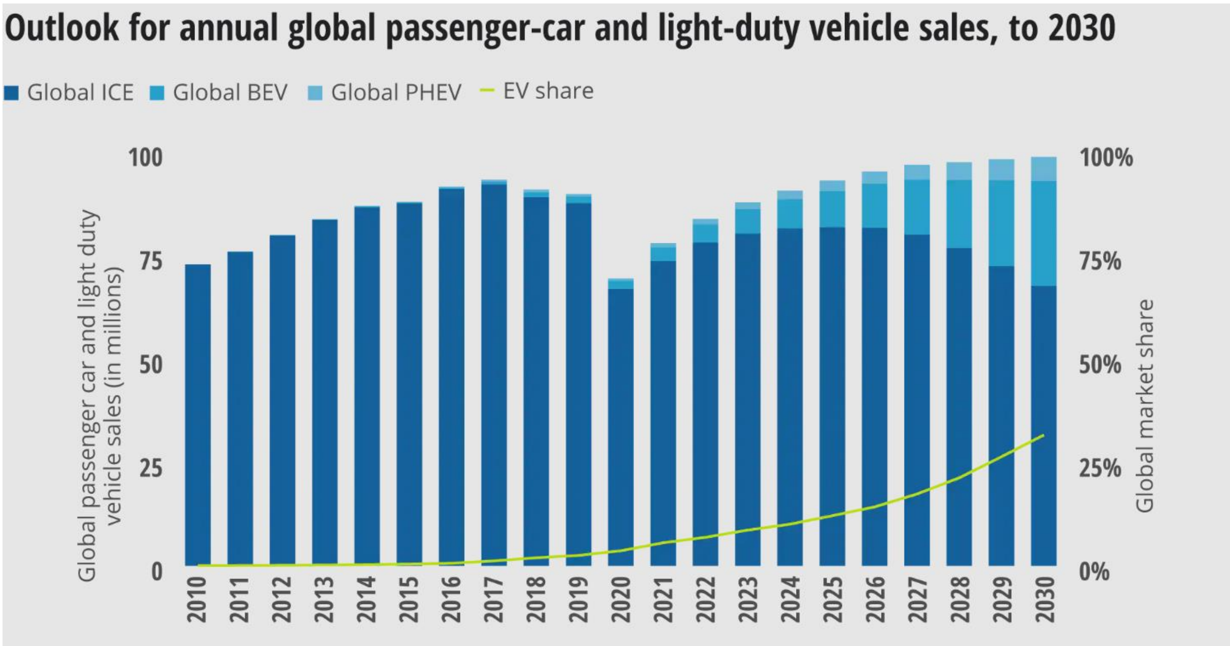


Figure 16-3: Projected Global Market Vehicles Sales for ICE and EVs.

With the expected shift in demand from ICE to electric vehicles, original equipment manufacturers (OEM) have been competing to capitalize on the new market by setting high targets for EV sales in the upcoming years. Figure 16-4 below shows the timeline for OEM targets for EV and hybrid vehicles sales. If the set targets are reached by 2030, most manufacturers will have at least 50% of their produced cars as electric, with some promising to fully switch to hybrid/electric car production.

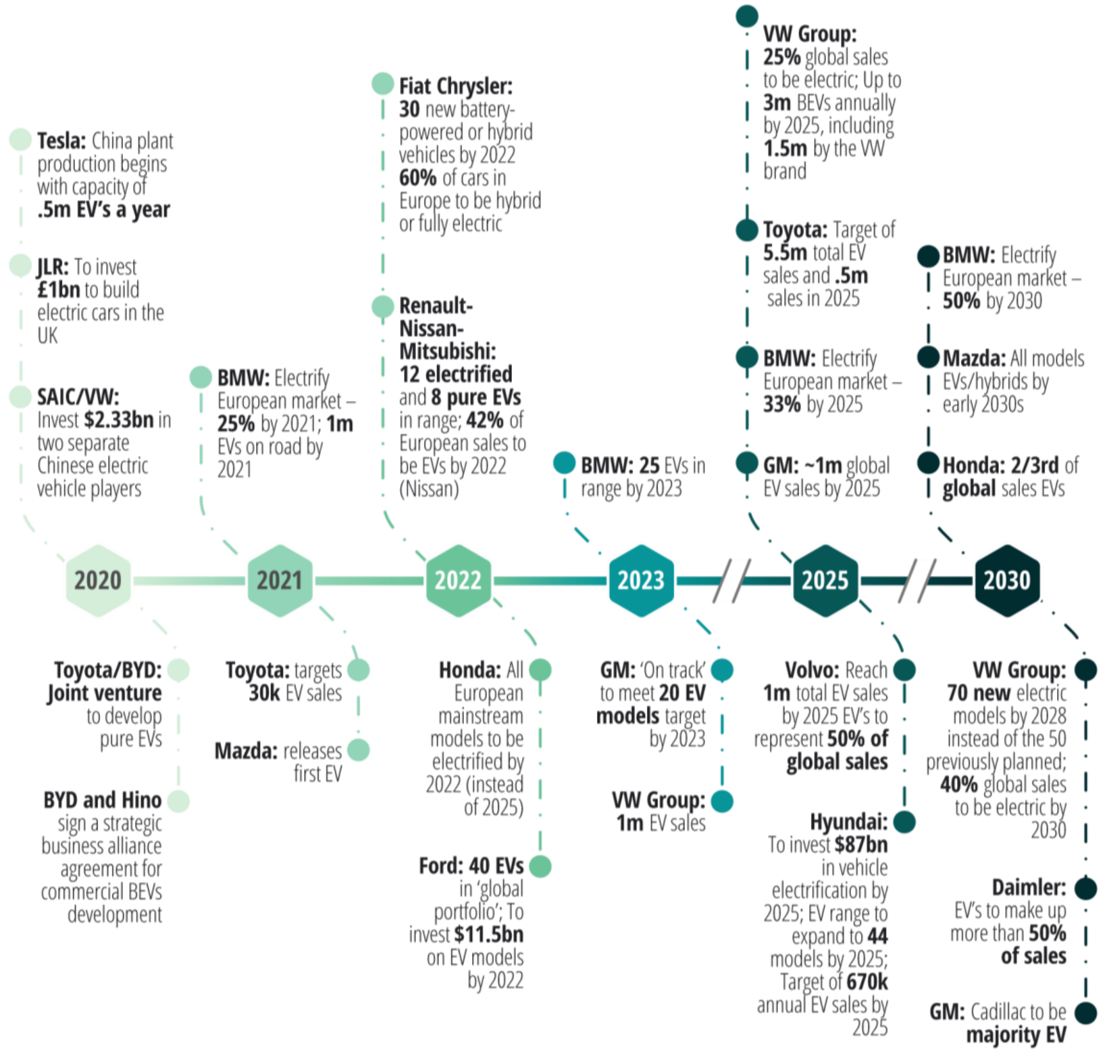


Figure 16-4: Timeline of Major OEM Targets for EV and Hybrid Vehicle Sales.

16.3 Product Review and Pricing

Spodumene ore, produced at 6% Li_2O, is an essential raw material used in the production of lithium carbonate and other lithium products such as lithium hydroxide, and its demand is closely linked to the EV market. Spodumene is a hard rock mineral that can be concentrated to 5 to 6% Li_2O, making it an attractive source for lithium production.

The need for spodumene ore is expected to grow in line with the increasing demand for lithium. The primary spodumene-producing countries are Australia, China, and Canada, with Australia accounting for the majority of global spodumene production. However, the supply of spodumene ore is also limited, and new sources are difficult to develop due to the high costs and multi-level extraction processes involved. Lithium producing mines that can supply 5 to 6% spodumene product will need to ramp up their production and other lithium projects need to commence to keep up the increasing demand.

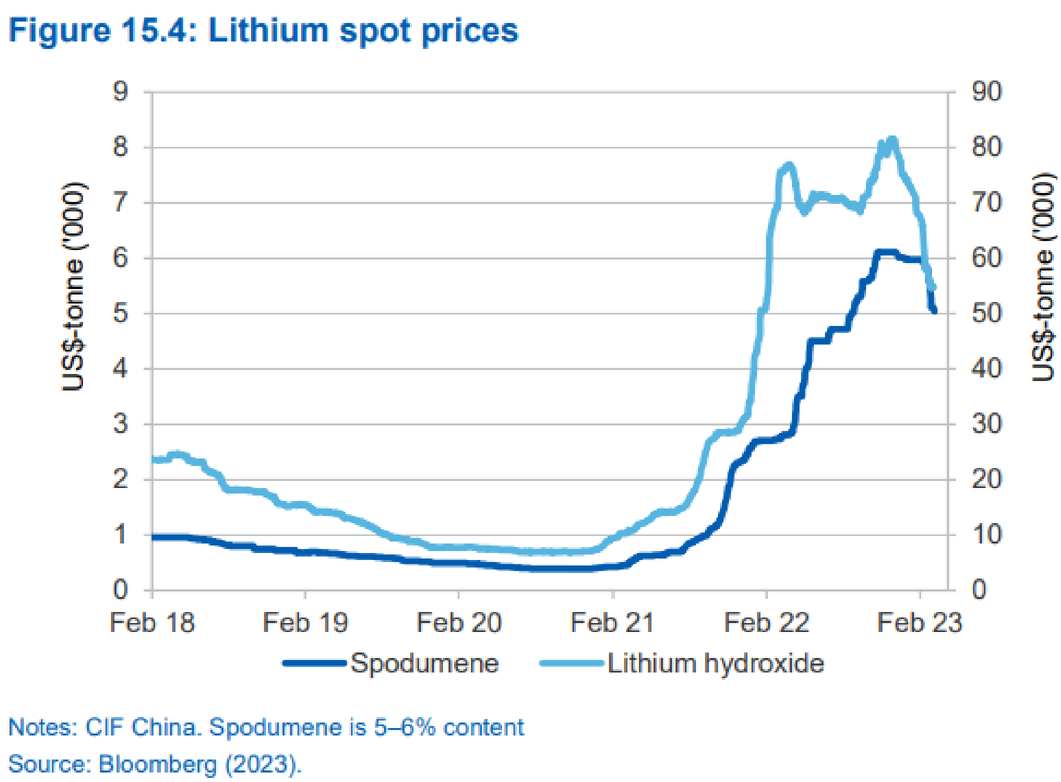


Figure 16-5: Spodumene and Lithium Hydroxide Spot Prices (CIF China).

Figure 16-5 above shows the 5-6% spodumene and lithium hydroxide spot prices (CIF China) over the last five years up to February 2023. The price of spodumene increased sharply after 2021 with the increase in demand for EVs, reaching US$ 6,000 per tonne at the end of 2022. The price dropped down to US$ 5,000 per tonne in February 2023, and further down to US$ 3,800 per tonne in May 2023 where it is expected to stabilize for the near future.

Overall, it is reasonable to use an estimate of $3,500 per tonne for 6% spodumene selling price for this assessment, based on the recent spodumene spot price. Lithium price increases though probable based on projected demand, are not included in the economic model.

The price for DSO in this assessment is estimated based on recent sale announcements of 1 to 1.5% Li_2O products in the Chinese market reaching up to $900 per tonne. The expected DSO grade for the Snow Lake Lithium project is 1.3% Li_2O. Adjusting for the grade and the current pricing of spodumene, a selling price of $504 per tonne is used for this study.

17. Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups (third party)

17.1 Environmental Studies

Baseline desktop studies and a full year of baseline fieldwork have been completed for the Project (May 2022 to June 2023). A second year of baseline work was initiated in June 2023. The baseline programs are aimed at providing two years of baseline data to support the provincial environmental application process and to compare with construction and operational monitoring data to monitor Project effects.

The study areas for the baseline work were informed by the MCA held by Snow Lake Resources and extend out of this area as deemed necessary to characterise the baseline environment. The Project area is defined by the MCA. The baseline programs will be reviewed and revised by considering the site layout and Project description provided by ABH Engineering.

A brief description and key results of these studies are included in Table 17-1 below.

Table 17-1: Summary of Environmental Baseline Studies and Findings

Environmental Discipline	Description and Findings
Climate and air quality	• The closest weather station is located at the Flin Flon airport, approximately 108 km west of the Project MCA. • There are no baseline substantive emissions sources in the Project area vicinity. • An on-site weather station will be installed in the summer or fall of 2023 to collect weather data.
Surface water	• The Project lies within the Grass River Watershed. The Grass River flows through the Project MCA and continues north until finally discharging into Hudson's Bay. • Local streamflow monitoring was conducted at two points on the Grass River, downstream and upstream of the MCA. Campaigns were conducted in fall (October) 2022, winter (April) and spring (June) 2023. An additional field campaign is planned for the summer of 2023 to complete a full year of quarterly local data collection covering the four climatic seasons. • Surface water quality samples have been collected from rivers and lakes monthly in and around the Project MCA since June 2022 and is ongoing. • Flow in the Grass River is perennial and exhibits moderate variability. Flows peak in June with contribution from the spring melt and are the lowest in the winter. Flows are sustained in the river in the fall due to rainfall inputs. • Aluminium and iron, followed by arsenic are the parameters that most frequently exceeded Canadian Council of Ministers of the Environment (CCME) guidelines across all sampled watersheds. Other metal exceedances found with less frequency were copper, hexavalent chromium, lead, mercury, and zinc. This monitoring data will be used to compare with construction and operational phase monitoring data to monitor potential Project effects.
Aquatic habitat **Fish and fish habitat** **Benthic invertebrates** **Sediment**	• Field surveys were conducted in the summer (August) and fall (September) of 2022 and plan to be continued during summer and fall of 2023 to provide two years of baseline data. • Available fish habitat is heavily influenced by beaver activity. • None of the fish species found are listed as provincially or federally protected species at risk. • Mercury levels in fish were predominantly within food guidelines in the small-bodied fish captured. • Aquatic sediment sample analyses showed some elevated concentrations of chromium and arsenic that exceeded the CCME Sediment Quality Guidelines for the Protection of Aquatic Life. This monitoring data will be used to compare with construction and operational phase monitoring data to monitor potential Project effects

Vegetation and wetlands	• Field surveys were conducted in the spring and summer (July) of 2022 and spring (June) 2023. Vegetation plots were surveyed along with soil plots and targeted land cover types identified through desktop research. • There is significant beaver activity in the Project MCA. • The Manitoba Conservation Data Centre (MCDC) identified several potential species at risk present in the Project area. Only one of these species have been found during fieldwork to date, namely the Dragon's mouth orchid which was found on the eastern side of the Grass River. This plant is listed as rare by MCDC. • 65 culturally significant plants were observed. These species have been defined as culturally significant to Aboriginal Peoples of the boreal forest; however, it has not been confirmed if any or all plants identified are significant to the Indigenous communities that may access the area. • No invasive species were identified within the 40 vegetation plots indicating little disturbance in these areas. However, invasive species were noted in areas of previous disturbance and along access roads.
Wildlife and wildlife habitat	• Field surveys were conducted in the spring and summer of 2022, spring 2023 and plan to be continued during fall and winter of 2023 to provide two years of baseline data. • The Project is located within Wildlife Management Area 7A and is designated as a Game Hunting Area by the Manitoba Government Wildlife Lands database. The area provides hunting license information for moose, black bear, grey wolf and coyote, and game birds. • There are no records of refuges, special conservation areas, managed hunting areas, or animal control areas under the *Manitoba Wildlife Act* within the Project area. • A small heard of caribou were observed in the MCA. Manitoba North boreal caribou are currently listed as threatened under the *Manitoba Endangered Species and Ecosystems Act* (ESEA) and the Federal *Species at Risk Act* (SAR). • Three SAR incidentally observed are federally listed as 'Special Concern' including the wolverine, northern leopard frog, and the common nighthawk. The common nighthawk is listed as 'Threatened' and is protected under Manitoba's ESEA Act.
Soil and soil productivity	• Field surveys were conducted in the spring and summer (July) of 2022 and spring (June) 2023. Soil plots were surveyed along with vegetation plots and targeted land cover types identified through desktop research. • Soil samples collected from representative soil plots were sent for laboratory analysis in 2022. Most soil parameters met criteria for greenfield sites, however 15 of the 22 soil samples collected (68%) were found to be above the CCME criteria for chromium, and 12 (55%) were above the CCME criteria for nickel. This monitoring data will be used to compare with construction and operational phase monitoring data to monitor potential Project effects.

