TECHNICAL REPORT SUMMARY

MT. HOLLAND LITHIUM PROJECT

Sociedad Química y Minera de Chile

Date: April 25, 2022

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1 EXECUTIVE SUMMARY

1.1 Property Summary and Ownership

The Mount Holland Lithium Project, hereafter the Project, is an integrated lithium project in Western Australia consisting of (i) an open pit mine and lithium concentrator operation (MCO), at Mount Holland, 120 km southeast of the settlement of Southern Cross, and (ii) a lithium hydroxide (LiOH) refinery located in the Town of Kwinana, 26.5 km from the port of Fremantle, from where the LiOH will be shipped.

The Project is conducted through an unincorporated joint venture (Joint Venture) between MH Gold Pty Ltd (a wholly owned subsidiary of Wesfarmers Limited (Wesfarmers)) and SQM Australia Pty Ltd (SQM Australia) (a wholly owned subsidiary of Sociedad Química y Minera de Chile (SQM)). Each joint venturer has a 50% interest in the Project. The Project is managed by Covalent Lithium Pty Ltd (Covalent), an entity that is jointly owned by the joint venturers, as agent for and on behalf of the Joint Venture.

1.2 Geology and Mineralization

The Mt. Holland project is focused on the exploitation of the resource in the Earl Grey pegmatite group. The Earl Grey pegmatite group consists of a main tabular pegmatite body flanked by numerous narrower hanging wall and footwall apophyses. The pegmatite has a strike length of at least 1 km, and a dip extent of over 2 kilometers and a thickness of up to 100 meters. The pegmatites become progressively narrower and more branched to the south and the east of the main pegmatite until even the main body divides into several narrower dikes. Narrow blocks of enclosed wall rock rafts are present within some areas of the pegmatites.

The pegmatites intrude with an approximate strike of 210° to 220° and dip of 5° to 15° to the northwest. At their western margin, the pegmatites appear to be affected by gentle folding. The dip of the pegmatites is variable, with the pegmatite steepening from sub-horizontal in the south to 10° to 15° to the northwest north of the Earl Grey gold pit.

The Earl Grey pegmatite group consists of a simple albite-quartz-microcline-spodumene petalite dominated assemblage with minor biotite, muscovite, and tourmaline. The lithium aluminosilicates spodumene and petalite are by far the most abundant lithium-bearing minerals in the Earl Grey pegmatite; however, a wide array of trace lithium phases has also been documented in distinct domains. These are mostly late-stage alteration related phases, and except for cookeite, are a rare occurrence. Textures range from extremely coarse pegmatite through to finer grained seriate granitic to aplitic and late-stage replacement textures. The Earl Grey pegmatite group does not display the strong concentric mineralogical zonation commonly associated with complex rare element pegmatites. The spodumene, petalite, and alteration assemblages are restricted to distinct zones within the pegmatite and are strongly correlated with individual fault blocks and their bounding structures.

Extensive exploration supports the characterization of the Earl Grey Pegmatite, as the resource and reserve estimation, and it is comprised of surface mapping and extensive subsurface drilling carried out on the property in consideration that the pegmatite is not outcropping in the area.

Exploration has predominantly been carried out by Kidman Resources since 2016, for the discovery and resource definition. Since 2020, Covalent has conducted additional diamond drilling for metallurgical sampling, grade control drilling campaigns and improvement definition of the Orebody geometry in the proposed starter pit area

1.3 Status of exploration, development, and operations

The project is classified under development or construction according to the S-K 1300 regulations. Basic exploration and the resource definition is completed since 2018, but Grade Control Drilling campaigns have been done since 2020. The mine, concentrator and refinery are currently under construction with most construction contracts awarded and ongoing. Primero group has been awarded with the engineering, procurement, and construction (EPC) of the concentrator while Civmec Limited, through a wholly owned subsidiary, has been awarded with the major construction contract of the Refinery. In addition, a four-year mining services contract was awarded to the Thiess Pty Ltd.

1.4 Mineral Resource Statement

Mineral resource for the Project, representing in-situ lithium bearing pegmatites are reported below in accordance with SEC Regulation S-K 1300 standards and are therefore suitable for public release. The current Mineral Resource for the Earl Grey Deposit, contained within the pit shell has been reported at a cut-off of 0.5 Li_2O% and is detailed in Table 1-1 for mineral inclusive of the reserve and Table 1-2 for mineral exclusive of the reserve.

Table 1-1. October 2021 Mineral Resource Estimate Inclusive of Mineral Reserves for the Earl Grey Deposit

Classification	Cut-off Grade (%Li_2O)	Kilotonnes (kt)	SQM Attributable tonnes	Li_2O%	Fe_2O_3%	Ta ppm
Measured	0.5	71,000	35,500	1.57	1.17	56
Indicated	0.5	107,000	53,500	1.51	1.02	45
Measured + Indicated	**0.5**	**178,000**	**89,000**	**1.54**	**1.08**	**50**
Inferred	0.5	8,000	4,000	1.44	1.30	47
Total	**0.5**	**186,000**	**93,000**	**1.53**	**1.09**	**49**

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral resources are **reported inclusive of mineral reserves**. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- Resources have been reported as in situ (hard rock within optimized pit shell).
- Resources have been categorized subject to the opinion of a Qualified Person ("QP") based on the amount/robustness of informing data for the estimate and consistency of geological/grade distribution.

- Resources which are contained within the mineral Resource Pit design may be excluded from reserves due to an Inferred classification. They are disclosed separately from the resources contained within the Resource Pit.
- There is reasonable expectation that some Inferred resources within the mineral reserve pit design may be converted to higher confidence materials with additional drilling and exploration effort.
- Mineral resources are reported considering a nominal set of assumptions for reporting purposes:
- Pit optimization and economics for derivation of cut-off grade ("CoG") include mine gate pricing of US$800/t of 6% Li_2O concentrate, AU$19/bcm mining cost (Life of Mine ("LoM") average cost-variable by depth), AU$65/t processing cost. Mining dilution set at 5% and recovery at 95%. Royalty fees 5%. The recovery considered for the concentrator is 75%.
- Costs estimated in Australian Dollars were converted to US Dollars based on an exchange rate of 0.75US$:1.00AU$.
- These economics define a cut-off grade of 0.50% Li_2O.
- The slope angles vary from 40 degrees for oxide material to 45 degrees for fresh material.
- Resources were reported above this 0.5% Li_2O cut-off grade and are constrained by an optimized break-even pit shell.
- No infrastructure movement capital costs have been added to the optimization.
- Mineral resources tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Kerry Griffin is the QP responsible for the mineral resource estimate with an effective date: October 6, 2021.

Table 1-2. October 2021 Mineral Resource Estimate Exclusive of Mineral Reserves for the Earl Grey Deposit

Classification	Cut-off Grade (%Li_2O)	Kilotonnes (kt)	SQM Attributable tonnes	Li_2O%	Fe_2O_3%	Ta ppm
Measured	0.5	27,000	13,500	1.58	1.05	55
Indicated	0.5	61,000	30,500	1.45	1.04	43
Measured + Indicated	0.5	88,000	44,000	1.49	1.04	47
Inferred	0.5	7,000	3,500	1.38	1.35	47
Total	0.5	95,000	47,500	1.48	1.06	47

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral resources are **reported is exclusive of mineral reserves**. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- Resources have been reported as in situ (hard rock within optimized pit shell).
- Resources have been categorized subject to the opinion of a QP based on the amount/robustness of informing data for the estimate and consistency of geological/grade distribution.
- Resources which are contained within the mineral resource pit design may be excluded from reserves due to an Inferred classification. They are disclosed separately from the resources contained within the Resource Pit.

- There is reasonable expectation that some Inferred resources within the mineral reserve pit design may be converted to higher confidence materials with additional drilling and exploration effort.
- Mineral resources are reported considering a nominal set of assumptions for reporting purposes:
- Pit optimization and economics for derivation of CoG include mine gate pricing of US$800/t of 6% Li_2O concentrate, AU$19/bcm mining cost (LoM average cost-variable by depth), US$65/t processing cost. Mining dilution set at 5% and recovery at 95%. Royalty fees 5%. The optimisation considered for the concentrator is 75%. Costs estimated in Australian Dollars (AU$) were converted to US Dollars (US$) based on an exchange rate of 0.75US$:1.00AU$.
- These economics define a cut-off grade of 0.50% Li_2O.
- The slope angles vary from 40 degrees for oxide material to 45 degrees for fresh material.
- Resources were reported above this 0.5% Li_2O cut-off grade and are constrained by an optimized break-even pit shell.
- No infrastructure movement capital costs have been added to the optimization.
- Mineral resources tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Kerry Griffin is the QP responsible for the mineral resource estimate with an effective date: October 6, 2021.

1.5 Mineral Reserve Statement

Mineral reserve for the Project, representing in-situ lithium bearing pegmatites are reported in Table 1-3 accordance with SEC Regulation S-K 1300 standards and are therefore suitable for public release. The reserves are reported above a cut-off grade of 0.5% Li_2O based on an assumed Lithium Hydroxide Selling price at of US$11,000 per tonne FOB. Such price assumption was used for the purpose of evaluating the robustness and economic viability of the Project and does not represent a view of, and may differ from those used by, any of the joint venturers for their own valuation or commercial strategies in relation to the Project. No by-product extraction is considered in the reserve estimation.

Table 1-3 Ore Reserve category

Ore Reserve Category	Quantity (Mt)	SQM Attributable (Mt)	Li_2O (%)	Fe_2O_3 (%)
Proven	21.5	10.8	1.48	1.36
Probable	62.4	31.2	1.60	1.19
Total	83.9	42.0	1.57	1.24

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral reserves are reported exclusive of mineral resources.
- Indicated in situ resources have been converted to Probable reserves.
- Measured resources have been converted to Probable mineral reserves. Measured resources outside the Updated Integrated Definitive Feasibility Study (UIDFS) 10-year boundary will be considered as "Probable" in line with the 2018 Ore Reserves
- Mineral reserves are reported considering a nominal set of assumptions for reporting purposes:
- Mining Dilution has been calculated through the utilization of a regularized model, with 5m x 5m x 2.5m block sizes. Additionally, mining recovery of 98% of the diluted Spodumene Quartz Intergrowth mineralization has been used.

- Metallurgical processes are designed for nominal 2Mtpa ore feed. Process recovery to concentrate is estimated at 75% for Li_2O for predominantly Spodumene Mineralisation and 0% for other mineralization types. Refinery process recovery is estimated at 85%. Tantalum recovery is estimated at 0%. A total operating cost of US$4,979 for LiOH production was considered for the reserve evaluation.
- Costs estimated in Australian Dollars were converted to US Dollars based on an exchange rate of 0.75US$:1.00AU$.
- The price, cost, and mass yield parameters, along with the internal constraints of the current operations, result in a mineral reserves CoG of 0.5% Li_2O based on an assumed selling Lithium Hydroxide price of US$11,000/t FOB.
- Waste tonnage within the reserve pit is 427.1 Mt.
- Mineral reserve tonnage and grade have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding
- David Billington is responsible for the mineral reserves with an effective date: December 15, 2021.

1.6 Metallurgy and Mineral Processing

Testwork campaigns to support the concentrator flowsheet and engineering design were completed at accredited laboratories under the supervision of Covalent. Testwork execution follows best practice guidelines, including review of current practices, tracking of information and verification of test methodologies. The results disclosed in this report are based on the UIDFS elaborated by Covalent in 2020.

Samples for the concentrator metallurgical testwork were sourced via drilling campaigns using both reverse circulation (RC) and diamond drill holes. Most of the metallurgical samples collected were in the area of the proposed starting pit for the mine. Bulk composites were generated by combining the drill core ore samples identified for each pilot run. All composites were prepared by combining downhole samples, providing an average ore grade for testing. The existing metallurgical samples does not capture the complete orebody, but from geologic data and drillhole reviews the pegmatite mineralogy across the deposit is similar. In the QP's opinion, the metallurgical samples are representative of the first 10 years of mining and, based on the mineralogical data and geological descriptions, the metallurgical test results are indicative of the expected recoveries for the remaining Spodumene and Quartz Intergrowth (SQI) pegmatite identified in the deposit. The concentrator design, and the ability to blend ore from the ROM pad and the low-grade ore stockpile, is expected to allow minimization of fluctuation in feed grade, and the associated variation in lithium mass flow through the process circuit. The following conclusions can be drawn from the concentrator testworks: testwork has confirmed that the target product quality for spodumene concentrate of 5.5 per cent Li_2O can be achieved: pilot run recoveries exceeded the nominal 75 per cent target recovery with an average Li_2O recovery of 77.6 per cent reported.

The refinery testwork program has been developed to deliver a robust refinery process flowsheet based on testworks, to ensure the process design produce LiOH product that meets the quality specification consistently, based on the outputs from concentrator testworks. From the refinery testworks results, the lithium deportment analysis predicts an overall refinery recovery of 85.9

per cent, with the potential range between 82.0 and 91.5 per cent. For the valuation a recovery of 85.0 per cent has been selected.

1.7 Mine Design, Optimization and Scheduling

Mining of the Earl Grey Deposit at Mount Holland will utilize conventional open pit mining methods in consideration of the pegmatite body geometry and economic factors. The mine plan gives a Life of Mine of approximately 50 years at a production rate of around 2 Mt/year of ore, with a total material movement 511 Mt (including waste material). The operation will be serviced by contractor-owned and operated drill & blast, as well as load & haul equipment. Mining equipment will include excavators, haul trucks, drilling rigs and ancillary equipment including dozers, water trucks, service trucks and graders. Material movement initiated in February 2022 by removal and stockpiling of topsoil, followed by pre-stripping of waste to provide access to the first ore.

The deposit geometry presents relatively large bulk areas of both ore and waste; however, the ore/waste contact is designed to be mined as cleanly as possible to prevent ore loss and dilution of the ore with the high Fe_2O_3 waste. It is anticipated that precision drill and blast techniques will be employed on these ore/waste contacts, with dozers cutting to visual ore/waste contacts. Based on ore grade, excavated material will be hauled from the pit to specific locations, as follows:

- Ore which meets or surpasses the Li_2O cutoff grade (high-grade ore) will be hauled to the ROM pad.
- Ore below the Li_2O grade blending specifications, will be moved to the low-grade ore stockpile.
- Mixed material, derived from the ore/waste contact zone will be stored at the sorting stockpile for processing at the end of the operational life of the mining operation.
- Storage of high-grade ore on the ROM pad and low-grade ore on the low-grade ore stockpile will permit its inspection and testing, as appropriate, prior to its introduction into the concentrator feed line, where high- and low-grade ores will blend to achieve the ore grade required by the concentrator at any given time.
- Waste rock will be disposed of at the various waste rock landforms (WRLs, waste rock dumps) considered in the mine plan.
- Other material, such as lithium-bearing petalite, other mixed lithium minerals and gold-bearing material will be separated and stockpiled separately.

The mining proposal, submitted to the regulator for approval, outlines the land management schedule for the first 10 years of operation. Further approvals are required to mine beyond the 10 years to the full LoM of the Ore Reserves. It is anticipated that all impacts of the LoM project beyond the first 10 years can be readily managed and offset as required.

1.8 Permitting Requirements

In terms of environmental studies, permits, plans, and relations with local groups, the Project submitted an Environmental Impact Assessment (EIA) complying with the established contents and criteria, and the legal requirements of current environmental regulations in Western Australia. The approvals for the Project have been received and the construction of the facilities are under way. The QP recognizes that further environmental approvals are required to mine beyond the 10 years to the full LoM of the Ore Reserves. It is anticipated that all impacts over the LoM of the Project, beyond the first 10 years, can be readily managed and offset as required.

In addition, the project committed to some ongoing monitoring measures (including groundwater sampling, soil analysis and vegetation health monitoring) to detect any effects on the environment them as a result of the project implementation. This will allow the project owner to implement controls and mitigations measures in the unlikely event that project related impacts were identified.

1.9 Capital Costs, Operating Costs and Financial Analysis

The Project is comprised of two main sites: the mine and concentrator plant at the Mt. Holland mine site and the refinery in the Kwinana strategic industrial area. The total capital cost for the Project has been estimated at US$1,226 million in real terms. The portion attributable to SQM is 50% of the total capital cost. A summary of the total capital cost is provided in the Table 18-1 below.

Table 1-4 Capital cost by category

Capital cost category	Amount (US$ million)
Mine, concentrator and supporting infrastructure	37%
Refinery and non-processing infrastructure	45%
Corporate	5%
Contingency	13%
Total capital cost (including contingency)	1,226 (100%)
Escalation estimate (based on approx. 2.3 per cent per annum growth between the periods)	39
Total capital cost (including contingency and escalation)	1,265

The capital cost above is an updated estimate from the proposed amount presented to the joint venturers when making the investment decision in February 2021. The update from the amount presented to the joint venturers includes the mine plan that resulted from the reserves update performed during 2021 with the assumed exchange rate of 0.70US$:1.00AU$. At the time of the investment decision, the joint venturers were presented a risk-adjusted P50 estimate that, due to high uncertainty, excluded a risk allowance for impacts from COVID-19. SQM approved an investment of approximately US$700 million to cover its share of the Project. The capital cost estimate for the Project was compiled from various sources – each best placed to estimate the cost for a portion of the overall estimate.

A detailed, probabilistic Quantitative Risk Assessment (QRA) of the Project capital cost estimate was completed prior to finalization of the UIDFS (2020). The QRA process included workshops with multidisciplinary teams to assess risk factors applicable to various components of the capital cost estimate and define appropriate uncertainty ranges for each component based on its risk profile.

Project operating costs are shown on a LoM basis as from commencement of stable operation. Operating cost estimates are from inputs provided by Covalent, consultants, vendors, formal/informal tender processes, and other market information. Costs are categorized as follows: Mine and Concentrator, Refinery Corporate Royalty, and Depreciation

The total operating cost is estimated at US$4,989/t of LiOH. The distribution of operating cost is shown in Table 1-5 and summarises the make-up of the total cost per tonne of LiOH for the Project. The methodology to calculate the total cost per tonne considers the average production operating costs over LoM.

Table 1-5 Distribution of operating costs

Total LoM unit cost	share %
Mine and Concentrator	50%
Refinery	39%
Corporate	7%
Royalties	4%
Total	100%

The operating cost reported is an updated estimate from the proposed estimation prepared by Covalent in the UIDFS (2020). The sole update was the mine plan that resulted from the reserves update performed during 2021. The operating cost estimate for the Project was compiled from various sources – each best placed to estimate the cost for a portion of the overall estimate. For the purpose of the estimate, the exchange rate assumption from UIDFS was maintained at 0.70US$:1.00AU$.

Most key assumptions are maintained from those used in the UIDFS (2020), including valuation date, discount rate, and reagents prices. Such assumptions were used for the purpose of evaluating the robustness and economic viability of the Project and do not represent a view of, and may differ from those used by, any of the joint venturers for their own valuation of the Project. The financial model assumes the valuation of the Project independently and does not take into consideration tax deductions from accumulated losses, if any, within SQM. Valuation is in real terms. The key assumptions used in the financial model are outlined in Table 1-6.

Table 1-6 Key valuation assumptions

Key Valuation Assumptions		
Item	Unit	Value
Valuation date	Date	1 January 2021
Discount rate (real)	%	10
Tax rate	%	30.00
Foreign exchange US$:AU$	(:1)	0.70
Project Life	Years	51
Mine life	Years	50

The mine plan produces 83.7 million tonnes of ore as feed to the concentrator over LoM at varying grades. Spodumene concentrate is produced with an estimated average recovery of 77.2 per cent over the LoM to produce lithium oxide concentrate at a grade of 5.5 per cent. The concentrate is supplied to the refinery to produce a total of 2.37 million tonnes of LiOH (average of 50.3 ktpa) for the Project.

The primary revenue source for the Project is LiOH, a small revenue contribution is generated from the sale of the co-products, SSA and DBS. In addition, during ramp-up of the Refinery the model assumes revenue is generated from the sale of excess spodumene concentrate.

The financial model conservatively assumed a LiOH price of US$11,000 per tonne of LiOH on a CIF basis and a spodumene concentrate price of US$550 per tonne of concentrate at 6% grade on a FOB basis. The above prices are a conservative assumption used for the purpose of the valuation and do not represent a view or consensus of forward-looking prices by any of the joint venturers.

Based on the assumptions mentioned above, Table 1-7shows the main financial outcomes for the Project. SQM's attributable portion of the net present value under such assumptions is US$288 million.

Table 1-7 Key financial outcomes

Key Project Metrics - LoM	**Units**	**Mine Plan Optimization**
NPV	US$ million	576
IRR	%	14.9
Payback	year	2029

A sensitivity analysis was applied over different variables affecting the financial outcome of the Project, with the objective to provide visibility of the assumptions that present the key risks to the value of the Project. The analysis also identifies the skew of the impact of each assumption in terms of upside and downside to value. The following variables were analyzed: LiOH price, CAPEX, OPEX, concentrator recovery, and ore feed grade. The results of this sensitivity analysis shows that the most relevant variable is the LiOH price.

1.10 Conclusions and Recommendations

1.10.1 Results

1.10.1.1 Geology and Resources

Sufficient data have been obtained through various exploration and grade control drilling programs in the main property. Exploration techniques and the quality assurance and quality control (QAQC) procedures employed on the project are appropriate and sufficient to support the mineral resources according to the S-K 1300 regulations. Geology and mineralization are well understood across the deposit and are sufficient to support a resource estimation and a feasibility study. In the QP's opinion, the mineral resources stated in this report are appropriated for public disclosure and meet the definitions established in the SEC guidelines and industry standards.

1.10.1.2 Reserve and Mining Methods

The Ore Reserves Estimate is in line with previous Ore Reserves for the project (2018). The mine plan gives a Life of Mine of approximately 50 years at a production rate of around 2 Mt/year of ore, with a total material movement 511 Mt (including waste material). The Qualified Person recognized that further approvals are required to mine beyond the 10 years to the full Life of Mine of the Ore Reserves. It is anticipated that all impacts of the Life of Mine project beyond the first 10 years can be readily managed and offset as required.