Groundwater levels and quality	• The Project lies within the Precambrian Shield physiographic region in an area with sporadic discontinuous permafrost. • During 2022 baseline field studies included borehole drilling and installation, groundwater level measurements, and groundwater quality sampling in selected boreholes. Additional borehole drilling and aquifer testing is planned for 2023, in addition to water level measurement and groundwater quality sampling. • Groundwater levels are typically shallow. • The groundwater quality data shows that concentrations of total and dissolved metals including aluminium, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, sodium, thallium, uranium, vanadium and zinc; as well as fluoride and total dissolved solids exceeded either MB WQO, CCME WQG or Alberta Tier 1 Soil and Groundwater Remediation Guidelines. This monitoring data will be used to compare with construction and operational phase monitoring data to monitor potential Project effects. • No groundwater users have been identified in the region to date.
Geochemical characterisation	• Limited geochemical data is available for the Project to date. Acid Base Accounting (ABA) testing of seven rock samples in 2019 showed that the material was non-potentially acid generating (non-PAG). • Field-based kinetic testing is underway and results to date indicate that that only arsenic and copper routinely exceeded the CCE WQG for long-term exposure for all rock types, with aluminum and uranium exceeding on one occasion for the Monzonite and Pegmatite rock material, respectively. • Additional activities planned for 2023 include laboratory-based static and kinetic testing to inform designs for disposal of waste rock on site.
Noise and vibration	• The closest town to the Project MCA is Snow Lake. The closest property is 13 km south-west of the western boundary of the MCA, identified using satellite imagery. • Noise monitoring was conducted in 2022 and the results were well below the Health Canada's lowest "Maximum Desirable" for a "Residential Area" sound level. • There is no evidence of existing vibration sources at or in the vicinity of the Project or nearest vibration sensitive receptors. Therefore, the baseline vibration velocities are likely to be low and due to natural sources only.

Social environment and land use	• The closest town to the Project MCA is Snow Lake. No known communities or individual homesteads have been identified within the Project MCA. • According to the Manitoba Province, the Project lies within Treaty 5 land. Opaskwayak Cree Nation (OCN), Cross Lake Band of Indians (CLBI) (also traditionally referred to as Pimicikamak Cree Nation), Nisichawayasihk Cree Nation (NCN), Norway House Cree Nation (NHCN), Mosakahiken Cree Nation (MCN) are all Treaty 5 signatories and reside on Treaty 5 Territory. • According to information provided by Mathias Colomb Cree Nation (MCCN) (also traditionally referred to as Pukatawagan Cree Nation), the Project MCA lies within MCCN asserted Traditional Territory and claims a portion of the treaty 5 adhesion territory to be Treaty 6 territory. MCCN is a Treaty 6 signatory. • Norway House Cree Nation (NHCN) is understood to have a Treaty Land Entitlement (TLE) relatively close to the Project MCA. • Some Manitoba Metis Federation (MMF) members reside in the Herb Lake area. • Social baseline and land use data collection will continue in 2023 and will also aim to understand any Indigenous community traditional land uses.
Archaeology, heritage and cultural resources	• Field surveys were conducted in the spring and summer of 2022 although these focussed on planned resource drilling areas. Fieldwork will be continued during summer 2023 to survey additional areas within the MCA. • Based on desktop research, four archaeological sites occur within the Project MCA and two more within 1 km of the Mineral Rights Area. These include mostly campsite remains from before European contact. These areas will be surveyed during fieldwork planned for 2023. • Two new archaeological sites were found during field surveys along the Grass River and have been registered in the Provincial Archaeological Site Inventory. These include an old prospector’s camp and a bench feature, with quartz flakes. • It is possible that cultural resources occur within the Project area, and this will need to form part of a Traditional Knowledge and Land Use study.

17.2 Project Permitting

Snow Lake Resources holds an Exploration Work Permit issued by the Manitoba Sustainable Development department issued on April 29, 2022, which expires April 2025.

This section focusses on the Project permitting requirements for the construction and operation of the proposed mine.

It should be noted that this permitting list does not consider the powerline and related infrastructure as this will need to be permitted by Manitoba Hydro, the provincial power utility. SLR understands that Snow Lake

Resource was pursuing the option of building, owning and operating this infrastructure but this is yet to be advanced.

17.2.1 Federal Permits or Approvals

At this stage, Snow Lake Resources plans to remain below the thresholds requiring a federal Environmental Assessment (EA). The key mining thresholds are as follows:

Activity 18: The construction, operation, decommissioning and abandonment of one of the following:

(c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5,000 tons per day or more.

(d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 tons per day or more.

Other potential Project activities are unlikely to reach the specified thresholds, although this must be confirmed as the engineering studies and designs progress. Therefore, the Project is not expected to require a federal EIA.

It should however be noted that under the *Impact Assessment Act* (IAA), the Minister of Environment and Climate Change (ECCC) may designate a physical activity that is not prescribed by the Physical Activities Regulations if, in their opinion, either the carrying out of that physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation. This means that the Minister could require a federal EIA. A federal EIA process could easily take three to five years to complete. Indigenous communities, other communities and stakeholders could also request that the Minister designate the Project for federal EIA. Therefore, positive engagement and relationship building with the Indigenous communities and stakeholders is important.

Key federal review and approval processes are expected to be applicable to the Project include:

- *Fisheries Act*: A *Fisheries Act* authorization (Section 35) will be required if infrastructure or activities cause harmful alteration, disruption, or destruction of fish habitat. All the water features have been found to provide fish habitat during current baseline studies. The current Project plan requires a diversion of an unnamed watercourse (refer to Figure 15-1) around the Grass River open pits, in addition to a bridge crossing the Grass River to access the Thompson underground mining area.

It is expected that an authorisation will be required from the Department of Fisheries and Ocean (DFO) for the watercourse diversion, whereas the bridge crossing may require a review by DFO or an authorisation, depending on the bridge design.

An application will require detailed engineering designs, a legal survey and aquatic ecology impact assessment work. Once the application is submitted, the Minister has 60 calendar days to determine if the application is complete and notify the applicant of this determination. If the application is complete, the Minister has 90 calendar days to either issue the authorization or notify the applicant in writing that the authorization is refused. It should be noted that the time limit for reviewing the application (either the 60- or 90-day time limit) will not apply in certain circumstances, such as if there are material changes to the proposed activities, or engagement processes cause delays.

It is further expected that compensation or offset plan will be required to address the loss of fish habitat. This will be determined during the application process.

- *The Metal and Diamond Mining Effluent Regulations (MDMER):* This regulation will apply if the mine discharges effluent of 50 m^3 per day or discharges a deleterious substance (suspended solids (SS), arsenic, copper, cyanide, lead, nickel, zinc, radium 226, un-ionized ammonia). There are maximum concentrations specified for these substances (e.g., SS limit is 15.00 mg/L monthly mean concentration). Any discharge of excess water will need to comply with specified quality requirements. A water balance must still be developed for the Project; however, it is considered likely that the mine will have a positive water balance and need to treat and discharge excess water. In addition, should mine waste like tailings or waste rock overprint watercourses or wetlands, a Schedule 2 MDMER amendment will be required, which will include a complex and detailed alternatives assessment of mine waste disposal alternatives. This process is onerous and lengthy, taking 18 to 24 months. At this stage it is understood that there will be no permanent tailings storage on surface and waste rock dumps will be located more than 100 metres from all watercourses and waterbodies.

Other federal legislation will apply to the Project but is expected to be addressed in Project planning through appropriate scheduling and retention of licensed contractors. This includes requirements under the *Migratory Birds Convention Act, Transportation of Dangerous Goods Act, Explosives Act, Navigable Waters Act etc.*

17.2.2 Provincial Permits or Approvals

Key provincial environmental permitting and approvals processes that may be applicable to the Project include the following:

- *Class II Environmental Act Proposal (EAP):* Mining is listed as a Class II Development under *The Environment Act*, Regulation 164/88. Works resulting in modification to lake or river levels and alterations to stream channels which affect fish mobility and fish habitat are also Class II activities and would apply to the proposed watercourse diversion. At this stage, no Class I or III activities have been identified for the Project, however this will need to be verified as engineering studies and design work progresses.

  Class II and III developments must undergo the EA (environmental assessment) and licensing process and receive an *Environment Act* Licence prior to construction and operation. Class III development applications must be approved by the Manitoba Sustainable Development Minister. Once the EAB has received the EAP, it has 60 days for Class II and 120 days for Class III developments, to determine timing for review and decision-making. There are no legislated timeframes for review and decision of applications. This unknown has the potential to affect the Project execution timeline.
- *Heritage clearance*: Clearance will be required in terms of the *Heritage Resources Act*. The time taken for regulatory review and decision-making is not provided in the regulations.
- *Approved Mine Closure Plan*: An approved closure plan is required prior to a permit being granted for a new mining operation in terms of the *Mines and Minerals Act*. The time taken for regulatory review and decision-making is not provided in the regulations.
- *Water abstraction approval*: Abstraction of water from surface or groundwater will require a licence in terms of the *Water Rights Act*. However, a licence is not required if a licence is issued under the

Environment Act. The time taken for regulatory review and decision-making is not provided in the regulations.

- <u>*Water control works and watercourse diversion approval*</u>: Water control works (drains, culverts, dikes, dams, etc.) and a watercourse diversion will require a licence in terms of the *Water Rights Act*. The time taken for regulatory review and decision-making is not provided in the regulations.

It is worth mentioning that Manitoba recently entered into an Agreement for the Conservation and Recovery of the Caribou, Boreal population in December 2022, with His Majesty the King in Right of Canada, as represented by the Minister of the Environment who is responsible for the Department of the Environment, pursuant to the *Species at Risk Act* (SARA) and the *Wildlife Act*. The purpose of this agreement is stated as:

- To set out effective conservation and recovery measures that will be taken to support conservation and recovery of Boreal Woodland Caribou local populations in Manitoba. These measures include landscape planning and caribou population and habitat monitoring.
- To coordinate conservation activities.
- To facilitate the integration of new information into updated recovery and planning documents.

Caribou have been found within the Project MCA and surrounds and therefore it is possible that there could be specific management plans and mitigation measures needed, which must still be determined by the province.

Other provincial legislation will apply to the Project but is expected to be addressed in Project planning through appropriate scheduling e.g., adherence to the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat, and retention of licensed contractors. This includes requirements under the *Endangered Species and Ecosystems Act, Groundwater Well and Water Act, Water Protection Act, Transportation of Dangerous Goods Act* etc.

17.2.2.1 *Environment Act* Proposal (EAP)

This section describes the main application process needed for the Project, an EAP in terms of the Manitoba *Environmental Act*.

The EA and licensing process is summarised below:

- The project proponent must submit an *Environment Act* Proposal (EAP) to the Environmental Approvals Branch (EAB). Proponents are encouraged to consult with staff of the department, affected public, interested parties and Indigenous communities to identify issues and concerns prior to finalizing the EAP. The department will check the EAP for completeness.
- Screening phase includes public review of the EAP and technical review by a Technical Advisory Committee (TAC). The EAB will review all public and TAC comments on the EAP and may request additional information from the proponent to address concerns. The EAB can decide that a full Environmental Impact Statement (EIS) is needed and issue guidelines for the proponent to prepare a full EIS.
- Decision phase is when the EAB issues a licence or rejects the application. This decision is made by the Director of the EAB for Class I and Class II developments and by the Minister for Class III developments. As mentioned above, the EAB has received has 60 days for Class II and 120 days for Class III developments, to determine timing for review and decision-making.

17.3 Social or Community Requirements

As mentioned in Section 3, the town of Snow Lake is the nearest community to the Project area. The Project lies within Treaty 5 land with several Indigenous communities' signatories. Mathias Colomb Cree Nation has asserted that the Project lies within the Nation's Traditional Territory.

Seven Indigenous communities have been identified as being potentially interested in engagement on the Project, although most of these communities reside 100 km more from the Project area. These include MCCN and the Treaty 5 signatories referred to in Section 2, including OCN, CLBI, NCN, NHCN, MCN and the MMF. It is understood that some MMF members reside in the Herb Lake area.

Early engagement efforts have been made since May 2022 facilitated by SLR by contacting and communicating with these Indigenous communities, as well as with the mayors of the Town of Snow Lake, Thompson, the Pas and Flin Flon. A Project introductory letter was submitted and a request for meetings to engage directly with the Indigenous community Chiefs and councils, as well as the mayors and councils were sent out. These letters were followed up with electronic emails and phone calls. Responses were received from five out of seven of the Indigenous communities. Meetings have been held with:

- Manitoba Meti Federation in June 2022 and June 2023.
- Mathias Colomb Cree Nation in April 2023.
- Norway House Cree Nation in November 2022 and April 2023.

An engagement plan is being developed and additional meetings are expected to be held with these communities later in 2023. Snow Lake Resources legal representatives have engaged with Mathias Colomb Cree Nation directly, and this will continue.

Responses were also received from all the mayors contacted and meetings are planned for the fall of 2023.

Snow Lake Resources has an email account for communities and stakeholders to make contact and SLR has managed numerous emails on behalf of Snow Lake Resources since May 2022.

SLR has also held virtual meetings and communicated with the Manitoba Consultation & Reconciliation Office in May and August 2022 and most recently in June 2023 to discuss plans and progress in engaging with Indigenous communities.

Detailed Records of Consultation are kept and maintained by SLR on behalf of Snow Lake Resources.

17.4 Mine Closure Planning

As mentioned previously, an approved closure plan is required prior to a permit being granted for a new mining operation in terms of the *Mines and Minerals Act*.

The mine closure plan should follow the Mine Closure Regulations and guidelines. Key information to be provided includes:

- Baseline conditions;
- Detailed project description and site layout;
- Life of the project;

- Planned production levels;
- Tailings dam size, location and associated infrastructure (if applicable);
- Dams and drainage control structures;
- Surface stability assessment;
- Systems for the treatment, management or disposal of waste and for storage of petroleum products, chemicals, hazardous substances and toxic substances;
- End land use (post closure); and
- Monitoring plans.

Financial assurance must be provided in terms of the Manitoba Mine Closure Regulation 67/99, and the Mine Closure Guidelines for Financial Assurance.

18. Capital and Operating Costs

The following section outlines the capital and operating costs estimated for the LOM of the Snow Lake Project at Thompson Brothers and Grass River deposits. The estimated values are reported in US Dollars, unless stated otherwise.

The production and financial plan for this project is based on mining Grass River open-pit resources during year 1 using contract miners. The lithium oxide ore mined higher than 1% grade is sold as direct ship ore, and the remaining ore is stockpiled to be processed in year 2. Profits gained from DSO will be used to pay for the capital costs required for building the mill and ore sorters, buying the remaining mining equipment, and building the powerline and substation.

Underground mining starts in year 2 and continues through the LOM with the mined ore sent through the ore sorters for waste removal and iron reduction. Sorter accepts are combined with the fines to the mill at a constant throughput of 2500 tonnes per day producing a 6% spodumene product.

18.1 Basis of Estimate

The capital and operating costs in this report are estimated by ABH Engineering Inc. and considered Class 4 estimates per the American Association of Cost Engineers (AACE) standards with an accuracy of -30 to +50% and contingencies added not exceeding 15% of the total cost.

CAPEX and OPEX were estimated using the following sources:

- Vendor quotes for mining equipment, infrastructure, processing unit operations, and other major equipment.
- A power supply quote from AIM Power For the installation of a powerline and a substation.
- Cost models and past project experience to estimate costs.
- Benchmarking from similar projects with similar processing flowsheet and mining method.
- Maintenance cost estimates, media and reagents market prices, and power cost in Manitoba for OPEX estimates.

All cost information and assumptions were combined to estimate the total CAPEX and OPEX used in the economic analysis. General and Administration (G&A) costs are estimated as an operating cost based on the ore tonnage processed at the mill.

18.2 Capital Cost Estimates

Table 18-1: Snow Lake Capital Expenditure Summary

CAPEX	Amount (Million USD)
Initial CAPEX	50
Remaining CAPEX (Year 1 to 9)	96
Total CAPEX	146

The capital costs estimated to achieve the targeted production and milling rates are presented as initial CAPEX in year 0 and as total capital including cost to build the mill, ore sorters, powerline, and other infrastructure in year 1. The total amount also includes a closure cost at the end of mine life. A summary of the project's capital costs is shown in Table 18-1.

18.2.1 Initial CAPEX

Initial capital costs consist mainly of pre-production development, mining equipment needed in year 0, and the construction of 4 bridges. The fifth bridge can be constructed in year 1 and therefore is not part of initial capital costs. There is also capital cost associated with road infrastructure.

The initial capital expenditure is summarized in Table 18-2 below. The costs presented include a 15% contingency.

Table 18-2: Initial CAPEX Summary

Initial Capital Cost	Amount (Million USD)
Pre-Production Development	18.7
Mining Fleet	17.1
Bridge Construction	12.4
Road Infrastructure	0.8
Royalty CAPEX	1.0
Total	50.0

18.2.2 Remaining CAPEX

The bulk of the remaining capital costs will be spent in year 1 to build the mill and set up the ore sorting system. The installation cost of the powerline and substation is significant, along with the cost of building the fifth bridge. A closure cost of $10 million is estimated at the end of mine life.