In the QP's opinion, the mineral reserve stated in this report are appropriated for public disclosure and meet the definitions established in the SEC guidelines and industry standards.

1.10.1.3 Mineral processing and Metallurgy

The metallurgical tests carried out support the forecast yield for the concentrator and the refinery. The physical, chemical, and metallurgical tests carried out to date by Covalent have been adequate to establish a suitable process to produce spodumene concentrate and lithium hydroxide. In the QP's opinion, the metallurgical testing and process designed by Covalent are adequate to establish the modifying factors needed for a reserve definition.

1.10.1.4 Environmental, Social and Governance

In terms of environmental studies, permits, plans, and relations with local groups, the Mt. Holland Project submitted an Environmental Impact Assessment (EIA) complying with the established contents and criteria, and the legal requirements of current environmental regulations in Western Australia. The approvals for the project are on track and at the moment of elaboration of this report are not considered to represent a significant risk for the project.

In addition, the project committed to some monitoring measures to follow-up on the different components and detect any effects on them as a result of project implementation. This will allow to execute measures if necessary.

1.10.2 Significant Risks

- Resource: While the resource has been extensively drilled and tested and the nature of the mineralization is consistent and apparently well understood, there is a risk that the contained metal in the resource has been misestimated, that the metallurgical performance is not fully representative of the whole rock mass and the reported values cannot be extracted.
- Product sales prices: the price of Lithium Hydroxide is a forecast based on predicted supply and demand changes for the lithium market overall. There is considerable uncertainty about how future supply and demand will change, which will materially impact future Lithium Hydroxide prices. The reserve estimate may be sensitive to significant changes in revenue associated with changes in Lithium Hydroxide prices.
- Mining dilution and mining recoveries: The level of ore loss and dilution applied to the production schedule assumes a very selective mining method on the ore/waste contact. If the planned level of selectivity cannot be achieved there will be either higher ore loss and/or an increase in the Fe_2O_3 concentration due to dilution. This would potentially introduce more waste into the plant feed, which would decrease the feed grade, slow down the throughput and reduce the metallurgical recovery.
- Impact of currency exchange rates on production cost: costs are modeled in Australian Dollars (AU$) and converted to US Dollars (US$) within the cash flow model.
- Operations Risks: There are many potential operational risks ranging from the inability to hire, train and retain workers and professional necessary to conduct operations, to poor management. The lithium industry is in expansion, and this could lead to a personnel shortage. While similar operations are conducted in Western Australia, there is no reason to believe these risk factors cannot be eliminated.
- The impact of exceptional weather events or climate change that could negatively impact operations.
- The impact of exceptional pandemics events like COVID-19.
- The impact of possible war scenarios that could affect the market.
- Processing plant and refinery yields: The forecast assumes that the concentrator and refinery will be fully operational and that the estimated yield assumptions are achieved. If one or more of the plants does not operate in the future, or if any of the targeted yields are not achieved, the mineral reserves and estimated economic outcome would be adversely impacted.

1.10.3 Conclusions

The Project, currently in construction, has been evaluated in a feasibility study, UIDFS (2020), and its mineral resources and reserves updated with further studies carried out during 2021. Those studies confirm that there are no material changes from the 2020 evaluation. The evaluated project corresponds to an open pit mine, a concentrator plant to produce Spodumene Concentrate, and a refinery to produce lithium hydroxide.

The Qualified Persons consider that the exploration data accumulated available is reliable and adequate for the purpose of the declared mineral resource and reserve estimates at a feasibility study level. The report was prepared in accordance with the resource and reserve classification pursuant to the SEC's new mining rules under subpart 1300 and Item 601(96)(B)(iii) of Regulation S-K (the "New Mining Rules").

2 INTRODUCTION

This Technical Report Summary (TRS) was prepared for Sociedad Química y Minera de Chile S.A. (SQM) to provide investors a comprehensive understanding of the Mt. Holland Lithium Project (the Project) in accordance with the requirements of Regulation S-K, Subpart 1300 of the Securities Exchange Commission of the United States (SEC), hereafter referred to as regulation S-K 1300. The Project is an integrated lithium project in Western Australia consisting of (i) an open pit mine and lithium concentrator operation (MCO), at Mount Holland, 120 km southeast of the settlement of Southern Cross, and (ii) a lithium hydroxide (LiOH) refinery located in the industrial area within the Town of Kwinana, 26.5 km from the port of Fremantle, from where the LiOH will be shipped. The Project focus is to produce battery-grade lithium hydroxide meeting increased demand from the electric vehicle market.

The Project is conducted through an unincorporated joint venture (Joint Venture) between MH Gold Pty Ltd (a wholly owned subsidiary of Wesfarmers Limited (Wesfarmers)) and SQM Australia Pty Ltd (SQM Australia) (a wholly owned subsidiary of Sociedad Química y Minera de Chile (SQM)) Each joint venturer has a 50% interest in the Project. The Project is managed by Covalent Lithium Pty Ltd (Covalent), an entity that is jointly owned by the joint venturers, as agent for and on behalf of the Joint Venture.

2.1 Terms of Reference and Purpose of the Report

This TRS was prepared with the purpose to disclose resource and reserves for the Project located in Australia, in accordance with the requirements of Regulation S-K, Subpart 1300 of the SEC.

2.2 Source of Data and Information

This TRS is based on information prepared by Covalent and consultants for the purpose of the Project. The mineral resources and reserves studies were studies at feasibility study level according to JORC (2012) guidelines. All the information is cited throughout this document and listed in Section 24 “References” at the end of this Report.

2.3 Qualified Persons and details of Inspection

The details of Qualified Persons (QP) and the personal inspections on the property are listed in Table 2-1.

- Mr. Andrés Fock is a Geologist and MSC in Geology, with 17 years of experience in project evaluation, resource estimation, exploration and geostatistics, for different commodities (Li, K, I, NO_3, Cu, REE). Since 2019, he is a Qualified Person registered with No. 0388 in the Public Registry of Qualified Persons in Mining Resources and Reserves, following Law N°20.235 that regulates the role of Qualified Persons and creates the Qualifying Commission of Competences in Mining Resources and Reserves ("Law for Qualified Persons") and its current regulation in Chile. As a geologist, he has evaluated multiple lithium brine and lithium bearing pegmatite projects. He is a Qualified Person as defined by S-K 1300 regulations. Mr. Fock acted as project manager during preparation of this report. Mr. Fock is an employee of SQM.

Table 2-1 Qualified Persons, Site Visits and Responsibilities

Qualified Person	Date of Visit	Detail of Visit	Responsible of
Andrés Fock	Multiple visits since 2017. Last visit conducted between 12th to 13th January 2022.	In site visit was reviewed the drilling, sampling, and logging practices employed by Kidman Resources and to view the geology as evident in the drill core. In the last visit inspections were conducted of the concentrator construction plant site, the proposed pit, Run of Mine ore stockpile, waste landform areas, camp construction and water pipeline construction site.	Chapters 2, 3, 4, 5, 6, 7, 8, 9, 15, 17, 20, 21, 22, 23, 24 & 25.
David Billington	Multiple visits since 2016. Last visit was conducted between 6th to 8th December 2021	Previous visits were done to review the drilling, sampling, and logging practices employed by Kidman Resources and to view the geology as evident in the drill core. In the last visit inspections were conducted of the concentrator construction plant site, the proposed pit, Run of Mine ore stockpile, waste landform areas, camp construction and water pipeline construction site.	Chapters 10, 12, 13, 14, 18 & 19
Kerry Griffin	No inspection	Due to the current COVID-19 pandemic and associated travel restrictions a site visit has not been possible. Lisa Bascombe and David Billington, both employees of Mining Plus at the time, conducted a site visit to the Earl Grey Project on the 9th and 10th of November 2016. No mining has taken place since.	Chapter 11, Resource Estimation.

Source: Own Elaboration.

- Mr. David Billington is a mining engineer with a BE in Mining, he has over 35 years of experience in mine planning, mine operations and management and project evaluation and consulting, for different commodities (Li, Ta, Sn, Fe2O3, Au, Cu, REE). As a mining engineer, he has worked at pegmatite projects producing Lithium for 10 years and evaluated multiple lithium pegmatite projects. He is a member of the Australasian Institute of Mining and Metallurgy (AUSIMM), 109676. He meets the experience criteria as competent person for Ore Reserves is style of mineralization as set out by the AUSIMM's Joint Ore Reserve Committee (JORC). He is a Qualified Person as defined by S-K 1300 regulations. Mr. Billington is an employee of Covalent a Joint Venture between SQM and Wesfarmers Ltd.
- Mr. Kerry Griffin is a qualified Geologist and has over 27 years of extensive hands-on experience in mine geology, mine development and management, designing and managing large scale exploration and resource drilling programs, resource modelling and estimation, the management and training of geological/technical teams in Australia, Africa, South/Central America, Central and Southeast Asia including more than 22 years in senior or management positions. His experience in lithium pegmatites includes exploration, resource development and mining in Australia, Southern Africa, and South America and as such, Mr. Griffin meets the experience criteria as a competent person for Ore Resources in this style of mineralization as set out by the AUSIMM's Joint Ore Reserve

Committee (JORC). He is a Qualified Person as defined by S-K 1300 regulations. He is a current member of the Australian Institute of Geoscientists (3521) and the Society of Economic Geology. Kerry is currently employed by Mining Plus Ltd.

2.4 Previous Reports on Project

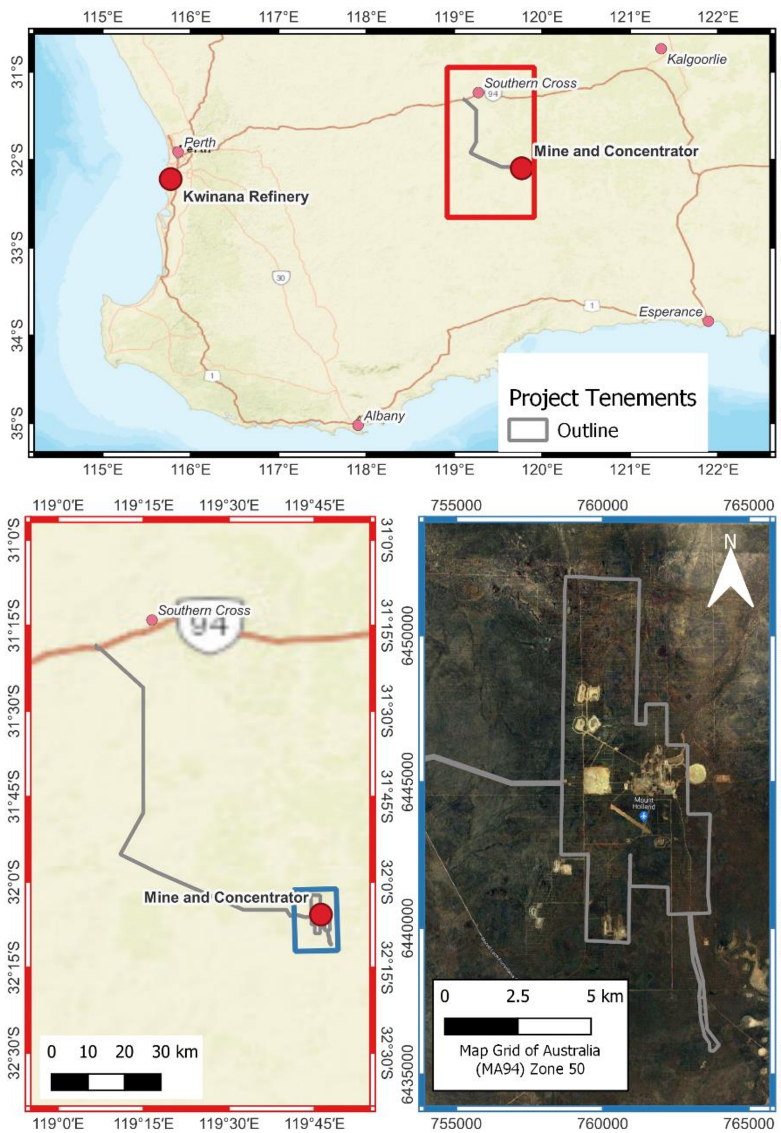
This TRS is not an update of a previously filed TRS. Previous works were reported by Kidman Resources under JORC Code 2012.

3 PROPERTY DESCRIPTION AND LOCATION

3.1 Location

The Project is an integrated lithium project in Western Australia consisting of (i) an open pit mine and lithium concentrator operation (MCO), at Mount Holland, 120 km SSE of the settlement of Southern Cross, and (ii) a lithium hydroxide (LiOH) refinery located in the industrial area in the Town of Kwinana, 26.5 km from the port of Fremantle, from where the LiOH will be shipped (Figure 3-1). The coordinates for the mine and concentrator are 32° 06'07" South Latitude and 119°46'06" East Longitude. The coordinates for the refinery are 32°13'06" South Latitude and 115°46'25" East Latitude.

Figure 3-1. Map showing location of Mt. Holland site and refinery in Kwinana



3.2 Area of the Property

The Project Tenements (as defined below) are shown in Figure 3-1. The tenements include Exploration Licenses, Mining Leases, General Purpose Leases and Miscellaneous Licenses, covering an approximate area of 4,606 hectares[1] and the development envelop where the pit, concentrator and facilities covers an area of 1,984 hectares. The Project has required the Joint Venture to enter into access agreements with underlying or overlapping tenement holders for some of the tenements. Those agreements have been completed.

In addition to the tenements in or near Mt. Holland, the Project has entered a long-term lease for 40 hectares in an industrial site in the Kwinana Industrial area.

3.3 Mineral Titles, Claims, Rights, Leases and Options

The project development envelope for the MCO is spread across three core mining leases (M77/1065, M77/1066 & M77/1080), as well as exploration licenses, general purpose leases and miscellaneous licenses (Project Tenements).

Table 3-1. List of Project Tenements below lists all of the relevant mining titles for the Project as at the date of this document, including details of their tenure (Project Tenements). The Project Tenements are either 100% beneficially owned by the joint venturers (50% SQM and 50% Wesfarmers through their wholly owned subsidiaries), or the joint venturers have a right to access them for the purpose of the Project (see Table 3-1. List of Project Tenements below for further details). A summary map showing the main tenements, as at the date of this report, is set out in Figure 3-1.

The Project Tenements are registered with mining registrars located in the State of Western Australia. They have been surveyed and constituted under the *Mining Act 1978* (WA) (Mining Act). The Mining Act imposes certain conditions on the grant of mining tenements including the requirement to meet specific reporting and expenditure commitments. Covalent, on behalf of the joint venturers, continues to review and renew the Project Tenements and ensures compliance with these conditions, including relevant regulatory requirements and fees for maintenance of these tenements.

SQM Australia acquired 50% interest over the main project tenements from Kidman Resources Limited (KDR) and its subsidiaries by way of a sale agreement, where SQM agreed to pay:

- $US30 million to KDR in exchange for a 50% interest in the main project tenements; and
- $US80 million to fund initial costs of development for the Project between KDR and SQM.

The direct payment to KDR and the contribution to the Project were split into an initial payment and a deferred payment, which were subject to certain preceding conditions. All payments were completed in December 2018. The parties also agreed to establish a joint venture to mine and

[1] The area calculated here is the total area coverage of different superimposed tenements.

process spodumene ore into spodumene concentrate or lithium hydroxide. The Joint Venture was established by the unincorporated joint venture agreement dated 21 December 2017 between SQM Australia (a wholly owned subsidiary of SQM) and MH Gold Pty Ltd (a then wholly owned subsidiary of KDR).

Table 3-1. List of Project Tenements

Tenement*	Start Date	End Date	Holder 1	Holder 2	Status	Legal Area	Calculated Area (Ha)
M 77/1080[1]	19/05/2004	12/12/2025	Montague Resources Australia PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	897.9 Ha	897.9
M 77/1065[3]	12/02/2004	12/12/2025	Montague Resources Australia PTY LTD (100%)		Live	958.6 Ha	958.6
M 77/1066[1]	12/02/2004	12/12/2025	Montague Resources Australia PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	999.6 Ha	999.6
E 77/1400[1]	23/01/2007	26/05/2022	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	3 BL.	561.6
E 77/2099[1]	20/12/2012	1/05/2024	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	6 BL.	707.2
E 77/2167[3]	8/11/2013	17/06/2024	MH Gold PTY LTD (100%)		Live	12 BL.	3019.2
G 77/129[1]	24/05/2017	3/10/2038	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	182.6 Ha	182.6
G 77/130[1]	24/05/2017	3/10/2038	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	27.8 Ha	27.8
G 77/132[3]	29/06/2018	28/01/2040	Montague Resources Australia PTY LTD (100%)		Live	90.8 Ha	90.8
G 77/133[3]	1/08/2018	28/01/2040	Montague Resources Australia PTY LTD (100%)		Live	11.2 Ha	11.2
G 77/134[2]	22/09/2018	17/04/2040	MH Gold PTY LTD (100%)		Live	30.0 Ha	30.0
G 77/136[2]	18/12/2018	17/07/2040	MH Gold PTY LTD (100%)		Live	11.2 Ha	11.2
G 77/137[2]	24/06/2020	18/02/2042	MH Gold PTY LTD (100%)		Live	210.8 Ha	210.8
L 77/199[3]	26/07/2005	12/10/2027	MH Gold PTY LTD (100%)		Live	4.4 Ha	4.4
L 77/205[1]	8/11/2006	4/04/2034	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	30.0 Ha	30.0
L 77/207[2]	8/11/2006	4/04/2034	MH Gold PTY LTD (100%)		Live	67.0 Ha	67.0
L 77/208[1]	8/11/2006	4/04/2034	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	20.0 Ha	20.0
L 77/295[3]	22/06/2018	21/10/2039	MH Gold PTY LTD (100%)		Live	131 Ha	131
L 77/296[3]	8/08/2018	9/12/2039	MH Gold PTY LTD (100%)		Live	10 HA	10
L 77/298[3]	7/09/2018	14/01/2040	MH Gold PTY LTD (100%)		Live	10 Ha	10
L 77/301[3]	4/06/2019	21/01/2042	MH Gold PTY LTD (100%)		Live	46.7 Ha	46.7
L 77/320[1]	23/04/2020	31/12/2999	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Pending	5 Ha	5
L 77/322[1]	13/07/2020	21/01/2042	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	5.1 Ha	5.1
L 77/323[1]	15/07/2020	8/04/2042	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	1.0 Ha	1.0
L 77/313[1]	7/11/2019	26/10/2041	MH Gold PTY LTD (50%)	SQM Australia PTY LTD (50%)	Live	357.1 Ha	357.1

Source: Searches of the Mineral Titles Online system administered by the Western Australian Department of Mines, Industry Regulation and Safety (DMIRS) conducted on January 21st, 2022.

1. Joint Venture tenement (SQM Australia 50% legal and beneficial owner)
2. Joint Venture tenement (SQM Australia 50% beneficial owner).
3. Joint Venture has a contractual right of access to the tenement for the purpose of the Project under the terms of an access agreement between Wesfarmers subsidiaries, SQM Australia and Covalent.

* Where M: Mining Lease, E: Exploration License, G: general purpose lease, and L: miscellaneous license.

3.4 Encumbrances

The QP is not aware of any material encumbrances that would impact the current resource or reserve disclosure as presented herein.

3.5 Risks to access, title or right to perform work

With relation to mining titles, the QP is not aware of any significant risks that may affect access, title, or the right or ability to perform work in relation to the Mt. Holland Lithium Project. However, the QP recognizes that further environmental approvals are required to mine beyond the 10 years to the full Life of Mine of the Ore Reserves. It is considered at the time of this report that the Project will be able to obtain the required permits beyond the first 10 years of operation and comply with any requisites needed for such purpose without materially affecting the Project assessment.

3.6 Royalties

Under the Mining Act and associated regulations, a mining royalty is payable to the State of Western Australia. A royalty of five per cent over the lithium concentrate sales or, when not sold but used as feedstock in the production of lithium hydroxide or lithium carbonate, the value of that feedstock applies.

A private royalty exists in favor of a third party in respect of tenements E77/1400 and E77/2099. Such third party is entitled to receive a 1.5% gross revenue royalty over any lithium production from these tenements. The third party is also entitled to receive AU$15.00 for every contained tonne of Li_2O classified in an Ore Reserve that is reported under the Australian Code for Reporting of Explorations Results, Mineral Resources and Ore Reserves (the "JORC Code") in respect of these tenements. SQM will be responsible for 50% of any amounts that may become payable under this royalty. The Project's current mineral resource and reserves are not located in the tenements subject to these terms.

3.7 Kwinana lease

In September 2021, Covalent entered into a long-term lease with DevelopmentWA[2] over 40.5 hectare site at Lot 15, Mason Road in Kwinana (being Lot 15 on Diagram 74883 contained within Certificate of Title Volume 1827 Folio 500) for the purposes of the construction and operation of a lithium hydroxide refinery for the Project.

[2] Western Australia State Government's central development agency

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Topography, Elevation and Vegetation

4.1.1 Topography, elevation, and landforms

The Project is located towards the southeastern limit of the Southern Cross Zone, a landscape and soil zone defined by the Department of Agriculture and Food of the Government of Western Australia. This zone is characterized by undulating plains and uplands. Deeply weathered regolith, colluvium and alluvium overlie greenstone and granitic rocks of the Yilgarn Craton, giving rise to red and yellow loamy and sandy earths, calcareous loamy earths, alkaline sands, yellow sands and salt lake soils.

The topography of the project development envelope is subdued with no strong landform features. Topographic elevations descend from 463 m AHD[3] in the northwest to 390 m AHD in the southeast. The average elevation across the envelope is approximately 435 m AHD. Natural gradients across the envelope are very gentle, typically less than 2°. The steepest natural gradients (5 - 6°) are associated with a subtle ridgeline located to the northeast of the accommodation village. Steeper gradients are associated with the historic mining operation, where slope angles range from 15 - 20° on WRLs, 20 - 35° on the tailings storage facilities (TSFs) or over 80° on the walls of abandoned pits. The heights of existing WRLs do not exceed 35 m above surrounding ground levels.