The breakdown for the remaining capital costs is shown in Table 18-3. All costs include a 15% contingency.

Table 18-3: Remaining CAPEX Summary (Year 1 to 9)

Initial Capital Cost	Amount (Million USD)
Mill Equipment & Infrastructure	42.2
Remaining Mining Fleet	15.1
Ore Sorting System	7.2
Powerline & Substation	18.4
Bridge Construction	3.1
Closure Cost	10.0
Total	96.0

18.3 Operating Cost Estimates

The operating costs associated with the pit production at Grass River, underground mining production at Grass River and Thompson Brothers, and processing at the mill are summarized in this section.

Unit costs for the key parts of production and processing are summarized in Table 18-4 below.

Table 18-4: Summary of Key Unit Operating Costs

Unit Cost	Amount	Unit
Open Pit Contract Mining	4.85	$/t mined open pit
Underground Mining	33.46	$/t mined underground
Processing	15.82	$/t milled
Ore Sorting & Crushing	1.50	$/t mined underground
Transportation of DSO	99.97	$/t DSO
Transportation of Spodumene	15.02	$/t ore product
General and Administrative	1.50	$/t milled

The transportation cost of $99.97/t for DSO is estimated based on shipping the above 1% Li_2O product from Grass River pit to the Chinese market, whereas the 6% spodumene product recovered from the mill is transported locally for an estimated cost of $15.02/t.

The total LOM operating costs are estimated using the stated unit costs and the mass balance shown in the previous mining and processing sections.

A breakdown of the OPEX is shown in Table 18-5 below.

Table 18-5: Life of Mine Operating Costs

Unit Cost	Amount (Million USD)
Underground Development	120
Mining	322
Processing	102
Ore Sorting & Crushing	14
Transportation of DSO	31
Transportation of Spodumene	14
General and Administrative	10
Total	613

Mining costs make up more than 50% of the total operating costs. Underground development at Grass River and Thompson Brothers deposits are considered operating costs and represent about 20% of the total amount, and processing costs are roughly 17% of the total OPEX.

19. Economic Analysis

This economic analysis in the initial assessment is preliminary and shows results including inferred mineral resources that are considered too speculative geologically to have modifying factors applied to them to be categorized as mineral reserves, and there is no certainty that this economic assessment will be realized.

The results in this study are the current forecast for future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that the initial assessment results will be met.

This technical report contains forward-looking information that is susceptible to several risks, uncertainties, and factors that may result in differences between the evaluation presented in this economic analysis and the real results. Information such as the mining cost, proposed mine production plan, projected recovery rates, mineral resource estimates, risks regarding capital and operating expenditures, environmental uncertainties, and project completion schedule all may cause the actual results to differ from those presented here.

The conducted assessment includes all capital and operating costs stated in Section 18 and revenue estimates to create a year-by-year cash flow for the Snow Lake project. The key results reported in this section are the pre-tax net present value (NPV), internal rate of return (IRR), and project payback period. Federal and provincial taxes applied on the annual profit are assumed and outlined in section 19.3. Tax estimates are used to report key economic results after tax.

A sensitivity analysis is conducted to assess the variations to the NPV when altering the values of important financial parameters independently of each other. The parameters include spodumene price, CAPEX, OPEX, overall mill recovery, and NPV discount rate.

The annual cash flow and economic results are presented based on all mineral resources including inferred. The economic results are then estimated based on measured and indicated resources and reported distinctly. A sensitivity analysis is also performed using measured and indicated resources.

19.1 Inputs and Assumptions

The following assumptions and financial parameters are used in this initial assessment.

Production:

- Life of mine of 9 years. The mine is in production for only 4 months in the final year.

- Total mined ore of 9.78 million tonnes.
- Average mined ore grade of 0.84%.
- Mining rate of 1700 tonnes per day in year 1 (open pit), and average underground mining. rate of 3135 tonnes per day.
- Maximum sorter throughput of 3730 tonnes per day for 2 sorters.
- Processing rate of 2500 tonnes per day.
- Mined DSO and processed ore are sold in the same year of production.
- 89% of the contained lithium is classified as measured and indicated.

Financial:

- 6% spodumene product price of $3500 per tonne.
- DSO above 1% Li_2O is sold in year 1 for $504 per tonne.
- Costs and revenues shown in nominal 2023 US Dollars unless stated otherwise.
- 1% private royalty and an associated $1 million cost added to initial CAPEX.
- NPV discount rate of 7%.
- No inflation applied.

19.2 Revenues and Royalties

The estimated annual revenues for the 9 years of production are presented in Table 19-1.

Table 19-1: Projected Annual Revenues Pre-Royalties.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Totals
Revenue (Million USD)	157.7	399.8	400.1	394.5	427.8	410.7	505.0	496.6	112.8	**3,305**

Year 1 revenue is generated from sale of DSO, whereas year 2 of production onwards produces 6% spodumene that is sold for $3500 per tonne. The total LOM revenue is $3.31 billion.

A 1% royalty is applied to the revenue stream and is associated with a capital cost of 1$ million in year 0.

Table 19-2: Total Revenue Post-Royalties.

Description	Amount (Million USD)
Revenue	3,305
1% Royalty	33
Revenue with royalty applied	3,272

19.3 Pre-Tax Cash Flow and Results

Post royalty Revenue and capital and operating cost estimates are used to calculate the annual pre-tax cash flows for the Snow Lake project. Table 19-3 and Figure 19-1 summarize the year-by-year pre-tax cash flows.

Table 19-3: Pre-Tax Annual Cash Flow.

		Years										
Description	**Unit**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**Totals**
Revenue (Post Royalty)	**Million $**	-	156	396	396	391	424	407	500	492	112	**3,272**
CAPEX	**Million $**	50	86	-	-	-	-	-	-	-	10	**146**
OPEX	**Million $**	-	69	77	75	76	74	72	71	74	24	**613**
Cash Flow (Pre-Tax)	**Million $**	-50	1	319	321	315	349	334	429	418	78	**2,513**

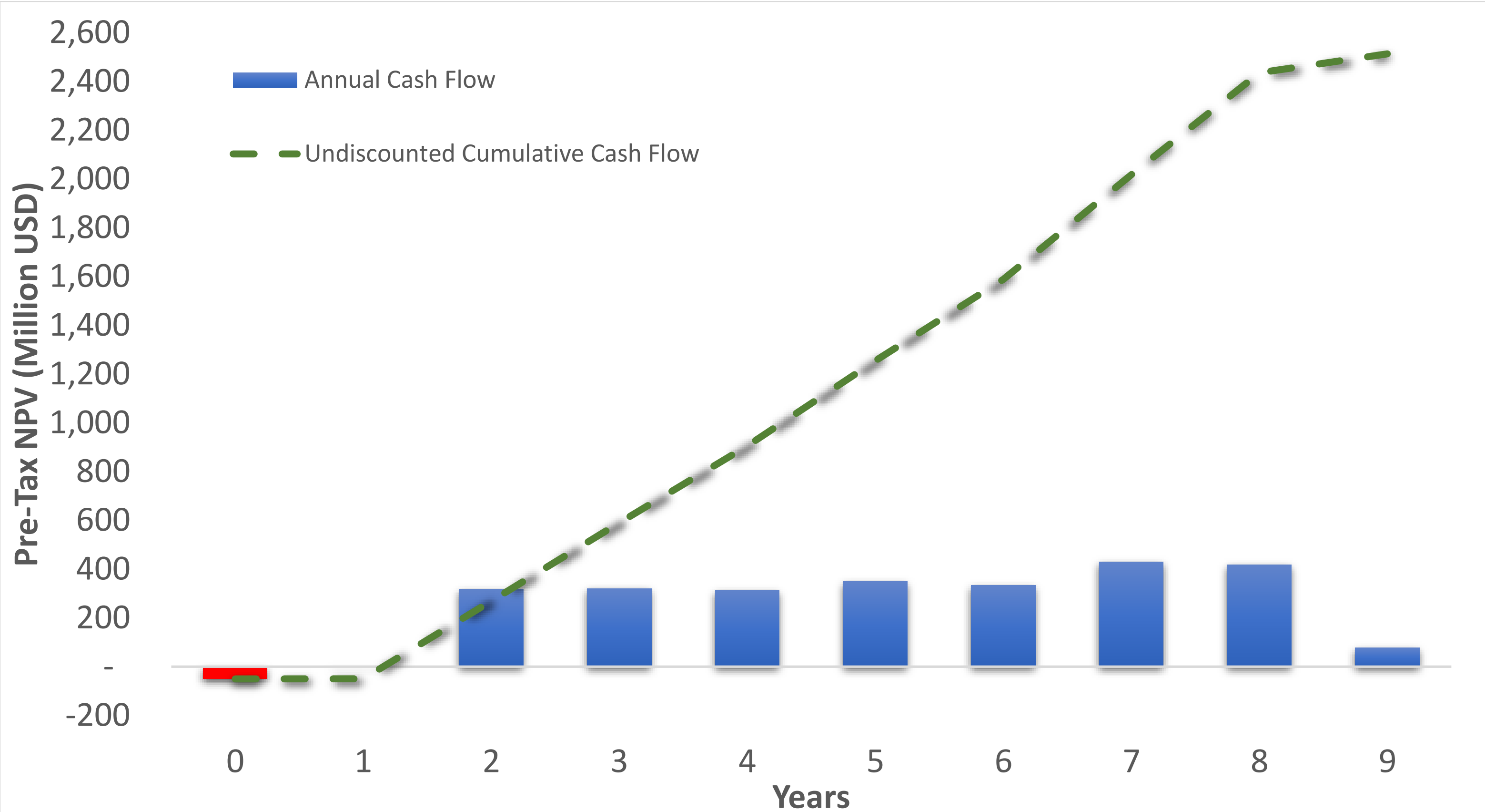


Figure 19-1: Pre -Tax Annual and Cumulative Undiscounted Cash Flows

Based on the estimated cash flows shown above, the pre-tax NPV for the Snow Lake project is projected at $1.76 billion, with an IRR of 208% and a project payback period of 14 months. The key economic results for pre-tax estimates are shown in Table 19-4.

Table 19-4: Pre-Tax Key Economic Results for All Mineral Resources.

Pre-Tax Economic Results (all Resources)	
Net Present Value	$1.76 Billion
Internal Rate of Return	208 %
Payback Period	14 Months

The pre-tax key economic results are estimated using measured and indicated resources only and the values are presented in Table 19-5 below.

Table 19-5: Pre-Tax Ket Economic Results for Measured and Indicated Mineral Resources

Pre-Tax Economic Results (Measured and Indicated Only)	
Net Present Value	$1.52 Billion
Internal Rate of Return	175 %
Payback Period	15 Months

19.4 Taxes and Post-Tax Cash Flow

Taxes applied on the project annual profit are assumed and considered speculative for this initial assessment. Special taxes or tax refunds are not considered in the estimation.

Provincial mining taxes stated by the province of Manitoba are applied based on different profit brackets. It is worth noting that no mining tax is applied until the project has returned its initial investment. The provincial mining tax rates relevant to the reported annual profits in Table 19-2 are as follows:

- 17% mining tax applied when annual profit is higher than $105 million. This applies to a portion of year 2 profits when initial investment is returned and all of year 3 to 8 profits.
- 15% mining tax applied when annual profit is between $55 and $100 million. This applies to year 9 profits.

The province of Manitoba implements only mining taxes on profits with no provincial royalty on revenues.

In addition, federal taxes are assumed to be 15% applied on annual profits and are in effect once the initial investment is recovered.

Table 19-6: Annual Taxes Breakdown and Post-Tax Cash Flows.

		Years										
Description	**Unit**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**Totals**
Revenue (Post Royalty)	**Million $**	-	156	396	396	391	424	407	500	492	112	**3,272**
CAPEX	**Million $**	50	86	-	-	-	-	-	-	-	10	**146**
OPEX	**Million $**	**-**	69	77	75	76	74	72	71	74	24	**613**
Cash Flow (Pre-tax)	**Million $**	-50	1	319	321	315	349	334	429	418	78	**2,513**
Provincial Taxes	**Million $**	-	-	40	48	47	52	50	64	63	12	**377**
Federal Taxes	**Million $**	-	-	46	55	54	59	57	73	71	12	**426**
Total Taxes	**Million $**	-	-	86	103	101	112	107	137	134	23	**803**
Cash Flow (Post-Tax)	**Million $**	-50	1	233	218	214	237	227	292	284	55	**1,711**

The post-tax key economic results based on all mineral resources are presented in Table 19-7 .

Table 19-7: Post-Tax Key Economic Results for All Mineral Resources.

Post-Tax Economic Results (all Resources)	
Net Present Value	$1.19 Billion
Internal Rate of Return	170 %
Payback Period	14 Months

Post-tax economic results are also shown in Table 19-8 below based on measured and indicated mineral resources only.

Table 19-8: Post-Tax Key Economic Results for Measured and Indicated Mineral Resources.

Post-Tax Economic Results (Measured and Indicated Only)	
Net Present Value	$1.03 Billion
Internal Rate of Return	143 %
Payback Period	15 Months

19.5 Sensitivity Analysis

A sensitivity analysis is conducted to study the changes to the pre-tax NPV when key economic inputs are varied. The varied economic parameters and the points of variation are as follows:

- **Spodumene price:** ± 15% and ± 30% variation points.
- **Project LOM capital cost:** ± 15% and ± 30% variation points.
- **Project LOM operating cost:** ± 15% and ± 30% variation points.
- **Mill recovery:** A change of ± 2 to the mill recovery percentage.
- **NPV discount rate:** A change ± 2 to the NPV discount rate percentage.

It is important to note that the inputs are varied independently, therefore the analysis does not consider the changes to other parameters when varying one of the inputs. The results are presented in Table 19-9 below.

Table 19-9: Sensitivity Analysis for Pre-Tax NPV Estimates for All Mineral Resources.

NPV Projection (Million USD) – All Mineral Resources					
Parameter Variation	**-30%**	**-15%**	**0%**	**+15%**	**+30%**
Spodumene Price	1,052	1,404	1,756	2,107	2,459
LOM CAPEX	1,796	1,776	1,756	1,735	1,715
LOM OPEX	1,891	1,823	1,756	1,688	1,620
Parameter Variation		**-2%**	**0**	**+2%**	
Mill Recovery		1,701	1,756	1,810	
NPV Discount Rate		1,937	1,756	1,596	

Figure 19-2 and Figure 19-3 show the results in the form of spider chart and tornado chart respectively. The spider chart highlights the variations of spodumene price, project CAPEX, and project OPEX. The tornado chart shows the pre-tax NPV sensitivity to all considered parameters.