4.1.2 Vegetational setting

The mine is located within the Great Western Woodlands (GWW), which is nominated as a natural place under the National Heritage List. The GWW is situated in the semi-arid interior of southwest Western Australia and is one of the largest remaining, and most intact, temperate woodlands left on Earth. The GWW is an area of great biological diversity that extends over 16 million ha and supports approximately 3,000 species of flowering plants, about a fifth of all known flora in Australia (Covalent, 2020). The project considers different management plans to protect the flora and fauna identified within the project envelope.

4.2 Accessibility and Transportation to the Property

The Project is accessed by land using the Parker Range Road and Marvel Loch-Forrestania Road, which is currently an all-season gravel road. A section of The Parker Range Road connected to the Great Eastern Highway is a paved road with connectivity to Southern Cross, Kalgoorlie and Perth.

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3 Australian Height Datum (AHD) corresponds to the mean of a set of tidal height measurements which were recorded over the period 1966-1968 at 30 stations distributed around the entire coastline of Australia.

Also, the Project has access by air using an aerodrome and associated infrastructure in the southern part of the mine. The aerodrome has an east-west orientation following Civil Aviation Safety Authority (CASA) standards that will be certified by CASA.

4.3 Climate and Length of Operating Season

The regional climate is one of extremes, where droughts and major floods can occur within a few years of each other. The Bureau of Meteorology (BoM) Lake Carmody meteorological station (No. 10670) is located approximately 51 km southwest of the Project and provides 77 complete years of data.

The climate is semi-arid with a mean annual rainfall varying from 300 mm to approximately 350 mm, with mean and median annual rainfalls of 332 and 329 mm respectively. The rainfall that occurs during the early winter months of June and July tends to be more reliable and generally of a greater total amount than the less dependable, but more intense, summer rainfalls from January to March. Remnant tropical cyclones and associated depressions can occasionally bring heavy rains to the region; however, they are erratic and infrequent. Minimum and maximum annual rainfall totals of 156.2 and 558.3 mm respectively have been recorded at the Lake Carmody station.

On average, there are approximately 66 rain days each year, although this may be as low as 15 days and as high as 130 days. The longest period without rain was 138 days, between 1 November 1920 and 19 March 1921. Temperatures recorded at the BoM Hyden synoptic station, situated approximately 88 km west-southwest of the Project indicate the following:

- Mean daily maximum temperatures range from 33.7°C in January to 16.4°C in July.
- Mean daily minimum temperatures range from 15.9°C in February to 4.6°C in July.
- Highest and lowest daily temperatures of 48.6°C and -5.6°C have been recorded in February (2007) and July (1982) respectively.
- Typically, there will be in the order of 10 days each year with daily maximum temperatures in excess of 40°C, approximately 8.5 of which will occur in December, January, and February.
- On average 31 days each year can be expected when minimum temperatures will be 2°C or less and light ground frosts are possible. Two thirds of such days will occur in the months of June, July and August (Southern Hemisphere Winter).

In the absence of a local evaporation record, the average of pan evaporation data for the Merredin and Salmon Gums Research Stations has been applied to the Project. This provides a mean annual pan evaporation of some 1,867 mm (Kidman, 2017).

4.4 Infrastructure Availability and Sources

4.4.1 Water

Fresh water is supplied from the state-owned Gold Fields Water Pipeline. A 136 km self-owned and operated water pipeline has been constructed to connect the Gold Fields Water Pipeline tie-in in Moorine Rock to the Mt. Holland mine site.

4.4.2 Electricity

The power is planned to be sourced from the state grid by connecting to the existing Western Power transmission that runs along the east side of the deposit.

4.4.3 Personnel

The mine and concentrator are located south of the Southern Cross communities. The Project is expected to primarily source its labour on a fly-in/fly-out basis from Perth, which will allow personnel to be recruited from a wide talent pool. Covalent will also seek to employ people from the local communities in accordance with operational requirements.

The Kwinana refinery is located south of Perth where skilled labour is available in the region.

4.4.4 Supplies

The mine site is being supplied via road access through the Marvel Loch-Forrestania Road. The Project budget includes scope to upgrade and seal the road between the Great Eastern Highway and the Mt. Holland site.

The Refinery is located in the Kwinana Industrial area, with good access through local roads. Sulfuric acid, water, gas and sodium hydroxide are planned to be supplied via pipeline, while other supplies are mainly expected to be supplied by road. Spodumene concentrate will be supplied through a rail-road combination or by a solely road option.

5 HISTORY

The Forrestania Greenstone Belt (FGB) and its northern extension, the Southern Cross Greenstone Belt, have long been the focus of gold and nickel exploration. The gold and nickel potential of the area was first recognised in 1980 by Harmark Pty Ltd, which led to an extensive exploration campaign. In 1985 Aztec Exploration Ltd conducted soil sampling over the Bounty area, which highlighted numerous discrete zones, with results ranging from 100 to 1,000 parts per billion (ppb) gold within a broad anomalous trend. Follow-up rotary air blast (RAB) and follow-up reverse circulation (RC) drilling intersected the main body of gold mineralisation. Mining of the Bounty deposit started in 1988, with over 640,000 t at 5.55 grams per tonne (g/t) gold for 114,000 ounces of gold mined from the Bounty, West and North Bounty pits. Underground mining commenced at Bounty and Bounty North, resulting in a total exceeding one million ounces of gold mined (Covalent, 2020).

Several satellite pits were also mined to provide supplementary oxide feed to the Bounty Mill, and these include the Blue Vein, Earl Grey, Darjeeling, Jasmine, Razorback, Bushpig, Tasman, Diemens, and Blue Haze deposits. Except for the Blue Vein deposit, these deposits have been largely unexplored since the cessation of gold production in 2002.

The rare-element pegmatite potential of the FGB was first recognized in the mid 1970's when a small, complex lepidolite-type pegmatite was discovered during nickel exploration. This pegmatite produced small quantities of tantalum and gem quality elbaite (rubellite) and beryl (morganite). Narrow spodumene-bearing pegmatites have been proven several kilometers to the north.

No systematic exploration for rare-element pegmatites had been undertaken in the district since the discovery of the rubellite and tantalum-bearing gem pegmatite in the early 1970s. Following the acquisition of the Project from the administrators of Convergent Minerals, Kidman Resources undertook a high-level review of the region which led to the discovery of the Bounty and Earl Grey pegmatites.

Exploration by Kidman Resources beginning in 2016 defined numerous occurrences of rare element pegmatites across the FGB. By far the most significant of these corresponds to the Mt. Holland (Earl Grey) Deposit. Albite-spodumene type pegmatites have been encountered at Bounty and Blue Vein. Albite-type pegmatites have been proven at Prince of Wales. Complex spodumene and lepidolite type pegmatites have been determined at Blue Vein, Mt Hope and South Holland (Kidman Resources, 2018).

6 GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT

6.1 Regional, Local, Property Geology and Significant Mineralized Zones

6.1.1 Regional Geology

The Forrestania Greenstone Belt is located within the Southern Cross Domain of the Youanmi Terrane, one of several major crustal blocks that form the Archaean Yilgarn Craton of south-western Australia. The FGB and its northern extension, the Southern Cross Greenstone Belt (SCGB), form a narrow 5–30 kilometers wide curvilinear belt that trends north–south over 250 kilometers. The greenstone broadly comprises a lower mafic-ultramafic volcanic succession and an upper sedimentary succession intruded and bounded by granitoid plutons. The lack of outcrop and the complex structural history of the FGB makes a detailed geological map and stratigraphic framework difficult to establish, with most authors simply dividing the succession into individual north–south trending “ultramafic belts” for stratigraphic and exploration purposes (Kidman Resources, 2018).

No formal names are currently recognised by Geoscience Australia or the Geological Survey of Western Australia for any stratigraphic units within the greenstone belt (DMIRS, 2018). The basement geological map is included in Figure 6-1. The grade of metamorphism increases from upper greenschist-lower amphibolite facies between Bounty and Mt Hope up to granulite facies in the north and northeast of the belt (Figure 6-2).

The greenstones are intruded and bounded by voluminous granitoid plutons of syn and post-orogenic affinity. The rare-element pegmatites of the belt are believed to be genetically related to a suite of post-orogenic low-Ca granitoids, and cluster in two known fields, Mt. Holland and South Ironcap. A series of east-west trending dolerite dikes belonging to the Widgiemooltha dike swarm cross-cut the belt.

6.1.2 Local Geology

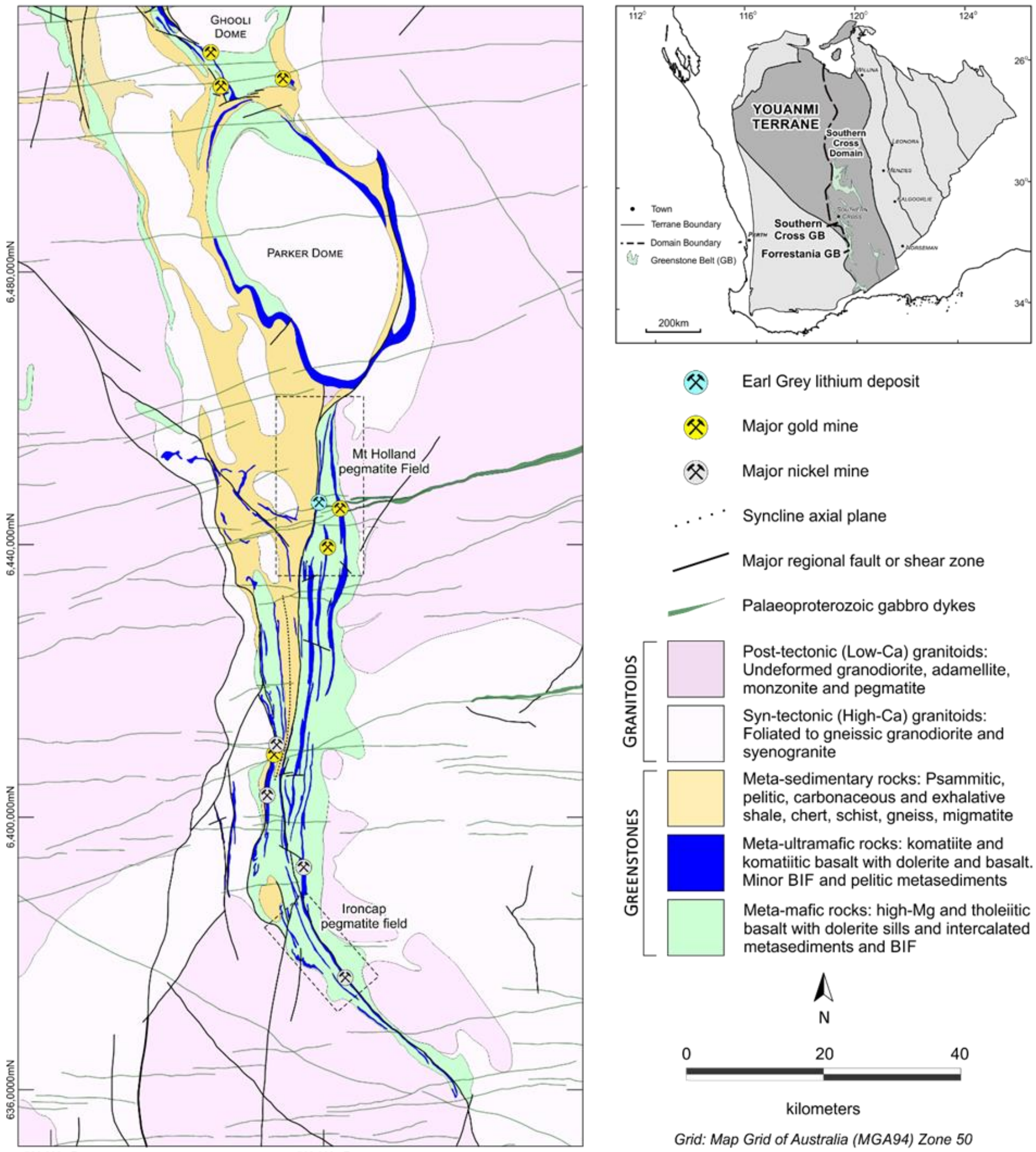
6.1.2.1 Bedrock Geology

The Earl Grey pegmatite is hosted within the north-south trending amphibolite facies volcano sedimentary stratigraphy of the mid-eastern ultramafic belt (Figure 6-3). The stratigraphic succession broadly progresses up-dip towards the west, although potential repetition along major north-south trending shears makes the original sequence difficult to ascertain.

The base of the sequence is dominated by high-Mg basalt with intercalated horizons of andesite, mafic sediments, Banded Iron Formation (BIF), komatiitic basalt and tholeiitic sills. A package of komatiites with intercalated BIF sits atop the high-Mg basalt, with this contact appearing at least partly structural. At the far west of the deposit, pelitic and carbonaceous schists of the upper sedimentary succession occur in faulted contact with the komatiites,

Two major Proterozoic dolerite dikes intersect the greenstone sequence in the vicinity of Earl Grey, including the 400 m wide Binneringie dike, which marks the southern extent of the deposit.

Figure 6-1. Simplified geology of the FGB, highlighting known pegmatite fields

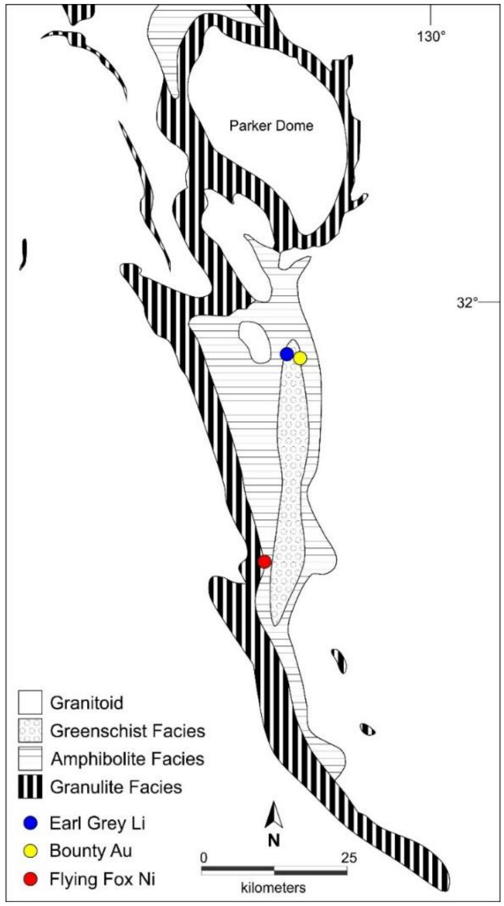


Source: Covalent (2020) based on DMIRS 1:500.000 interpreted bedrock geology map (2018)

6.1.2.2 Surface geology

The residual weathering zone around the Earl Grey pegmatite extends 30 to 40m below surface, with few instances of outcrop or subcrop in the area. Shallow depressions of limited extent contain minor alluvial and colluvial sediments; however, no significant channels have been identified in the immediate area. The area is predominantly covered by a veneer of laterite, up to 5 m in thickness, which is underlain by a 10 to 15 m deep alluvial zone of pallid grey to mottled clay material. The regolith becomes increasingly iron-rich toward the base of the weathering profile, with ferric induration common.

Figure 6-2 Map of interpreted peak metamorphic conditions across the FGB



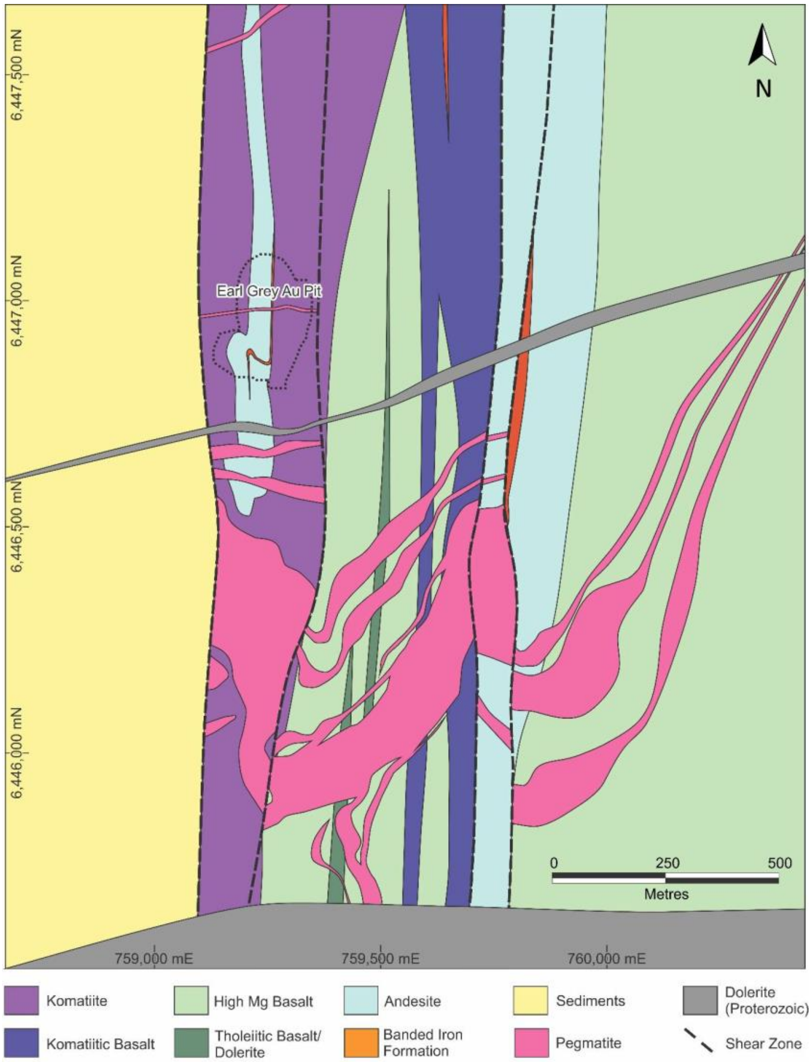
Source: Modified from Ahmat (1986).

6.1.3 Earl Grey pegmatite

The Earl Grey pegmatite group consists of a main tabular pegmatite body flanked by numerous narrower hanging wall and footwall apophyses. The pegmatite has a strike length of at least 1 km, and a dip extent of over 2 km and a thickness of up to 100 m. The pegmatites become progressively narrower and more branched to the south and the east of the main pegmatite until even the main body divides into several narrower dikes. Narrow blocks of enclosed wall rock rafts are present within some areas of the pegmatites.

The pegmatites intrude with an approximate strike of 210° to 220° and dip of 5° to 15° to the northwest. At their western margin, the pegmatites appear to be affected by gentle folding. The dip of the pegmatites is variable, with the pegmatite steepening from sub-horizontal in the south to 10° to 15° to the northwest north of the Earl Grey gold pit. Several footwall pegmatite branches dip to the southwest at around 20°, potentially intruding the same set of structures as the Bounty pegmatites.

Figure 6-3. Simplified local geology of the Earl Grey pegmatite at 350 m RL.



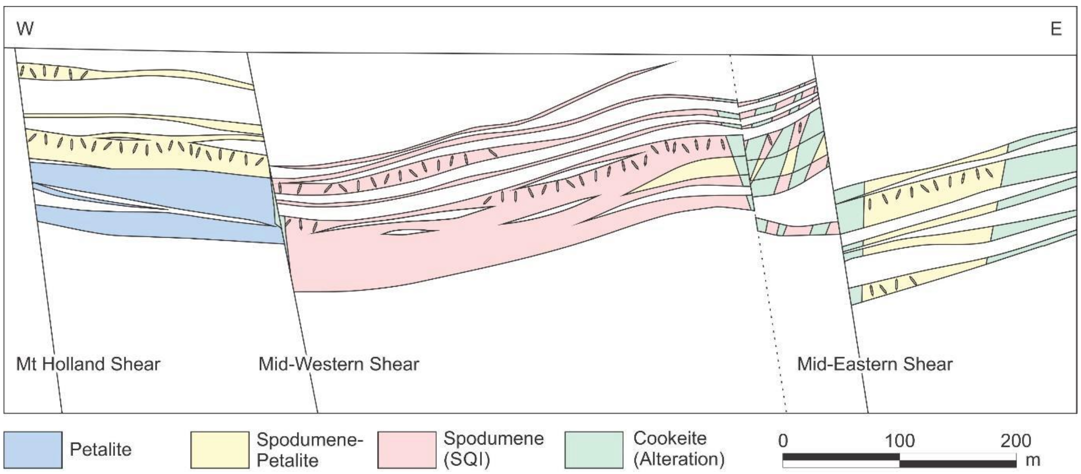
The pegmatite group is truncated to the south by the east-west trending Binneringie dolerite dike. Similarly, a 20 m thick dolerite dike crosscuts the pegmatite south of the Earl Grey gold pit. The full down-dip depth extent of the pegmatites is not currently understood, with deep drillholes suggesting the main pegmatite pinches out and another pegmatite of similar thickness develops in the hanging wall. The eastern extents of the pegmatites have not been well defined at this stage, with the pegmatites narrowing to sub-meter thickness at around 1.5 km east of the Mt. Holland Shear (Covalent, 2020).

6.2 Deposit Types and Mineralization

The Earl Grey pegmatite group consists of a simple albite-quartz-microcline-spodumene petalite dominated assemblage with minor biotite, muscovite, and tourmaline (Covalent, 2020). The lithium aluminosilicates spodumene and petalite are by far the most abundant lithium-bearing minerals in the Earl Grey pegmatite; however, a wide array of trace lithium phases has also been documented in distinct domains. These are mostly late-stage alteration related phases, and except for cookeite, are a rare occurrence. Textures range from extremely coarse pegmatite through to finer grained seriate granitic to aplitic and late-stage replacement textures. The Earl Grey pegmatite group does not display the strong concentric mineralogical zonation commonly associated with complex rare element pegmatites.

The spodumene, petalite, and alteration assemblages are restricted to distinct zones within the pegmatite and are strongly correlated with individual fault blocks and their bounding structures, Figure 6-4.

Figure 6-4. Schematic cross section of the Earl Grey deposit displaying lithium mineral domains.