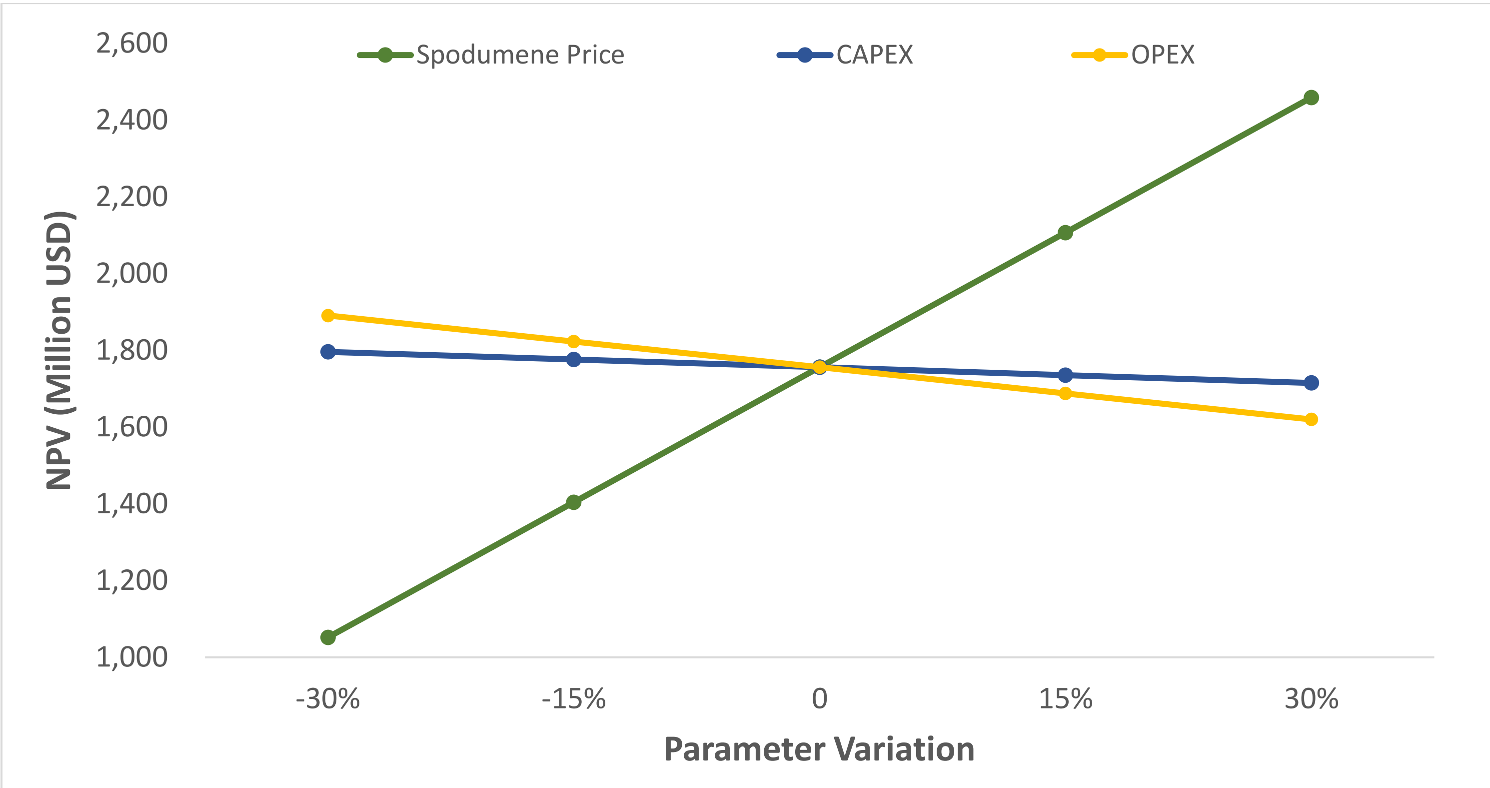


Figure 19-2: Spider Chart for Pre-Tax NPV Sensitivity Analysis Based on All Mineral Resources.

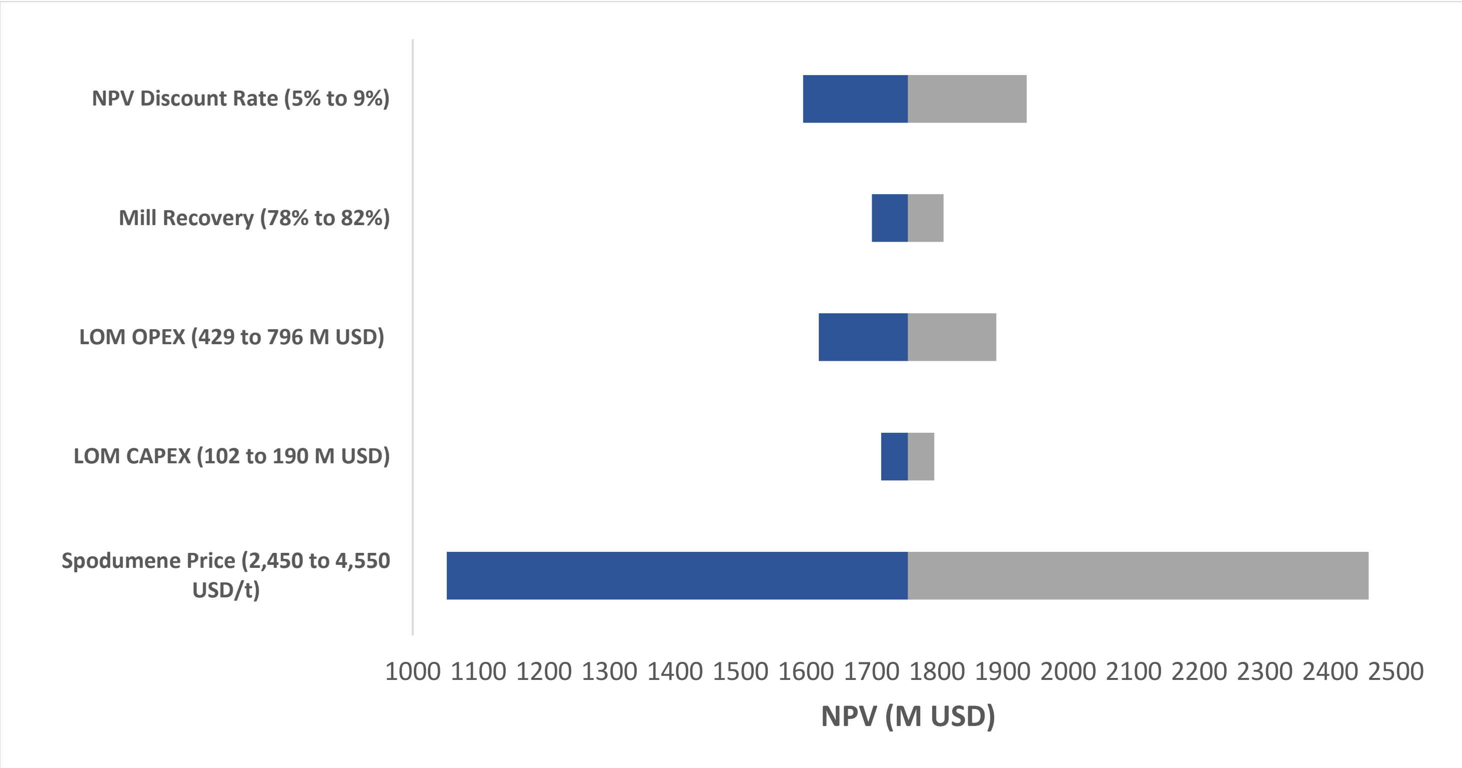


Figure 19-3: Tornado Chart for Pre-Tax NPV Sensitivity Analysis Based on All Resources.

The results show that the NPV is most sensitive to changes to spodumene price. In the case of spodumene price increasing by 30% to $4,550 per tonne, the project NPV may potentially increase to over $2.4 billion. It is also promising to note that a 30% decrease to the spodumene price would keep estimated NPV higher than $1 billion.

On the other hand, the NPV is most resistant to variations in capital cost, followed by mill recovery. A 30% increase to project capital has a small effect on the NPV and the project value is still above $1.7 billion.

The NPV discount rate also has a significant effect on the NPV. If a 5% discount rate is used for this project, the NPV reaches almost $2 billion. Using a 9% discount rate only drops the NPV projection to $1.6 billion.

A sensitivity analysis is also conducted for pre-tax NPV based on measured and indicated mineral resources only and presented in Table 19-10 below. Additionally, the spider and tornado charts are shown in Figure 19-4 and Figure 19-5 respectively.

Table 19-10: Sensitivity Analysis on Pre-Tax NPV for Measured and Indicated Mineral Resources

NPV Projection (Million USD) – Measured and Indicated Only					
Parameter Variation	**-30%**	**-15%**	**0%**	**+15%**	**+30%**
Spodumene Price	899	1,208	1,518	1,828	2,137
LOM CAPEX	1,559	1,539	1,518	1,498	1,477
LOM OPEX	1,641	1,580	1,518	1,457	1,395
Parameter Variation		**-2%**	**0**	**+2%**	
Mill Recovery		1,470	1,518	1,566	
NPV Discount Rate		1,680	1,518	1,376	

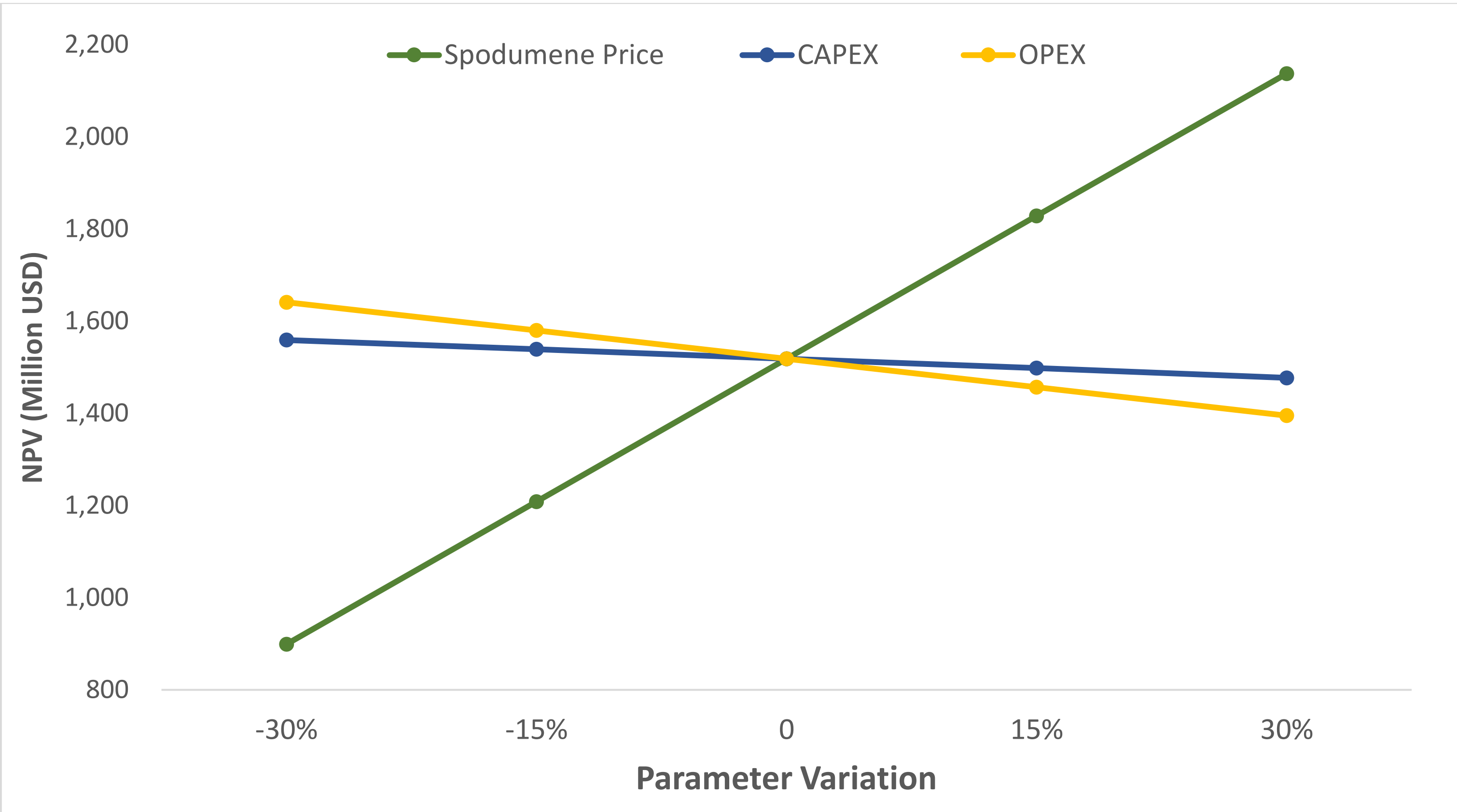


Figure 19-4: Spider Chart for Pre-Tax NPV Sensitivity Analysis Based on All Mineral Resources.

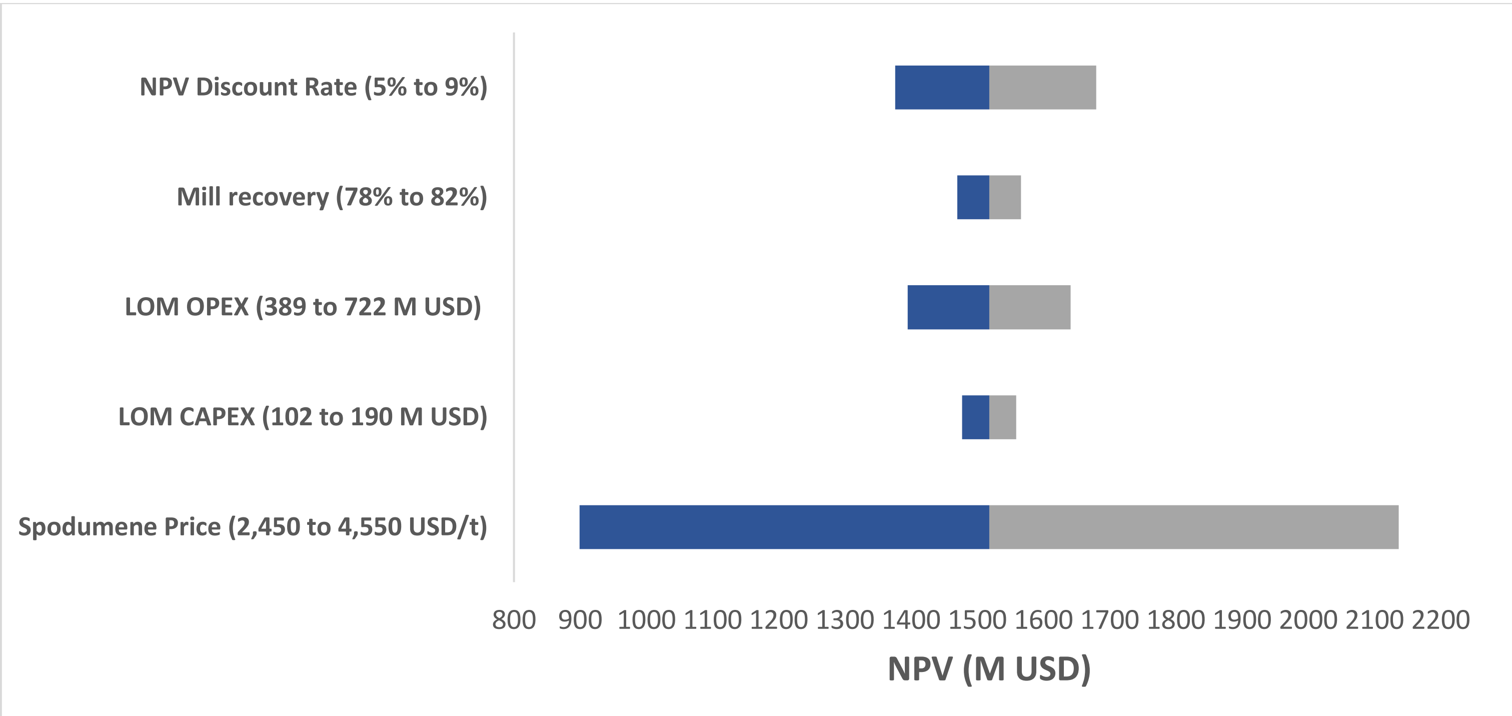


Figure 19-5: Tornado Chart for Pre-Tax NPV Sensitivity Analysis Based on Measured and Indicated Mineral Resources.

20. Adjacent Properties

The Snow Lake region of Manitoba is a mining friendly jurisdiction with a variety of deposits and operations that are in exploration of production stages. The properties described in the following section are excluded from the Thompson Brothers property and cannot be verified to be indicative of its mineralization qualities.

20.1 Zoro Lithium Deposit

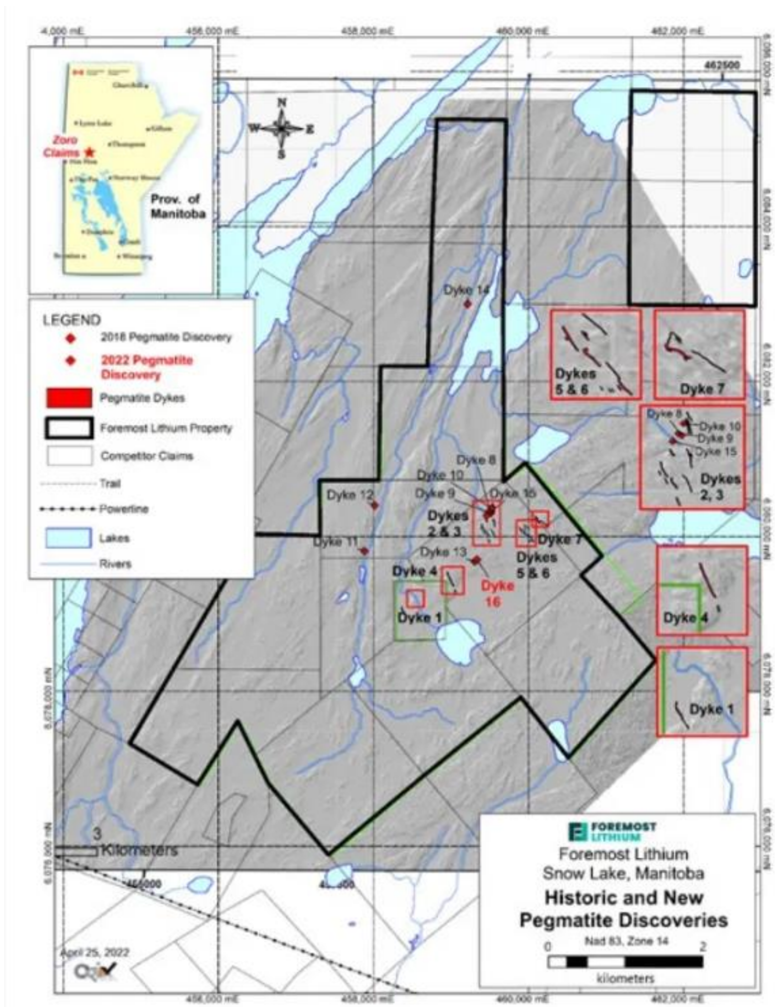


Figure 20-1: Zoro Project property outline and pegmatite discoveries

The Zoro Lithium Project is currently owned by Foremost Lithium, previously owned by Far Lithium. In 2018, under previous ownership, a NI 43-101 technical report was published based on a maiden 1.1 Mt resource grading 0.91% Li_2O. As shown in Figure 1, the deposit is located 20km east of the historical mining town of Snow Lake and approximately 5km east of the Thompson Brothers property, with a total of 16 claims that covers 3,603 hectares.

As of March 2023, preliminary metallurgical test results have confirmed that with Dense Media Separation (DMS) and flotation of the DMS middling together, the product of global lithium is able to reach 81.6% recovery of spodumene concentrate at the grade of 5.88% Li_2O.

20.2 Peg North Lithium Deposit

Peg North Project is located north of the Thompson Brothers Property near the town of Snow Lake. Figure 2 below shows the Peg North Property and the nearby Foremost Lithium properties. The property consists of 28 claims that cover 16,697 acres (6,757 hectares) of land. The claims extend from the northern deposit of Thompson Brothers deposit, which suggests that the two deposits potentially have similar mineralization and rock structure.

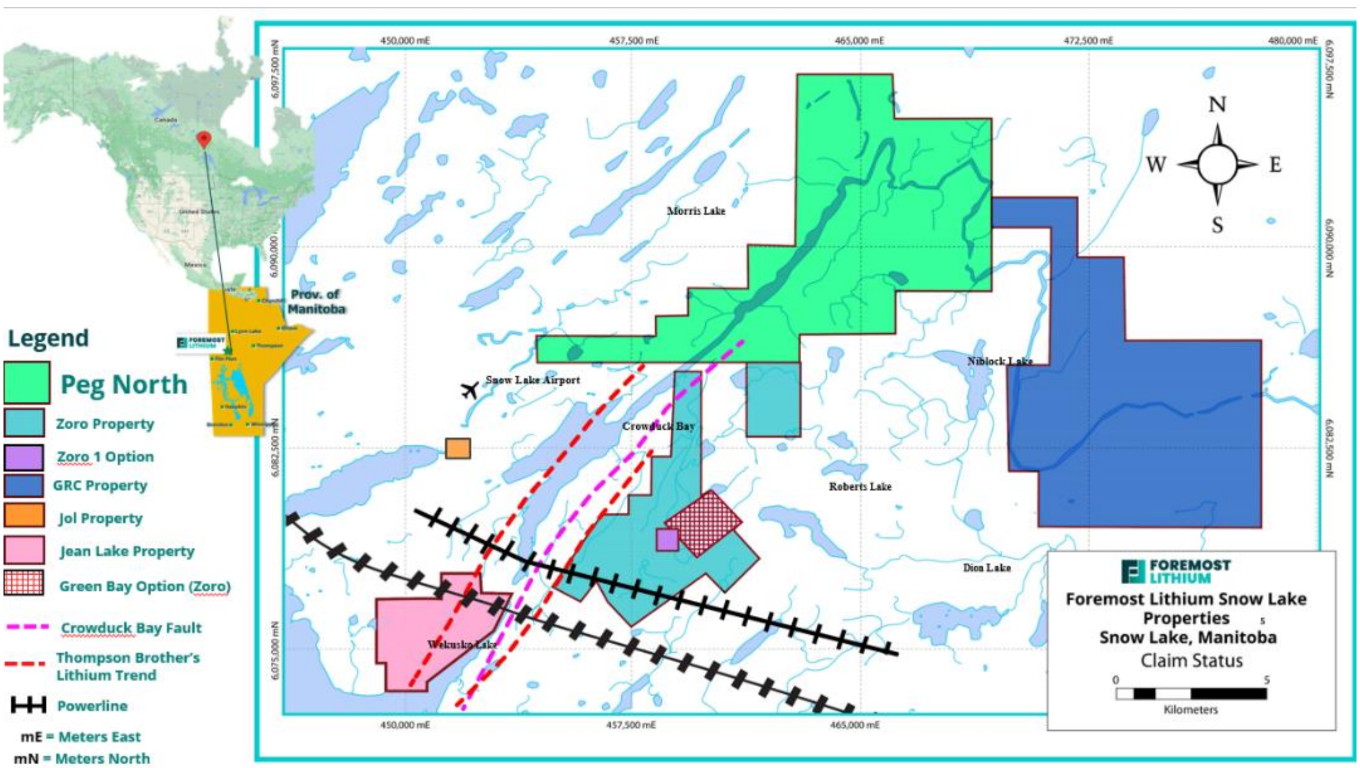


Figure 20-2: Peg North Property and other Foremost Lithium owned properties near Snow Lake, Manitoba

20.3 Lalor Mine

The Lalor Mine is 100% owned by Hudbay Minerals and is located 16km to the west of Snow Lake Lithium Property. The Lalor Mine is a zinc and copper producer with volcanogenic massive sulfide (VMS) deposits excavated using cut and fill mining method. The operation was under pre-feasibility level study in 2012 and was in production since 2016. Lalor ore is trucked to the New Britannia mill in Snow Lake.

20.4 Laguna Gold Property

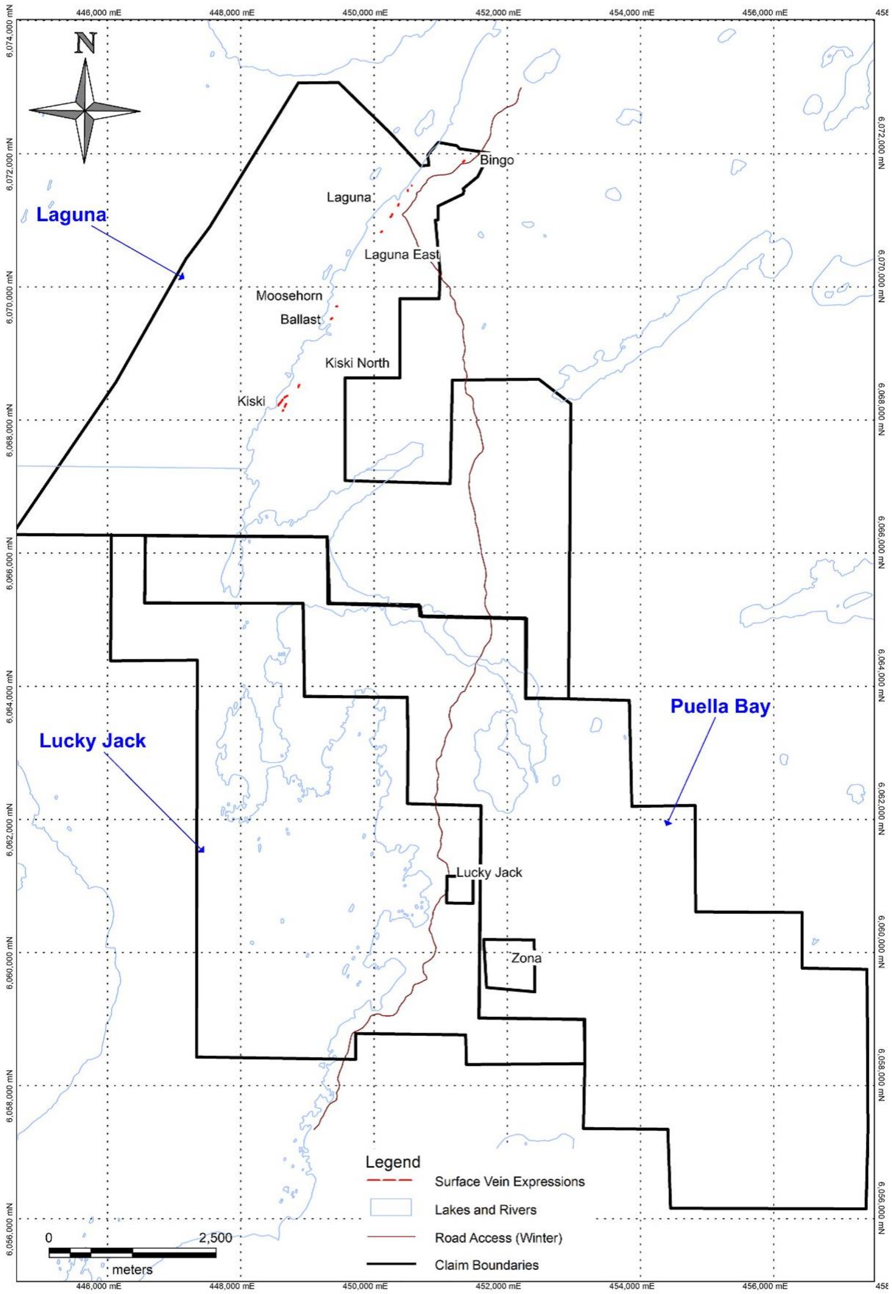


Figure 20-3: Laguna Gold Property Claim Map, Snow Lake, Manitoba

The Laguna Gold property hosting the historic Rex-Laguna gold mine, is the oldest, and highest-grade gold mine in Manitoba. The property is located within the Flin Flon-Snow Lake greenstone belt and produced over 60,000 ounces of gold grading 16.7 g/t up until 1940. It is currently owned by Kinross Gold (70%), who have completed 48 drill holes during their current exploration program. They have recently discovered a high-grade quartz vein that traces 250 meters across strike at 150 meters depth, located above the previously mined Laguna quartz vein. As of now, gold mineralization at the site is seen to be predominantly associated with arsenopyrite disseminated within sericitized zones along the margins of quartz veins.

21. Other Relevant Data and Information

This section is not required for this report. All information and references are outlined in Chapter 2.

22. Interpretation and Conclusions

The following section of the report outlines the interpretation of the data analyzed by the corresponding Qualified Persons in the report. The Qualified Persons have reviewed each section and have made conclusions based on currently information and assumptions and have made comments of the existing underlying risks and uncertainties.

22.1 Mineral Resources

Mineral Resources have been estimated by employing industry standard methods of grade shell modelling, followed by variographic determinations of geologic continuity of grades, which determines the range of measured, indicated and inferred ellipsoids for estimation of block models. The whole of the modelling and resource estimation is underpinned by geochemical analysis of the set of core samples. The QAQC for the geochemical samples as reviewed and was found adequate for this Initial Assessment, but scatter and an apparent time-variant bias in CRM material analysis requires further study accompanied by a remediation program to better underpin PFS and FS studies; this QAQC study and remediation is currently underway.

22.2 Mining Methods

Reasonable open pit and underground mine plans, mine production schedules, mine capital and operating costs have been developed based on inferred, indicated, and measured mineral resources of the geological block models for Grass River and Thompson Brothers.

22.3 Recovery Methods

The current recovery method is based on the metallurgical tests performed by PMC and SGS laboratory facilities. The method of spodumene recovery is considered conventional based on the current industry standard. The performance of this recovery method is supported by existing spodumene process mills that are currently in production.

The process method consists of pre-concentration methods such as ore sorting, Dense Media Separation (DMS) and magnetic separation that can eliminate the unwanted gangue material and magnetic iron impurities. The DMS stages are also placed to collect spodumene product of approximately 6% Li_2O before flotation and reduce circuit load for the remainder of the process. Following pre-concentration, flotation stages are implemented to remove mica and collect spodumene product.

In the metallurgical tests, there are slight variation in the proposed flowsheet and recovery for the Thompson Brothers and Grass River Deposit performed by PMC and SGS respectively. In the current flowsheet, ore from both deposits are send to the same mill, using the corresponding recoveries. Although, it is fair assumption for the current level of study, additional metallurgical tests are recommended for both deposits using the same flowsheet to verify the spodumene recoveries of each deposit.

22.4 Infrastructure

As mentioned in Chapter 15: Infrastructure, the main infrastructure outlined in the report are:

- Access road connecting the nearby Highway 393 and the mine site.
- On-site buildings for office structures, processing plants, workshops, laboratories and etc.
- The required power facilities, substations, and transmission lines.
- The water management of potable water and process water.
- The disposal and usage of fine tailings and waste rock from mining and processing activities.
- The required infrastructure for the treatment of wastewater from processing.

Based on the current understanding of the soil properties, the access road will be approximately 5m in width and in line with gravel road construction standards. The road is constructed using pre-stripping material from development activities and can accommodate B-train Doubles that are 2.5m wide. The ground condition is scouted to be terra firma for most of the road area, with some marsh areas. However, there are still uncertainties regarding the hydrogeology, hydrology, soil condition and topography of the Thompson Brothers Property. These parameters are to be focused on in the next stage of study to minimize risks and uncertainties in the feasibility of the road and building construction.

With the current processing flowsheet, the wastewater from processing will contain minimal hazardous chemicals that will pose threats to the surrounding environment.

22.5 Environmental Studies, Permitting and Plans

- Baseline studies were initiated in the spring of 2022 and seasonal studies are ongoing with the aim of collecting two years of baseline data to support the provincial environmental application process.
- The Project is not anticipated to require environmental review under the Federal *Impact Assessment Act* (IAA), although the ECCC Minister may designate a physical activity that is not prescribed by the Physical Activities Regulations if, in their opinion, either the carrying out of that physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.
- A provincial environmental review and authorisation process will be required, in addition to other authorizations that will be identified as Project planning evolves.
- The proposed watercourse diversion will require an authorisation under the Federal *Fisheries Act* and compensation or an offset plan. The authorisation process can be lengthy and engineering and environmental studies will be required to support the application.
- The town of Snow Lake is the nearest community to the Project area. The Project lies within Treaty 5 land with several Indigenous communities' signatories. The MCCN have indicated that the Project lies within the Nation's asserted Traditional Territory.
- Seven Indigenous communities have been identified as being potentially interested in the Project, although most of these communities reside more than 100 km from the Project area. Early engagement of the seven identified Indigenous communities and the mayors of the closest towns was initiated in 2022 and further engagement is ongoing and planned. Engagement is currently focussed on the MCCN, NHCN and MMF.

- A Mine closure plan will be required as part of the environmental approval process.

22.6 Economic Estimates and Analysis

The initial capital cost required in year 0 is estimated at $50 million, whereas the remaining capital in subsequent years is estimated at $96 million. The bulk of the remaining capital is spent in year 1 to build the mill, powerline and substation, and other infrastructure costs. A closure cost of $10 million at the end of production. The total projected CAPEX is $146 million. After the initial $50 million in year 0, the remainder of CAPEX will be taken from revenue.

The most significant unit operating costs are underground mining estimated at $33.5 per tonne mined, and processing costs at $15.8 per tonne milled. The total operating cost over the LOM is estimated at $613 million. Mining cost makes up around 50% of the total operating cost, followed by underground development at 20%, and processing costs at 17% of the total operating cost.

Cash flow calculations are based on a spodumene price estimation of $3500 per tonne, and $504 for the DSO product, along with NPV discount rate of 7% and private royalty of 1%. Provincial and federal taxes are assumed and presented in Section 19 of the report. Pre-tax and post-tax key economic results for all mineral resources are presented in Table 22-1 below.

Table 22-1: Summary of Key Economic Results for All Mineral Resources.

Economic Results – All Mineral Resources		
	Pre-Tax	Post-Tax
Net Present Value	$1.76 Billion	$1.19 Billion
Internal Rate of Return	208 %	170 %
Payback Period	14 Months	14 Months

The key economic results based on measured and indicated resources is summarized in Table 22-2 below.

Table 22-2: Summary of Key Economic Results for Measured and Indicated Mineral Resources.

Economic Results – Measured and Indicated Mineral Resources		
	Pre-Tax	**Post-Tax**
Net Present Value	$1.52 Billion	$1.03 Billion
Internal Rate of Return	175 %	143 %
Payback Period	15 Months	15 Months

A Sensitivity analysis is conducted to study the variation of pre-tax NPV when changing major economic inputs. This includes varying the spodumene selling price, project CAPEX and OPEX, mill recovery, and NPV discount rate. The analysis shows that the pre-tax NPV is most sensitive to changes of spodumene price and most resistant to CAPEX fluctuations. An increase of 30% in spodumene price can potentially increase the NPV to around $2.5 billion. The pre-tax NPV is estimated to remain above $1 billion in case of a 30% decrease in spodumene price. The sensitivity analysis is also conducted based on measured and indicated resources and the detailed results are presented in 19.5.