7 EXPLORATION

7.1 Nature and Extent of Exploration

Extensive exploration supports the resource and reserve estimation, and it is comprised of surface mapping and extensive subsurface drilling carried out on the property in consideration that the pegmatite is not outcropping in the area. Exploration has predominantly been carried out by Kidman Resources since 2016, for the discovery and resource definition. Since 2020, Covalent has done additional diamond and RC drilling for metallurgical sampling and improvement definition of the Orebody geometry in the proposed starter pit area.

7.2 Historical Exploration

Historic exploration at the Earl Gray deposit is primarily drilling based. Many historic surveyed diamond and RC exploration drillholes along the Twinings gold trend contained narrow pegmatite intercepts which have been of use in delineating the geometry of the northernmost hanging wall pegmatite dikes in the mid-western block. Most have not been assayed for elements other than gold and as such, the logged pegmatite boundaries have been utilized to generate the pegmatite volumes. The historic reverse air blast (RAB) and air core (AC) drillholes have not been used for resource estimation (Kidman Resources, 2018; Mining Plus, 2021).

7.3 Exploration Since 2016

7.3.1 Drilling

Orebody definition was informed through a series of drilling campaigns. Initial discovery drilling was completed prior to 2016 and followed up with resource definition drilling to support the maiden resource in 2016 and an updated resource statement in 2018. During these campaigns twin holes were also drilled using diamond drill equipment to provide samples for metallurgical testing.

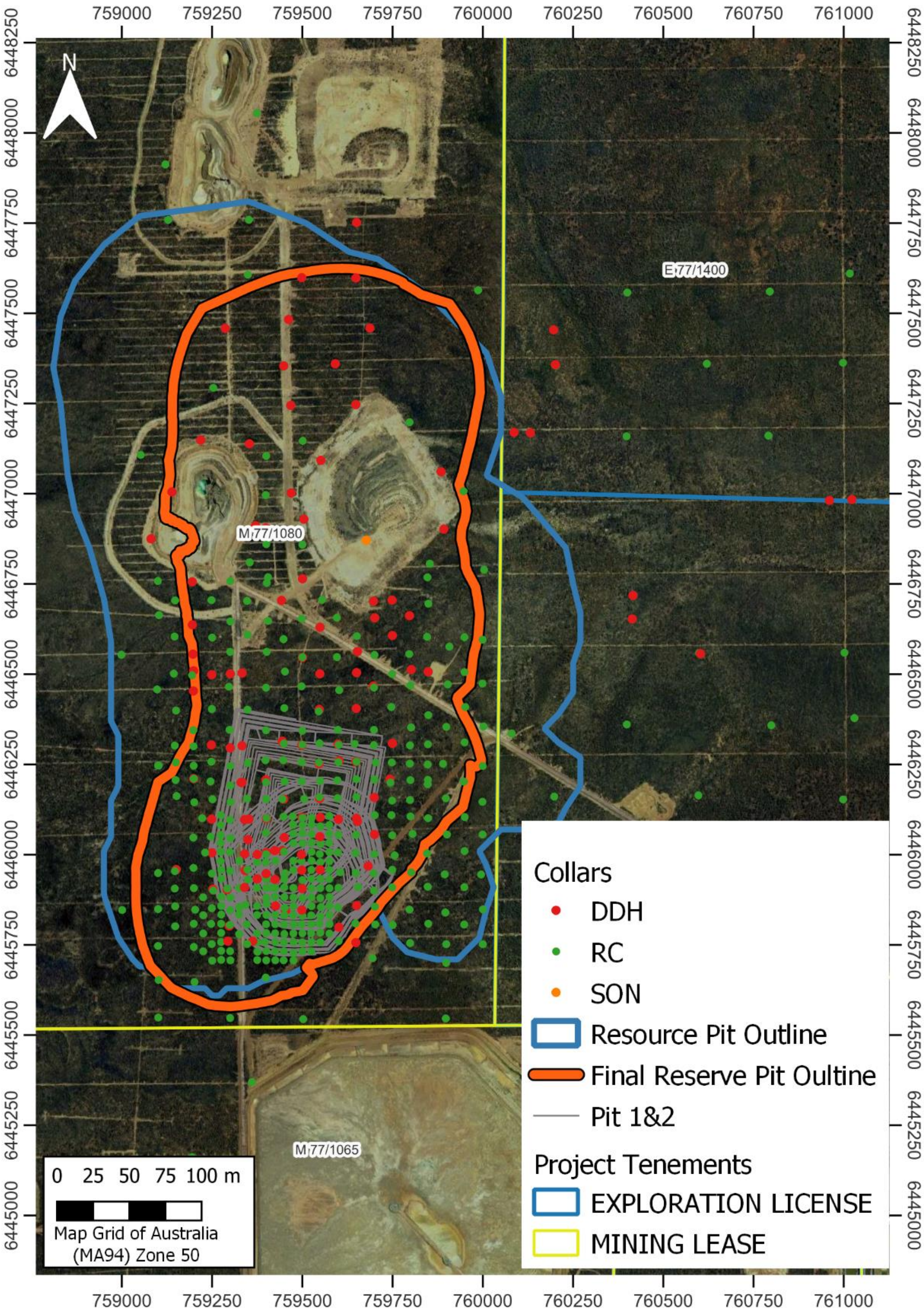
Covalent's 2020 drilling program included additional diamond drilling for metallurgical sampling as well as a campaign by Strike Drilling Pty Ltd of Perth, with the objective of improving definition of the Orebody geometry in the proposed starter pit area. Table 7-1 includes a summary of drill hole information at completion of the 2020 drilling campaign. The location of the drill collars is shown Figure 7-1.

Table 7-1. Drillhole summary

Drillhole Type	Number of Drillholes	Number of Drilled Meters
RC	476	75,458.3
DD	125	26,631.2
SON	1	15.0
Total	602	102,104.5

Source: Mining Plus (2021) resource estimation

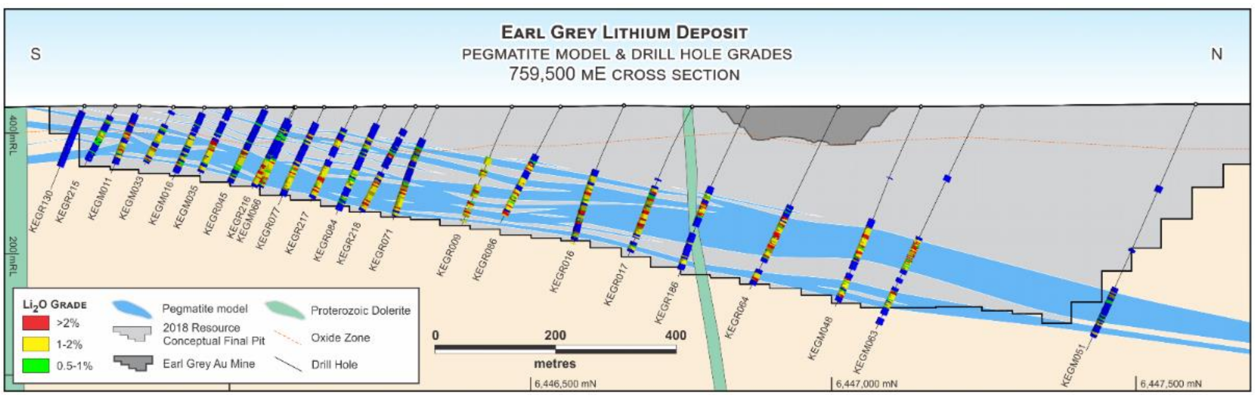
Figure 7-1. Location of drill collars shown with proposed starter pit and final pit outline



The majority of drillholes present at Earl Grey have been drilled using reverse circulation (RC) standard drilling techniques. The diamond drilling comprises NQ, NQ2, HQ and PQ sized drillholes drilled for geological, metallurgical, and geotechnical purposes. Recoveries for RC pre-collar and RC drill holes ranges between 70-90% in this geological / geomorphological setting. Recoveries for the DD drill core are in the order of 95-100%. Recoveries are notably less where shear zones or other structural disruptions have been intersected.

The orientation of the drill holes in relation to the pegmatites sampled, as interpreted by Covalent, are shown on sections in the Figure 7-2. Geological modelling indicates most drill holes intersected the pegmatite at relatively acute angles (less than 90°), and therefore the intersect length is not considered a representations of the pegmatite true thickness and the real thickness is determinate based on the geologic modelling.

Figure 7-2 759,500mE Cross Section of Earl Grey pegmatite with drill intercepts within 2018 MRE Conceptual Pit



Source: Kidman Resources (2018).

The resource has been drilled at either a 25 x 25 m orthogonal grid, a 50 x 50 m orthogonal grid or a 50 x 50 m dice-five pattern, with minor areas of drilling at 100 x 100 m and greater in the along-strike and down-dip extension areas, Figure 7-1.

Resource drilling was initially carried out on wide spacing to determine the extent of the mineralization. This was followed up by a drilling program on a 50 m by 50 m grid to support the resource estimate. Through the Project development in 2020, the proposed starter pit location was identified (as indicated on the map in Figure 7-1) and the 2020 grade control drilling program was designed to provide in-fill drilling in this area at a higher density. This information will inform mine design during the initial start-up years.

7.3.2 Drillhole Surveys

The drillholes location points were surveyed by handheld GPS initially. Re-survey of the drill hole collar co-ordinates was undertaken by KDR and Covalent for all drill holes reported by a subcontractor using survey industry standard differential GPS technique. Holes were surveyed using traditional downhole gyroscopic survey at intervals ranging between 10 to 30 m.

7.3.3 Logging

All drill holes were geologically logged and recorded within a database by KDR initially and then by Covalent. All the core and rock chips intervals from the reported drill holes have been logged and compiled into a database.

Quantitative and qualitative geological information captured by KDR, and Covalent Geologists was imported and consolidated into a database, for interpretation, analysis, and verification purposes.

All drill hole data includes:

- Geological logging over geological and alteration basis, dependent on observed changes for various parameters (e.g., lithology, mineralogy, weathering, structural occurrence, etc.), based on procedures developed by KDR following industry standards.
- Drill core intervals were also logged on a geotechnical basis and structural orientation measurements recorded.
- Drill core was routinely photographed on core tray basis.

In the QP's opinion the geological data was collected in sufficient detail to aid in Mineral Resource Estimation and Reserve definition.

7.4 Hydrogeology

7.4.1 Regional Hydrogeological Setting

The Project is within the Westonia Groundwater Area of the Southern Cross Province. The principal groundwater sources in the Southern Cross Province comprise:

- Regional catchment-controlled flow systems in fresh and weathered fractured rock.
- Tertiary paleochannel sands.
- Calcrete units that commonly overlie paleochannel deposits.
- Shallow alluvium.

Paleochannel sands, calcrete and shallow alluvial deposits constitute locally important aquifers in the Southern Cross region, although the chemical quality of the groundwater is variable, with salinity tending to increase downstream in the system. The highest quality (lowest salinity) groundwater is found in the meteoric recharge zones, in proximity to the groundwater catchment divides. Tertiary paleochannel fill to the east of the Project comprises gypsiferous silts and sands.