23. Recommendations

At the current level of study for this Initial Assessment, the Thompson Brothers deposit and the Grass River deposit shows great economic potential. Based on work completed, additional drilling and testing is required to reach a conclusive interpretation of the project feasibility. The recommended next stages of exploration and studies are as shown below:

23.1 Phase 1: Exploration

Snow Lake Resources has acquired additional claims on ground prospective for additional spodumene dikes; the plan is to perform basic exploration of this ground prior to any additional drilling of TBL and GR deposits. The program, comprising field mapping and prospecting, including helicopter support is to be directed to areas of outcrop exposure.

Estimated cost: $1,275,700

23.2 Phase 2: Drilling

Grass River Swarm: 25 holes @ 200m/hole = 5,000 m. At $450/m = $2.25 M (can be done in the fall of 2023)

TBL Dike: 20 holes @ 400m/hole = 8,000m. At $450/m = $3.60 M (can be done in the winter of 2024)

Total cost is estimated at $5.85 M all in.

Factoring in contingencies @10% adds $585,000 for a final cost of $6,435,000.00.

Estimated cost: $ 6,435,000 USD

23.3 Phase 3: Metallurgical analysis and optimization

As part of the next level of study, additional metallurgical testing is required to confirm the recovery and grade of the spodumene product produced, and to confirm economic feasibility. The current flowsheet leaves room for optimization. Assuming the results remain positive, the project will be able to proceed to prefeasibility study.

Estimated cost: $ 200,000 USD

23.4 Phase 4: Geotechnical study and closure plan

To optimize pit slopes and stopes as well as to ensure a safe design of open pit and underground development, a geotechnical drilling and mapping program consisting of at least 4 drill holes will be required to support Prefeasibility Study. A closure plan will be required for permitting and to support the Prefeasibility Study.

Estimated cost: $ 450,000 USD

23.5 Phase 5: Prefeasibility Level Report

With addition geological information, the mining and processing methods can be updated and optimized. The findings and changes will be presented in the format of a Prefeasibility level report that will be compliant with United States Securities and Exchange Commission (SEC) Modernized Property Disclosure Requirements for Mining Registrants.

Estimated cost: $ 622,000 USD

23.6 Environmental Recommendations

- Snow Lake Resources has no environmental or social policies at this stage. It is considered best practice for mining companies to develop and implement such policies which are signed by senior management. It is therefore recommended that the company develops these policies for implementation.
- Continue baseline studies to provide a robust baseline characterisation that can support the required environmental application process, and which will also be used to compare future monitoring data against. The baseline programs should be reviewed now that the Project infrastructure and activities have been defined.
- Alternatives should be considered for the placement of infrastructure and for alternative designs of infrastructure to minimise environmental and social impact, as well as considering engineering feasibility and cost. This should be included in the environmental assessment work to inform the provincial application process.
- Develop an environmental approval and permitting plan with a schedule.
- The proposed watercourse diversion will require significant time and effort to design and conduct the environmental studies needed to support an application in terms of the Federal *Fisheries Act*. It is recommended that Snow Lake Resources approach DFO as soon as basic design and impact mitigation information is available to support constructive discussion and planning with the regulator. A DFO authorisation can take a significant amount of time and potentially delay the Project.

- Implement the 2023 engagement plan to progress engagement with Indigenous communities as well as stakeholders such as non-Indigenous communities, regulators and other interested parties. Positive engagement and relationship building with the Indigenous communities and stakeholders is important to progress the Project and environmental applications.
- Compile a Mine Closure Plan and ensure the financial assurance is in place prior to commencement of the Project.
- Ensure that all required approvals and permits are in place prior to commencement of the Project.

24. References

Ansdell, K. M., Lucas, S. B., Connors, K., & Stern, R. A. (1995). Kisseynew metasedimentary gneiss belt, Trans-Hudson orogen (Canada): Back-arc origin and collisional inversion. Geology, 23(11), 1039-1043

Baker, D. R. (1998). The escape of pegmatite dikes from granitic plutons; constraints from new models of viscosity and dike propagation. The Canadian Mineralogist, 36(2), 255-263

Bannatyne, B. B. (1985). Industrial minerals in rare-element pegmatites of Manitoba; Manitoba Energy and Mines, Geological Services. Economic Geology Report ER84-1, 5

Benn, D. N. (2022). White Micas as a tool for tracking pegmatite evolution and its use in Li exploration. A case study of Wekusko Lake, Manitoba, Canada

Benn, D., Martins, T., & Linnen, R. (2022). Fractionation and Enrichment Patterns in White Mica from Li Pegmatites of the Wekusko Lake Pegmatite Field, Manitoba, Canada. The Canadian Mineralogist, 60(6), 933-956

Černý, P. (1991). Rare-element granitic pegmatites. Part I: Anatomy and internal evolution of pegmatite deposits. Geoscience Canada, 18(2), 49-67

Černý, P., London, D., & Novák, M. (2012). Granitic pegmatites as reflections of their sources. Elements, 8(4), 289-294

Foremost lithium. Foremost Lithium Resource and Technology. (n.d.). https://foremostlithium.com/properties/zoro-lithium-project.html

Government of Canada. 2021. First Nations and Treaty Areas in Manitoba. https://www.sac-isc.gc.ca/eng/1100100020576/1616073943706

Government of Manitoba. 1996. Manitoba Laws. Retrieved from The Provincial Parks Act - C.C.S.M. c. P20: https://web2.gov.mb.ca/laws/statutes/ccsm/p020ei.php

Government of Manitoba. 2022a. Manitoba Laws. Retrieved from The Environment Act C.C.S.M. April 22. 2022. c.E125: https://web2.gov.mb.ca/laws/statutes/ccsm/e125e.php

Government of Manitoba. 2022a. Manitoba Laws. Retrieved from The Endangered Species and Ecosystems Act: https://web2.gov.mb.ca/laws/statutes/ccsm/e111e.php

Manitoba Sustainable Development, Work Permit No. 2022-02-25-008

Omanayin, Y. A., Waziri, N. M., Onoduku, U. S., Alabi, A. A., & Amadi, A. N. (2022). Geology and Geochemistry of Pegmatites of Ogodo–Odobola, North Central Nigeria: A Status Review

SLR. 2023a. Baseline Report – Air Quality and Climate. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023b. Baseline Report – Aquatic Ecology. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023c. Baseline Report – Terrestrial Ecology. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023d. Baseline Report – Groundwater. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023e. Baseline Report – Geochemistry. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023f. Baseline Report – Hydrology. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023g. Baseline Report – Noise and Vibration. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023h. Baseline Report – Surface Water Quality. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

SLR. 2023i. Baseline Report – socioeconomic, Land Use and Indigenous Communities. Snow Lake Lithium Project. SLR Consulting (Canada) Ltd.

Western Heritage. 2023: Thompson Brothers Lithium Property Baseline Report – Archaeology, Heritage and Cultural Resources. Heritage Permit #A67-22

25. Reliance on Information Provided by the Registrant

ABH Engineering has relied upon information provided by the registrant for matters discussed in this Initial Assessment. The main objective of preparing this report was to ensure maximum clarity and avoid any potential for misinterpretation.

26. Appendices

Appendix A

Table A-1- SLR's mineral dispositions to date

Disposition Number	Disposition Name	Disposition/Lease Type	Map Number	Issue Date	Good To Date	Term Expiry Date	Area (ha)	Status
MB1052	ADD 1052	Mining Claim	63J13SE	2001-07-20	2030-07-20	2030-09-18	235	Converted To Lease
MB1053	ADD 1053	Mining Claim	63J13SE	2001-07-20	2030-07-20	2030-09-18	83	Converted To Lease
MB12130	BAZ 12130	Mining Claim	63J13NE	2017-12-05	2029-12-05	2030-02-03	192	GOOD STANDING
MB12132	BAZ 12132	Mining Claim	63J13NE	2017-12-05	2030-12-05	2031-02-03	256	GOOD STANDING
MB12631	PGB12631	Mining Claim	63J14SW	2022-10-12	2024-10-12	2024-12-11	240	GOOD STANDING
MB12632	PGB12632	Mining Claim	63J14SE, 63J14SW	2022-10-12	2024-10-12	2024-12-11	192	GOOD STANDING
MB12633	PGB12633	Mining Claim	63J14SE	2022-10-12	2024-10-12	2024-12-11	240	GOOD STANDING
MB12634	PGB12634	Mining Claim	63J14SE	2022-10-12	2024-10-12	2024-12-11	240	GOOD STANDING
MB12635	PGB12635	Mining Claim	63J14SE	2022-10-12	2024-10-12	2024-12-11	240	GOOD STANDING
MB12900	PGB2900	Mining Claim	63J13SE	2022-01-20	2024-01-20	2024-03-20	256	GOOD STANDING
MB12901	PGB2901	Mining Claim	63J13SE	2022-01-20	2024-01-20	2024-03-20	256	GOOD STANDING
MB12902	PGB2902	Mining Claim	63J13SE	2022-01-20	2024-01-20	2024-03-20	256	GOOD STANDING
MB12903	PGB2903	Mining Claim	63J13SE	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12904	PGB2904	Mining Claim	63J13SE, 63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12905	PGB2905	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12906	PGB2906	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12907	PGB2907	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING

MB12908	PGB2908	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12909	PGB2909	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	112	GOOD STANDING
MB12910	PGB2910	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	112	GOOD STANDING
MB12911	PGB2911	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12912	PGB2912	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12913	PGB2913	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12914	PGB2914	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12915	PGB2915	Mining Claim	63J13SE, 63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12916	PGB2916	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12917	PGB2917	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12918	PGB2918	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12919	PGB2919	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12920	PGB2920	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	144	GOOD STANDING
MB12921	PGB2921	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	174	GOOD STANDING
MB12922	PGB2922	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	152	GOOD STANDING
MB12923	PGB2923	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12924	PGB2924	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12925	PGB2925	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12926	PGB2926	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	212	GOOD STANDING
MB12927	PGB2927	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	202	GOOD STANDING
MB12928	PGB2928	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING

MB12929	PGB2929	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12934	PGB2934	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12935	PGB2935	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12936	PGB2936	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	136	GOOD STANDING
MB12937	PGB2937	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	64	GOOD STANDING
MB12938	PGB2938	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	178	GOOD STANDING
MB12939	PGB2939	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12940	PGB2940	Mining Claim	63J14SW	2022-01-21	2024-01-21	2024-03-21	256	GOOD STANDING
MB12941	PGB2941	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12942	PGB2942	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12943	PGB2943	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12944	PGB2944	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12945	PGB2945	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12946	PGB2946	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12947	PGB2947	Mining Claim	63J14SW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12954	PGB2954	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	128	GOOD STANDING
MB12955	PGB2955	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12956	PGB2956	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12957	PGB2957	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12958	PGB2958	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12959	PGB2959	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	128	GOOD STANDING

MB12960	PGB2960	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12961	PGB2961	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12962	PGB2962	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	128	GOOD STANDING
MB12963	PGB2963	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12964	PGB2964	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	256	GOOD STANDING
MB12965	PGB2965	Mining Claim	63J14NW	2022-01-25	2024-01-25	2024-03-25	128	GOOD STANDING
MB12967	ROCH2967	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	72	GOOD STANDING
MB12968	ROCH2968	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	256	GOOD STANDING
MB12969	ROCH2969	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	139	GOOD STANDING
MB12970	ROCH2970	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	248	GOOD STANDING
MB12972	ROCH2972	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	99	GOOD STANDING
MB12973	ROCH2973	Mining Claim	63J13SE	2022-01-30	2024-01-30	2024-03-30	75	GOOD STANDING
MB12974	ROCH2974	Mining Claim	63J13SE	2022-10-12	2024-10-12	2024-12-11	89	GOOD STANDING
MB12975	ROCH2975	Mining Claim	63J13SE	2022-10-12	2024-10-12	2024-12-11	148	GOOD STANDING
MB12976	ROCH2976	Mining Claim	63J13SE	2022-10-12	2024-10-12	2024-12-11	104	GOOD STANDING
MB12977	PGB12977	Mining Claim	63J14SW	2022-10-12	2024-10-12	2024-12-11	216	GOOD STANDING
MB12978	PGB12978	Mining Claim	63J14SW	2022-10-12	2024-10-12	2024-12-11	192	GOOD STANDING
MB12979	PGB2979	Mining Claim	63J14SW	2022-10-12	2024-10-12	2024-12-11	192	GOOD STANDING
MB13493	TBL 001	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	256	GOOD STANDING
MB13494	TBL 002	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	243	GOOD STANDING
MB13495	TBL 003	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	78	GOOD STANDING

MB13496	TBL 004	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	151	GOOD STANDING
MB13497	TBL 005	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	67	GOOD STANDING
MB13498	TBL 006	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	230	GOOD STANDING
MB13499	TBL 007	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	185	GOOD STANDING
MB13500	TBL 008	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	78	GOOD STANDING
MB13501	TBL 009	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	206	GOOD STANDING
MB13502	TBL 010	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	173	GOOD STANDING
MB13503	TBL 011	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	72	GOOD STANDING
MB13504	TBL 012	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	250	GOOD STANDING
MB13505	TBL 013	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	237	GOOD STANDING
MB13506	TBL 014	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	121	GOOD STANDING
MB13507	TBL 015	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	256	GOOD STANDING
MB13508	TBL 016	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	220	GOOD STANDING
MB13509	TBL 017	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	240	GOOD STANDING
MB13510	TBL 018	Mining Claim	63J13NE	2018-04-06	2025-04-06	2025-06-05	256	GOOD STANDING
MB13784	HERB 15	Mining Claim	63J13NW	2021-06-23	2024-06-23	2024-08-22	60	GOOD STANDING
MB13785	HERB 5	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	64	GOOD STANDING
MB13851	HERB 1	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	240	GOOD STANDING
MB13852	HERB 2	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	256	GOOD STANDING
MB13853	HERB 3	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	189	GOOD STANDING
MB13854	HERB 4	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	82	GOOD STANDING

MB13855	HERB 21	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	50	GOOD STANDING
MB13856	HERB 6	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	163	GOOD STANDING
MB13857	HERB 7	Mining Claim	63J13NW	2021-06-19	2024-06-19	2024-08-18	88	GOOD STANDING
MB13858	HERB 8	Mining Claim	63J13NW	2021-06-22	2024-06-22	2024-08-21	174	GOOD STANDING
MB13859	HERB 9	Mining Claim	63J13NW	2021-06-22	2024-06-22	2024-08-21	246	GOOD STANDING
MB13860	HERB 10	Mining Claim	63J13NW	2021-06-22	2024-06-22	2024-08-21	252	GOOD STANDING
MB13861	HERB 11	Mining Claim	63J13NW	2021-06-20	2024-06-20	2024-08-19	250	GOOD STANDING
MB13862	HERB 12	Mining Claim	63J13NW	2021-06-20	2024-06-20	2024-08-19	138	GOOD STANDING
MB13863	HERB 13	Mining Claim	63J13NW	2021-06-23	2024-06-23	2024-08-22	138	GOOD STANDING
MB13864	HERB 14	Mining Claim	63J13NW	2021-06-23	2024-06-23	2024-08-22	219	GOOD STANDING
MB13865	HERB 22	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	56	GOOD STANDING
MB13866	HERB 16	Mining Claim	63J13NW	2021-06-23	2024-06-23	2024-08-22	40	GOOD STANDING
MB13867	HERB 17	Mining Claim	63J13NW	2021-06-23	2024-06-23	2024-08-22	106	GOOD STANDING
MB13868	HERB 18	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	32	GOOD STANDING
MB13869	HERB 19	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	124	GOOD STANDING
MB13870	HERB 20	Mining Claim	63J13NW	2021-06-24	2024-06-24	2024-08-23	220	GOOD STANDING
MB5735	CRO 5735	Mining Claim	63J13NE	2010-02-11	2030-02-11	2030-04-12	216	GOOD STANDING
MB5736	CRO 5736	Mining Claim	63J13NE	2010-02-11	2030-02-11	2030-04-12	202	GOOD STANDING
MB5737	CRO 5737	Mining Claim	63J13NE, 63J13SE	2010-02-11	2030-02-11	2030-04-12	250	GOOD STANDING
MB6301	ADD 6301	Mining Claim	63J13SE	2006-03-24	2030-03-24	2030-05-23	110	GOOD STANDING
MB6303	ADD 6303	Mining Claim	63J13NE, 63J13SE	2008-03-17	2030-03-17	2030-05-16	180	GOOD STANDING

MB6305	ADD 6305	Mining Claim	63J13NE	2009-02-11	2030-02-11	2030-04-12	224	GOOD STANDING
MB9830	ADD 9830	Mining Claim	63J13SE	2018-03-06	2030-03-06	2030-05-05	40	GOOD STANDING
ML339		Mineral Lease		2023-04-06	2024-04-06	2024-05-06	318	GOOD STANDING
P2818F	ADD 13	Mining Claim	63J13SE	1994-09-30	2030-09-30	2030-11-29	16	GOOD STANDING
P3033F	ADD 3033	Mining Claim	63J13SE	1995-04-21	2031-04-21	2031-06-20	32	GOOD STANDING
P3035F	ADD 3035	Mining Claim	63J13SE	1995-04-21	2030-04-21	2030-06-20	53	GOOD STANDING
P3203F	ADD 3203	Mining Claim	63J13SE	1995-09-11	2030-09-11	2030-11-10	82	GOOD STANDING
P7463B	THOMPSON #2	Mining Claim	63J13SE	1964-11-05	2030-11-05	2031-01-04	21	GOOD STANDING
P7464B	THOMPSON #3	Mining Claim	63J13SE	1964-11-05	2030-11-05	2031-01-04	21	GOOD STANDING
W47378	THOMPSON 7	Mining Claim	63J13SE	1982-07-08	2030-07-08	2030-09-06	16	GOOD STANDING
W47380	THOMPSON 6	Mining Claim	63J13SE	1982-07-08	2031-07-08	2031-09-06	16	GOOD STANDING
W49853	ADD 49853	Mining Claim	63J13SE	1996-04-22	2031-04-22	2031-06-21	32	GOOD STANDING

Table A-2: Historic and current drilling information by year

Year	Com	Pros	DDH ID	AZIM	DIP	CAS	DEPT	EASTI	Northing
1942	**SG**	N/A	1	028	-35	0.60	23.50	452893	6077492.
1942	**SG**	N/A	2	028	-35	3.70	21.30	452876.	6077492.
1942	**SG**	N/A	3	028	-35	0.50	24.70	452861.	6077496.
1942	**SG**	N/A	4	028	-35	0.90	24.40	452848.	6077506.
1942	**SG**	N/A	5	028	-35	2.30	22.90	452837.	6077518.
1942	**SG**	N/A	6	028	-35	3.70	24.70	452808.	6077530.
1942	**SG**	N/A	7	028	-35	4.00	26.50	452823.	6077525.
1942	**SG**	N/A	8	028	-35	4.00	29.00	452795.	6077537.

1942	**SG**	N/A	9	028	-35	1.50	29.90	452781.	6077543.
1942	**SG**	N/A	10	028	-35	1.50	24.40	452768.	6077551.
1942	**SG**	N/A	11	028	-35	3.70	25.90	452754.	6077557.
1942	**SG**	N/A	11A	028	-35	4.50	26.80	452754.	6077557.
1942	**SG**	N/A	12	028	-35	6.70	29.90	452741.	6077564.
1942	**SG**	N/A	13	028	-35	5.50	31.40	452727.	6077569.
1942	**SG**	N/A	14	028	-35	3.00	31.40	452708.	6077569.
1942	**SG**	N/A	15	028	-35	4.60	25.60	452697.	6077580.
1942	**SG**	N/A	16	028	-35	4.30	22.90	452682.	6077585.
1942	**SG**	N/A	17	028	-35	1.50	24.40	452667.	6077589.
1942	**SG**	N/A	18	028	-35	2.00	43.60	452899.	6077473.
1942	**SG**	N/A	19	028	-35	2.00	42.70	452914.	6077470.
1942	**SG**	N/A	20	028	-35	0.90	76.20	452736.	6077491.
1955	**CD**	Viol	101	260	-45	3.96	78.64	454360.	6078767.
1955	**CD**	Viol	102	260	-45	3.09	59.44	454362	6078583.
1955	**CD**	Viol	103	260	-45	6.10	81.69	454361.	6078645.
1955	**CD**	Viol	104	260	-45	4.57	71.32	454360.	6078704.
1955	**CD**	Viol	105	260	-40	14.02	53.04	454360.	6078767.
1955	**CD**	Viol	106	260	-65	7.01	79.86	454359.	6078767.
1955	**CD**	Viol	107	260	-45	6.40	73.76	454363.	6078675.
1955	**CD**	Viol	108	080	-50	5.18	83.82	454276.	6078567.
1955	**CD**	Viol	109	030	-50	3.35	50.60	454284.	6078448.
1955	**CD**	Viol	110	090	-50	5.64	72.24	454269.	6078393.
1955	**CD**	Viol	111	270	-45	10.06	66.75	454322.	6078392.
1955	**CD**	Viol	112	260	-60	5.18	134.1	454388.	6078528.
1955	**CD**	Viol	113	260	-60	3.35	119.4	454428.	6079065.
1955	**CD**	Viol	114	260	-60	5.18	123.9	454395.	6078772.
1955	**CD**	Viol	115	090	-50	7.62	108.8	454287.	6078819.

1955	**CD**	Viol	116	270	-45	5.79	112.4	454391	6078880.
1955	**CD**	Viol	117	090	-45	16.15	94.49	454309.	6078942.
1956	**CD**	Viol	118	090	-45	5.18	82.60	454324.	6079004.
1956	**CD**	Viol	119	270	-45	13.72	73.76	454428.	6079065.
1956	**CD**	Viol	120	090	-45	14.94	63.09	454363.	6079125.
1956	**CD**	Viol	121	270	-59	7.62	119.7	454444.	6079004.
1956	**CD**	Viol	122	270	-60	20.42	198.7	454493.	6078973.
1956	**CD**	Viol	123	270	-60	8.69	201.4	454449.	6078759.
1956	**CD**	Viol	124	270	-63	6.55	188.6	454430.	6078545.
1956	**CD**	Viol	125	270	-63	3.35	113.0	454369.	6078423.
1956	**CD**	Viol	201	270	-45	4.57	63.09	454205.	6079156.
1978/	**TAA**	TB 1	1	090	-60	0.61	58.77	454080.	6078479.
1981	**TB**	TB 2	2	090	-47	0.61	60.96	454236.	6078655.
1997	**SR**	TB	CAR-97-1	330	-70	3.00	197.2	454259.	6078493.
1997	**SR**	TB 3	CAR-97-2	300	-70	12.00	258.0	454336.	6078798.
1997	**SR**	TB	CAR-97-3	300	-70	12.00	447.1	454148.	6078556.
2017	**MM/**	TB	TBL-001	300	-45	2.74	150.8	454268.	6078489.
2017	**MM/**	TB	TBL-002	300	-45	7.62	151.0	454135.	6078340.
2017	**MM/**	TB	TBL-003	300	-45	6.10	224.0	454306.	6078374.
2017	**MM/**	TB	TBL-004	300	-45	13.41	106.0	454213.	6078410.
2017	**MM/**	TB	TBL-005	300	-45	2.44	205.7	454355	6078453.
2017	**MM/**	TB	TBL- 006	300	-45	5.79	168.8	454241.	6078277.
2018	**MM/**	TB	TBL-007	300	-45	12.00	148.6	454596.	6078775.
2018	**MM/**	TB	TBL-008	300	-45	17.80	152.0	454652.	6078851.
2018	**MM/**	TB	TBL-009	300	-45	11.59	185.0	454724	6078922.
2018	**MM/**	TB	TBL-010	300	-45	12.68	200.0	454801.	6078991.
2018	**MM/**	TB	TBL-011	300	-45	6.53	194.0	454303.	6078945.
2018	**MM/**	TB	TBL-012	300	-45	4.16	209.0	454421.	6078966.

2018	**MM/**	TB	TBL-013	300	-45	4.30	280.0	454480.	6079047.
2018	**MM/**	TB	TBL-014	300	-45	4.34	255.5	454545.	6079074.
2018	**MM/**	TB	TBL-015	300	-45	2.50	179.0	454558.	6079122.
2018	**MM/**	TB	TBL-016	300	-45	4.80	152.0	454378.	6078554.
2018	**MM/**	TB	TBL-017	300	-65	4.20	236.0	454401.	6078542.
2018	**MM/**	TB	TBL-018	300	-65	7.67	299.0	454444.	6078516.
2018	**MM/**	TB	TBL-019	300	-44	7.25	152.0	454439.	6078632.
2018	**MM/**	TB	TBL-020	297	-64	8.70	209.0	454468.	6078615.
2018	**MM/**	TB	TBL-021	297	-76	2.50	371.0	454354.	6078452.
2018	**MM/**	TB	TBL-022	301	-69	2.58	287.0	454307	6078374.
2018	**MM/**	TB	TBL-023	299	-44	4.37	89.00	454491.	6078717.
2018	**MM/**	TB	TBL-024	301	-64	5.85	200.0	454511	6078704.
2022	**SLR**	TB	TBL-025	300	-45	3.81	209.0	454532.	6078796.
2022	**SLR**	TB	TBL-026	300	-70	4.91	168.0	454533.	6078796.
2022	**SLR**	TB	TBL-027	300	-75	9.87	347.0	454596.	6078775.
2022	**SLR**	TB	TBL-028	300	-76	2.76	62.00	454659	6078714.
2022	**SLR**	TB	TBL-029	300	-76	3.80	482.0	454658.	6078714.
2022	**SLR**	TB	TBL-030	300	-57	24.00	387.1	454597.	6078640.
2022	**SLR**	TB	TBL-031	300	-66	23.30	464.0	454597.	6078640.
2022	**SLR**	TB	TBL-032	300	-64	18.00	422.0	454540.	6078563.
2022	**SLR**	TB	TBL-033	300	-75	17.80	569.0	454540.	6078563.
2022	**SLR**	TB	TBL-034	300	-65	14.00	23.00	454498.	6078465.
2022	**SLR**	TB	TBL-035	300	-70	17.00	491.0	454498.	6078465.
2022	**SLR**	TB	TBL-036	300	-66	27.25	532.4	454486.	6078363.
2022	**SLR**	TB	TBL-037	300	-66	4.90	296.0	454357.	6078319.
2022	**SLR**	TB	TBL-038	300	-62	1.60	233.0	454354.	6078452.
2022	**SLR**	TB	TBL-039	300	-45	4.25	251.0	454241.	6078278.
2022	**SLR**	TB	TBL-040	300	-65	5.00	312.0	454241.	6078278.

2022	**SLR**	TB	TBL-041	300	-62	12.70	355.6	454317.	6078219.
2022	**SLR**	TB	TBL-042	300	-72	10.70	444.0	454317.	6078219.
2022	**SLR**	TB	TBL-043	300	-45	12.40	435.0	454232.	6078154.
2022	**SLR**	TB	TBL-044	300	-45	11.60	125.0	454625.	6078865.
2022	**SLR**	TB	TBL-045	300	-55	11.53	101.0	454625.	6078865.
2022	**SLR**	TB	TBL-046	300	-65	11.37	104.0	454625.	6078865.
2022	**SLR**	TB	TBL-047	300	-75	11.12	134.0	454625.	6078865.
2022	**SLR**	TB	TBL-048	300	-45	8.00	80.00	454664.	6078948.
2022	**SLR**	TB	TBL-049	300	-60	5.57	101.0	454664.	6078948.
2022	**SLR**	TB	TBL-050	300	-75	5.18	122.0	454664.	6078949.
2022	**SLR**	TB	TBL-051	300	-45	5.40	119.0	454698.	6078984.
2022	**SLR**	TB	TBL-052	300	-65	4.75	125.0	454698.	6078984.
2022	**SLR**	TB	TBL-053	300	-75	4.80	194.0	454698.	6078984.
2022	**SLR**	TB	TBL-054	300	-75	7.45	437.0	454349.	6078347.
2022	**SLR**	TB	BYP-001	9	-45	2.95	60.05	454442.	6079040.
2022	**SLR**	TB	BYP-002	13.5	-	2.85	181.9	454442.	6079039.
2022	**SLR**	TB	BYP-003	6.3	-	2.85	125.5	454423.	6079009.
2022	**SLR**	TB	BYP-004	8.2	-	2.75	111.8	454423.	6079009.
2022	**SLR**	TB	BYP-005	8.2	-	2.60	124.0	454423.	6079008.
2022	**SLR**	TB	BYP-006	352.1	-45	5.75	195.9	454397.	6078979.
2022	**SLR**	TB	BYP-007	350	-60	4.80	163.6	454397.	6078978.
2022	**SLR**	TB	BYP-008	283.5	-	2.65	172.8	454462.	6079048.
2022	**SLR**	GR	CBP-001	220	-45	2.50	197.0	452920.	6077381.
2022	**SLR**	GR	CBP-002	40	-45	2.87	242.0	452923	6077385.
2022	**SLR**	GR	CBP-003	220	-45	6.91	299.0	452871.	6077579.
2022	**SLR**	GR	CBP-004	220	-65	0.25	150.0	452871.	6077579.
2022	**SLR**	GR	CBP-005	220	-45	1.25	171.0	452723.	6077653.
2022	**SLR**	GR	CBP-006	220	-65	2.00	110.0	452723.	6077653.

2022	**SLR**	GR	CBP-007	210	-45	18.50	291.0	452611.	6077750.
2022	**SLR**	GR	CBP-008	220	-65	15.00	112.0	452611.	6077750.
2022	**SLR**	GR	GRP-001	40	-45	4.40	75.00	452804.	6077320.
2022	**SLR**	GR	GRP-002	40	-60	1.40	90.00	452804.	6077319.
2022	**SLR**	GR	GRP-003	40	-45	0.87	149.0	452765.	6077376.
2022	**SLR**	GR	GRP-004	40	-60	5.44	152.0	452765.	6077376.
2022	**SLR**	GR	GRP-005	40	-80	1.30	152.8	452765.	6077375.
2022	**SLR**	GR	GRP-006	200	-45	3.00	23.00	452779	6077393.
2022	**SLR**	GR	GRP-007	200	-70	1.20	26.00	452778.	6077393.
2022	**SLR**	GR	GRP-008	40	-45	0.70	176.0	452807.	6077267.
2022	**SLR**	GR	GRP-009	40	-60	1.28	233.0	452807.	6077267.
2022	**SLR**	GR	GRP-010	40	-45	2.40	266.0	452827.	6077232.
2022	**SLR**	GR	GRP-011	40	-60	1.00	224.0	452827.	6077232.
2022	**SLR**	GR	GRP-012	40	-75	6.71	272.0	452827.	6077232.
2022	**SLR**	GR	GRP-013	40	-75	1.00	275.0	452807.	6077267.
2022	**SLR**	GR	GRP-014	40	-45	1.50	242.0	452767.	6077268.
2022	**SLR**	GR	GRP-015	40	-60	0.10	302.0	452766.	6077267.
2022	**SLR**	GR	GRP-016	40	-75	0.30	203.0	452766.	6077267.
2022	**SLR**	GR	GRP-017	40	-45	1.37	257.0	452749	6077299.
2022	**SLR**	GR	GRP-018	45	-60	0.55	236.0	452748.	6077299.
2022	**SLR**	GR	GRP-019	40	-45	18.00	263.0	452925.	6077227.
2022	**SLR**	GR	GRP-020	40	-60	12.25	257.0	452925.	6077228.
2022	**SLR**	GR	GRP-021	40	-45	1.70	206.0	452875.	6077220.
2022	**SLR**	GR	GRP-022	40	-65	17.73	209.0	452876	6077220.
2022	**SLR**	GR	GRP-023	40	-45	1.05	236.0	452948.	6077139.
2022	**SLR**	GR	GRP-024	40	-45	1.50	262.0	452717.	6077450.
2022	**SLR**	GR	GRP-025	40	-65	1.30	154.0	452717.	6077450.
2022	**SLR**	GR	GRP-026	220	-45	29.82	68.00	452725.	6077454.

2022	**SLR**	GR	GRP-027	220	-65	1.55	101.0	452725.	6077455.
2022	**SLR**	GR	SGP-001	40	-45	2.35	176.0	452703.	6077518.
2022	**SLR**	GR	SGP-002	40	-60	3.30	216.0	452703.	6077518.
2022	**SLR**	GR	SGP-003	40	-45	5.12	201.0	452634.	6077506.
2022	**SLR**	GR	SGP-004	40	-60	1.10	252.0	452634.	6077506.
2022	**SLR**	GR	SGP-005	40	-45	7.33	302.0	452583.	6077541.
2022	**SLR**	GR	SGP-006	40	-60	5.00	293.8	452583.	6077541.
2022	**SLR**	GR	SGP-007	40	-45	7.10	191.0	452563.	6077624.
2022	**SLR**	GR	SGP-008	40	-60	2.20	125.0	452563	6077623.
2022	**SLR**	GR	SGP-008A	40	-60	Wed	248.0	452563	6077623.
2022	**SLR**	GR	SGP-009	220	-45	3.70	146.0	452705.	6077518.
2022	**SLR**	GR	SGP-010	40	-45	2.30	247.0	452542.	6077557.
2022	**SLR**	GR	SGP-011	220	-45	3.00	107.0	452565.	6077627.

Abbreviations:

CD Combined Developments

GR Grass River

MM Manitoba Minerals

QU Quantum Minerals (Nova)

SG Sherritt Gordon

SLR Snow Lake Resources

TAA Thompson and Associates

TB Thompson Brothers

Table A-3 Drilling Highlights

Hole	Sample ID	From	To	Length (m)	Li (%)	Li_2O (%)
TBL- 001	TBL001-009 to TBL001-022	35.40	47.00	11.60	0.63	1.42
TBL- 002	TBL002-002	8.50	9.34	0.84	0.24	0.52
TBL-	TBL002-002 to TBL002-018	19.00	24.43	5.43	0.71	1.54
TBL- 003	TBL003-015 to TBL003-042	160.42	181.50	21.08	0.81	1.74
TBL- 004	TBL004-003 to TBL004-028	33.48	54.63	21.15	0.72	1.55
TBL- 005	TBL005-003 to TBL005-011	139.59	146.10	6.51	0.59	1.28
TBL- 007	SRC146514-SRC146516	111.27	113.68	2.41	0.29	0.65
TBL- 008	SRC146543-SRC146547	87.70	91.50	3.80	0.51	1.10
TBL- 009	SRC146559-SRC146561	108.75	110.60	1.85	0.53	1.15
TBL- 009	SRC146564-SRC146566	112.68	115.17	2.49	0.39	0.84
TBL- 010	SRC146583-SRC146584	141.61	143.23	1.62	0.20	0.44
TBL- 014	SRC146697-SRC146701	73.35	76.68	3.33	0.27	0.59
TBL- 016	SRC146747-SRC146754	82.12	90.13	8.01	0.68	1.46
TBL-016	SRC1467759-SRC146762	99.60	102.43	2.83	0.55	1.18
TBL- 017	SRC146770-SRC146801	150.00	176.94	26.94	0.71	1.53
TBL- 018	SRC146827-SRC146843	255.00	269.80	14.80	0.73	1.58
TBL- 019	SRC146862-SRC146865	86.00	89.93	3.93	0.10	1.51
TBL- 019	SRC146872-SRC146876	97.00	100.54	3.54	0.64	1.39
TBL-020	SRC146887-SRC146900	186.00	198.00	12.00	0.62	1.34
TBL- 021	SRC146931-SRC146957	337.00	359.00	22.00	0.37	0.79
TBL- 022	SRC146976-SRC146985	249.00	258.00	9.00	0.58	1.24
TBL- 023	SRC104507-SRC104524	60.00	74.00	14.00	0.68	1.47
TBL- 024	SRC104544-SRC104569	154.00	177.00	23.00	0.72	1.55
TBL- 025	178106-178120	21.00	39.00	18.00	0.71	1.52
TBL- 026	178154-178155	63.64	65.00	1.36	0.39	0.85

TBL- 027	178175-178201	233.00	267.50	34.50	0.70	1.49
TBL- 029	178221-178230	443.50	454.00	10.50	0.50	1.08
TBL- 031	178266-178272	418.50	425.73	7.23	0.68	1.47
TBL- 032	178289-178299	341.00	352.34	11.34	0.70	1.51
TBL- 035	178378-178391	429.50	447.47	17.97	0.63	1.36
TBL- 038	178426-178445	193.50	218.42	24.92	0.71	1.52
TBL- 039	178454-178456	194.60	196.85	2.25	0.56	1.20
TBL- 040	178465	225.32	226.34	1.02	0.34	0.74
TBL-040	178469	243.86	244.67	0.81	0.47	1.00
TBL- 041	178478	319.60	322.50	2.90	0.47	1.02
TBL-044	178501-178504	54.57	57.94	3.37	0.73	1.56
TBL- 045	178511-178516	60.50	66.03	5.53	0.70	1.50
TBL- 046	178529-178533	74.00	78.08	4.08	0.49	1.05
TBL- 048	178548	43.28	44.52	1.24	0.41	0.89
TBL- 049	178559-178561	46.18	48.37	2.19	0.57	1.24
TBL- 050	178578-178588	63.13	73.92	10.79	0.58	1.26
TBL- 052	178606	65.00	66.50	1.50	0.33	0.70
BYP-001	178803-178810	12.00	19.00	7.00	0.57	1.46
BYP-002	178834-178836	27.50	30.50	3.00	0.55	1.19
BYP-004	178845-178848	35.50	40.00	4.50	0.40	0.87
CBP-001	54706	29.50	30.50	1.00	0.51	1.09
CBP-001	54714-54721	179.87	188.00	8.13	0.52	1.12
CBP-003	54734-54736	27.60	29.60	2.00	0.57	1.22
CBP-005	54743-54746	3.00	7.50	4.50	0.54	1.15
CBP-006	54764-54765	17.00	19.33	2.33	0.86	1.85
CBP-006	54779	32.40	33.08	0.68	0.66	1.42

CBP-006	54784-54785	38.00	41.00	3.00	0.80	1.72
CBP-007	54799-54813	30.90	46.86	15.96	0.91	1.96
CBP-007	54810	43.50	45.00	1.50	1.44	3.10
GRP-001	51503-51507	34.80	39.39	-4.11	0.39	0.84
GRP-001	51504	36.00	37.10	1.10	0.71	1.54
GRP-001	51511-51513	41.86	44.22	2.36	0.43	0.92
GRP-002	51520-51524	69.00	75.00	6.00	0.59	1.27
GRP-003	51532-51537	16.04	22.00	5.96	1.11	2.38
GRP-003	51546-51551553	77.05	83.37	6.32	0.83	1.79
GRP-004	51571-51576	18.92	24.50	5.58	0.41	0.88
GRP-004	51584	96.10	97.00	0.90	0.52	1.12
GRP-004	51596-51598	108.24	112.00	3.76	0.64	1.37
GRP-005	51617-51625	30.50	41.00	10.50	0.63	1.34
GRP-006	51634-51637	4.00	8.00	4.00	0.63	1.35
GRP-006	51644-51647	13.10	17.00	3.90	0.98	2.11
GRP-007	51654-51659	5.00	11.00	6.00	0.52	1.11
GRP-008	51755-51764	69.00	77.80	8.80	0.98	2.10
GRP-008	51758	71.00	72.50	1.50	1.57	3.40
GRP-009	51793-51798	206.92	213.00	6.08	0.63	1.36
GRP-010	51673-51676	98.00	102.50	4.50	0.58	1.24
GRP-010	51681	105.50	107.00	1.50	0.58	1.25
GRP-010	51686	173.22	174.50	1.28	0.52	1.12
GRP-011	51706-51707	110.00	113.00	3.00	0.52	1.11
GRP-011	51725-51730	210.52	216.00	5.48	0.44	0.94
GRP-012	51738-51743	131.00	137.00	6.00	1.09	2.35
GRP-012	51743	135.50	137.00	1.50	1.87	4.01

GRP-012	51748-51749	141.50	143.90	2.40	0.51	1.09
GRP-013	51810-51815	125.00	131.00	6.00	0.94	0.94
GRP-013	51811	126.50	128.00	1.50	1.50	3.23
GRP-014	51823-51829	104.00	109.20	5.20	0.85	1.82
GRP-014	51836	192.28	193.52	1.24	1.03	2.20
GRP-014	51839-51841	197.30	198.90	1.60	1.61	3.47
GRP-014	51841	198.22	198.87	0.65	2.73	5.88
GRP-015	51853	143.21	144.73	1.52	0.92	1.98
GRP-015	51858	147.02	147.96	0.94	0.50	1.08
GRP-017	51882-51886	96.97	100.62	3.65	0.60	1.29
GRP-017	51898-51900	176.65	178.35	1.70	0.77	1.67
GRP-017	51912	207.81	208.86	1.05	0.54	1.16
GRP-018	51918-51920	118.50	120.39	1.89	0.45	0.96
GRP-018	51929-51932	210.30	213.20	2.90	0.94	2.03
GRP-018	51929	210.30	210.90	0.60	1.68	3.62
GRP-021	51952	72.62	74.00	1.38	0.51	1.09
GRP-021	51959-51961	84.21	86.46	2.25	1.26	2.71
GRP-021	51959	84.20	85.70	1.50	1.48	3.17
GRP-022	51983-51985	102.50	105.50	3.00	0.78	1.68
GRP-024	52013	25.90	27.10	1.20	0.81	1.74
GRP-024	52049-52051	223.68	226.53	2.85	0.58	1.24
GRP-025	52062	31.46	32.42	0.96	0.49	1.05
GRP-026	52085	34.00	35.00	1.00	0.46	0.98
GRP-027	52094	40.54	41.00	0.46	0.67	1.45
GRP-027	52100-52105	47.00	54.50	7.50	0.57	1.23
SGP-001	54503-54505	19.13	21.28	2.15	0.70	1.50

SGP-002	54520-54521	22.60	24.87	2.27	0.74	1.59
SGP-002	54527-54529	191.28	194.00	2.72	0.86	1.86
SGP-003	54553	65.40	66.80	1.40	0.53	1.14
SGP-003	54560	180.00	181.50	1.50	0.35	0.76
SGP-003	54562	181.50	183.00	1.50	0.52	1.12
SGP-005	54596	18.40	19.04	0.64	1.17	2.51
SGP-005	54616-54618	174.50	177.30	2.80	1.30	2.78
SGP-007	54669-54671	110.00	113.00	3.00	0.52	1.12
SGP-008A	54697	143.87	144.92	1.05	0.51	1.09
SGP-008A	54698	144.92	146.00	1.08	0.51	1.09
SGP-008A	54700	146.00	147.22	1.22	0.52	1.12
SGP-008A	54826	147.22	148.80	1.58	0.68	1.47
SGP-010	54690	185.72	187.02	1.30	0.69	1.49

Table A-4: GPS UTM coordinates from site visit compared to GPS coordinates recorded during drill line up

	Original Collars		QP Verification Collars		%Difference	
DH Collar	Easting	Northing	Easting	Northing		
CBP-007	452611.5	6077751	452612	6077745	0.000095	0.000096
CBP-008	452611.4	6077750	452612	6077745	0.000139	0.000089
GRP-008	452807.9	6077268	452805.9	6077263	0.000449	0.000079
GRP-009	452807.2	6077267	452805.9	6077263	0.000300	0.000067
GRP-013	452807.2	6077267	452805.9	6077263	0.000300	0.000067
GRP-024	452717.2	6077451	452715.6	6077448	0.000358	0.000052
GRP-025	452717.2	6077451	452715.6	6077448	0.000358	0.000052
SGP-005	452583.8	6077542	452582.7	6077540	0.000244	0.000026
SGP-006	452583.6	6077541	452582.7	6077540	0.000200	0.000020
SGP-007	452563.4	6077624	452563.7	6077621	0.000073	0.000056
SGP-008	452563	6077624	452563.7	6077621	0.000165	0.000048
SGP-009	452705.7	6077519	452705.7	6077517	0.000008	0.000026
SGP-010	452542.1	6077557	452539	6077556	0.000682	0.000022
SGP-011	452565.5	6077627	452565.3	6077625	0.000050	0.000040
TBL-001	454268.4	6078489	454225	6078469	0.009560	0.000341
TBL-002	454135.9	6078340	454138.2	6078341	0.000519	0.000010
TBL-003	454306.9	6078374	454306.9	6078376	0.000009	0.000025
TBL-004	454213.5	6078410	454213.9	6078412	0.000089	0.000030
TBL-007	454596.3	6078776	454595.6	6078769	0.000145	0.000117
TBL-016	454354.9	6078453	454376.9	6078556	0.004832	0.001694
TBL-017	454401.7	6078542	454402	6078542	0.000071	0.000003
TBL-018	454444.7	6078517	454444.4	6078517	0.000052	0.000011
TBL-021	454354.9	6078453	454356.2	6078451	0.000273	0.000034

TBL-022	454307	6078374	454306.9	6078376	0.000020	0.000025
TBL-025	454532.6	6078797	454534.2	6078804	0.000361	0.000120
TBL-026	454533.1	6078796	454534.2	6078804	0.000244	0.000127
TBL-027	454596.3	6078776	454595.6	6078769	0.000145	0.000117
TBL-028	454659	6078714	454658.5	6078713	0.000112	0.000027
TBL-029	454658.9	6078714	454658.5	6078713	0.000092	0.000025
TBL-034	454498.5	6078465	454497.1	6078462	0.000302	0.000053
TBL-035	454498.5	6078465	454497.1	6078462	0.000302	0.000053
TBL-054	454349.5	6078347	454349.4	6078349	0.000026	0.000026

Table A-5: Samples taken during the QP's site visit

Hole ID	From	To	Length	Sample #	Notes
TBL-038	191.96	193.50	1.54	44451	
TBL-038	193.50	195.00	1.50	44452	
TBL-038	195.00	196.50	1.50	44453	
TBL-038	196.50	198.00	1.50	44454	
TBL-038	S	S	0.00	44455	OREAS 149
TBL-038	198.00	199.50	1.50	44456	
TBL-038	199.50	201.00	1.50	44457	
TBL-038	201.00	202.50	1.50	44458	

TBL-038	B	B	0.00	44459	BLANK
TBL-038	202.50	204.00	1.50	44460	
TBL-038	204.00	205.50	1.50	44461	
TBL-038	205.50	207.00	1.50	44462	
TBL-038	207.00	208.50	1.50	44463	
TBL-038	207.00	208.50	1.50	44464	DUPLICATE
TBL-038	208.50	210.00	1.50	44465	
TBL-038	210.00	211.50	1.50	44466	
TBL-038	211.50	213.00	1.50	44467	
TBL-038	213.00	214.50	1.50	44468	
TBL-038	214.50	216.00	1.50	44469	
TBL-038	216.00	217.50	1.50	44470	
TBL-038	217.50	218.42	0.92	44471	
TBL-038	217.50	218.42	0.92	44472	DUPLICATE

TBL-038	218.42	219.80	1.38	44473	
CBP-005	1.35	2.00	0.65	44474	
CBP-005	2.00	3.00	1.00	44475	
CBP-005	3.00	4.50	1.50	44476	
CBP-005	4.50	6.00	1.50	44477	
CBP-005	B	B	0.00	44478	BLANK
CBP-005	6.00	7.50	1.50	44479	
CBP-005	7.50	9.00	1.50	44480	
CBP-005	9.00	10.50	1.50	44481	
CBP-005	10.50	12.00	1.50	44482	
CBP-005	10.50	12.00	1.50	44483	DUPLICATE
CBP-005	12.00	13.50	1.50	44484	
CBP-005	S	S	0.00	44485	OREAS 999
CBP-005	13.50	15.00	1.50	44486	

CBP-005	15.00	16.11	1.11	44487	
CBP-005	16.11	16.80	0.69	44488	
CBP-005	S	S	0.00	44489	OREAS 999
CBP-005	16.80	18.00	1.20	44490	
GRP-003	75.55	77.05	1.50	44491	
GRP-003	77.05	78.50	1.45	44492	
GRP-003	S	S	0.00	44493	OREAS 999
GRP-003	78.50	80.00	1.50	44494	
GRP-003	78.50	80.00	1.50	44495	DUPLICATE
GRP-003	80.00	81.50	1.50	44496	
GRP-003	81.50	82.63	1.13	44497	
GRP-003	82.63	83.37	0.74	44498	
GRP-003	83.37	84.87	1.50	44499	
GRP-003	83.37	84.87	1.50	44500	DUPLICATE

GRP-003	107.00	107.89	0.89	44501	
GRP-003	107.89	108.90	1.01	44502	
GRP-003	108.90	109.50	0.60	44503	
GRP-003	109.50	110.81	1.31	44504	INTERVAL OF WALL RK FOLLOWS
GRP-003	113.00	114.52	1.52	44505	
GRP-003	114.52	116.00	1.48	44506	
GRP-003	116.00	116.71	0.71	44507	
GRP-003	116.00	116.71	0.71	44508	DUPLICATE
GRP-003	116.71	117.72	1.01	44509	
GRP-003	117.72	119.00	1.28	44510	
GRP-003	119.00	119.66	0.66	44511	
GRP-003	119.66	120.24	0.58	44512	
GRP-003	120.24	121.50	1.26	44513	
GRP-003	S	S	0.00	44514	OREAS 999