The deep weathering profile of the ultramafic and basaltic sequences characteristic of the Southern Cross region, result in a thick siliceous caprock. Modest supplies of groundwater can be obtained from this weathered zone. Fractured basement aquifers are characterized by secondary porosity and permeability, resulting in complex fracturing, enhanced by chemical dissolution. The storage capacity and hydraulic conductivity of these aquifers is dependent on density of interconnected jointing and fractures (secondary porosity). In the vicinity of the

Project, fracturing below the caprock is prevalent, with the development of siliceous magnesite veins. The groundwater supplies are typically saline to hypersaline (Kidman, 2017)

7.4.2 Earl Grey Hydrogeological Setting

Hydrogeological investigation drilling was undertaken by Groundwater Resource Management (2017) and KDR (2017). The investigation was focused on the proposed footprint of an open pit to exploit the Earl Grey Ore Body. 14 RC boreholes we drilled to the base of the Earl Grey Deposit. Test work included airlift yield and recovery testing, permeability estimation as well as groundwater sampling and hydrochemical laboratory analysis. The primary aims of the initial investigation were to: (i) evaluate site groundwater conditions, (ii) estimate the likely range of dewatering rates required for mining the Earl Grey Ore Body, and (iii) assess the likely hydrochemical quality of the abstracted groundwater. The investigation concluded that:

- The water table is relatively deep, ranging from 58 to 70m below original ground level.
- Low permeability conditions are generally present across the proposed pit footprint.
- Airlift yields were very low, ranging from 0.2 to 4.0 l/s, with two holes found to be dry.
- The northern region of the proposed pit presents higher pumping yields than the southern region.
- Permeability estimates ranged between 0.006 and 0.020 m/d.

With respect to the hydrochemical quality of pumped groundwater, the following conclusions were reached:

- Very slightly acidic to circum-neutral waters, with pH values in the range 6.1 to 6.8.
- The waters are saline to hypersaline, presenting total dissolved solids (TDS) concentrations ranging from brackish to brines, between 17,000 mg/l (parts per million, ppm) and 120,000 mg/l. For comparison, the average salinity of ocean water is around 35,000 mg/l.
- Sodium and chloride as the dominant ions. Bicarbonate, calcium, and magnesium are also present in significant concentrations.
- The water is chemically very hard.

7.4.3 Bounty Mine Water Supply Hydrogeological Setting

The Bounty water supply supplemented the borefield and operated between 1988 and 2001. Numerous studies were undertaken over this period and the hydrogeology is well understood. Dewatering was achieved by a combination of pumping from the Bounty underground mine and abstraction bores near the underground portal. Inflows to the mine void were found to be structurally controlled by fractures, shear zones and a cross cutting pegmatite vein. At the end of mining in 2001, the abstraction rate for the Bounty mine was approximately 2,400 m^3/d, equivalent to 440 US gallons per minute (Groundwater Resource Management, 2014). The Bounty water supply is hypersaline, varying between 75,000 and 140,000 mg/l TDS and has a circum-neutral pH of between 6.2 and 7.6 (GRM 2014).

7.4.4 Southern Borefield Hydrogeological Setting

An existing borefield is located approximately 8 km southeast of the accommodation village and was operated between 1988 and 2002. The borefield is situated in the Mt Hope caprock aquifer, located on the eastern flank of the Forrestania-Southern Cross Greenstone belt. The geology in this area is characterized by a north-northwest striking, steeply dipping Archaean succession of altered mafic and ultramafic volcanic flows with associated metasediments.

The ultramafic lava flows have been subject to structural deformation, and in places are extensively weathered, resulting in the development of a fractured, silicified, vuggy caprock aquifer of limited vertical and lateral extent. Current knowledge of the aquifer indicates that it is relatively narrow but extensively developed along its strike. The aquifer has a known strike length of 4,500 m and is 20 to 40 m thick. It is underlain by slightly weathered ultramafic or basaltic lavas. Fractures and shear zones in strata adjacent to the ultramafic caprock may increase the extent of this aquifer and the volume of available groundwater resource.

The caprock aquifer is highly anisotropic, with permeability being controlled by the spatial density of interconnected fractures, and the degree of weathering and alteration of the rock. Test pumping data suggests that aquifer conditions vary locally from unconfined with a delayed yield type response to semi-confined with leakage effects. During operations, the borefield pumped at up to 3,000 m^3/d, equivalent to 550 US gallons per minute. Recoverable storage volumes for the aquifer have been estimated to be around 20,000,000 m^3, equivalent to 5.28 billion US gallons. The static water level in the borefield is typically between 7 and 18 m below ground level and the water quality is hypersaline, with TDS values ranging between 73,000 mg/l and 87,000 mg/l.

In the QP opinion, the completed hydrogeologic studies, collected data, and subsequent analysis is appropriate for the overall low hydraulic conductivity of the local hydrogeologic system.

7.5 Geotechnical Data, Testing and Analysis

Different geotechnical studies, geotechnical characterization tasks and pit slope stability evaluation, surface analysis, old pits and drilling information have been carried out. Task and studies developed include:

- Rock Quality studies> Rock Quality Designation (RQD) and fracture counts per meter of core were measured.
- Laboratory rock strength testing on representative samples of borehole core. Testing was performed by WASM Geomechanics Laboratory.
- Discontinuity orientation data collection in old pits.
- Mining Rock Mass Classification (MRMR)
- Block Stability studies
- Limit equilibrium stability analysis

- Slope Designs.

The collected data was used for pit design. In the opinion of the QP, the data collected is sufficient for an initial mining. Quantitative slope stability monitoring will be required throughout all stages of mining and local adjustments to design parameters may be necessary to satisfy stability requirements.

8 SAMPLE PREPARATION, ANALYSIS AND SECURITY

8.1 Sampling Techniques

The sampling of the bearing pegmatites is based in the drillhole sampling. All metallurgical / geotechnical / Mineral Resource definition drill holes target spodumene-bearing pegmatite within and adjacent to the Earl Grey Lithium Mineral Resource announced 19th March 2018

All drill holes have had sample intervals selected from them by KDR and Covalent personnel; on average over 1m intervals, based on return interval and geological logging

- RC samples were homogenized by cone splitting prior to sampling and assayed at 1m intervals
- Selected samples from cored holes were taken from the core trays by lengthwise quarter (or half) core cutting method as per industry standard practice
- Samples were selected on a basis of pegmatite intersection in which notable spodumene/petalite occurs, or other notable geological features and hence are not an entirely unbiased sample. Sampling is relevant to the type of deposit being studied and follows best industry practice

Samples were forwarded to a certified laboratory for analysis where they were weighed, crushed, reweighed, pulverized, and split to produce a ~200g pulp subsample to use in the assay process

- Earl Grey drilling included 41,522 total samples from the drill holes, which were assayed by inductively coupled plasma mass spectrometry (ICP-MS) or optical emission spectroscopy (ICP-OES)
- 1,551 field duplicate samples were in evidence within the reported sampled intervals.
- 1,908 check/standard samples were in evidence within the reported sampled intervals.
- 1,494 Samples were analyzed by XRD for mineralogy determination.

8.2 Sub-sampling techniques and sample preparation

Select sample intervals were sub-sampled on a near to 1 metre basis within geological boundaries. Interval samples of less than 1 metre are restricted by geological, alteration or other notable feature boundaries.

Samples were selected on a basis of core return interval of pegmatite occurrence; hence may not be an entirely unbiased sample this is common practice for such type of drilling and deposit.

8.2.1 Core Sampling Preparation

Core samples were marked up prior to logging and sampling as per standard industry practice. The core samples selected were cut lengthwise by diamond blade saw to give two half core lengths and halved again for quarter core samples. This is normal industry practice. One half, or one quarter, of the selected core sample was collected and bagged, marked up and forwarded to a laboratory for analysis. The remainder of the sample length split samples have been retained for reference at the core storage facility.

8.2.2 Reverse Circulation Sample Preparation

Reverse Circulation holes for sampling were cone and quarter split directly from the cyclone, utilising dust suppression techniques, with ¼ of the spilt being bagged as the sample for analysis. It is standard industry practice to either retain a ¼ split for future studies and or to retain a chip tray of the spoils for future viewing.

8.2.3 Sample Preparation and laboratories

Covalent utilizes (and previously, KDR) the independent analytical services of Australian Laboratory Services Pty Ltd (ALS) (https://www.alsglobal.com), a NATA (National Association of Testing Authorities) and ISO 9001:2008 accredited laboratory. ALS laboratory is commercial and independent of KDR or Covalent. As umpire laboratory Covalent and KDR utilized Nagrom Analytical Services (http://www.nagrom.com.au/).

The sample preparation procedure used includes the following:

- Sort all samples and note any discrepancies to the submittal form
- Record a received weight (WEI-21) for each sample,
- Crush samples to 6mm nominal (CRU-21),
- Record a crushed samples weight,
- Split any samples >3.2Kg using a riffle splitter (SPL-21),
- Generate internal laboratory duplicates for nominated samples, assigning a 'D' suffix to the sample number,
- Pulverize samples in LM5 pulveriser until grind size passes 90% passing 75µm (PUL-23),
- Check pulverize size on 1:20 wet screen (PUL-QC),
- Take ~ 100g work master pulp for 0.2g sample for sodium pentoxide fusion with ICP-OES or ICP_MS finish.

The analytes listed in Table 8-1 are determined by the laboratory assays. Additionally, for selected samples, Au is appended to the standard list of 25 analytes.

Table 8-1. List of analytes routinely assayed in Mt. Holland geochemical samples

Al_2O_3	As	Be	CaO	Co
Cr_2O_3	Cs	Cu	Fe_2O_3	K_2O
Li_2O	MgO	MnO	Nb	Ni
Pb	Rb	S	SiO_2	Sn
Ta	Th	TiO_2	U	Zn

8.3 Quality of assay data and laboratory tests

For all samples reported the elemental concentrations have been determined as described in the previous section. The total samples used for the resource estimation and the QAQC program used is listed below:

- 41,522 Earl Grey samples were assayed by inductively coupled plasma mass spectrometry (ICP) or mass spectrometry (MS)
- 1,551 field duplicate samples from the Earl Grey Lithium deposit
- 1908 check / standard samples were submitted for the reported sampled intervals.
- QAQC is also reliant upon high standard laboratory practice and supply of laboratory internal QAQC data.

An example of the Batch sent to the lab for the drilling campaign executed between August 2020 and January 2021 is shown in Figure 8-1, Figure 8-2 and Figure 8-3. The QAQC samples analysed by KDR and Covalent, in addition to laboratory QAQC checks, have indicated the assaying shows acceptable levels of accuracy and precision for a resource estimation and a reserve definition.

Figure 8-1 Field duplicates assays for Lithium

Primary Assay Result (Li2O)		Duplicate Assay Result (Li2O)	
Mean	1.00	Mean	0.98
Standard Error	1.12	Standard Error	1.12
Standard Deviation	0.79	Standard Deviation	0.77
Range	3.45	Range	3.10
Minimum	0.02	Minimum	0.02
Maximum	3.47	Maximum	3.12
Count	345	Count	345
Bias (%)			-1.160
Root Mean Square Error (RMSE)			0.373

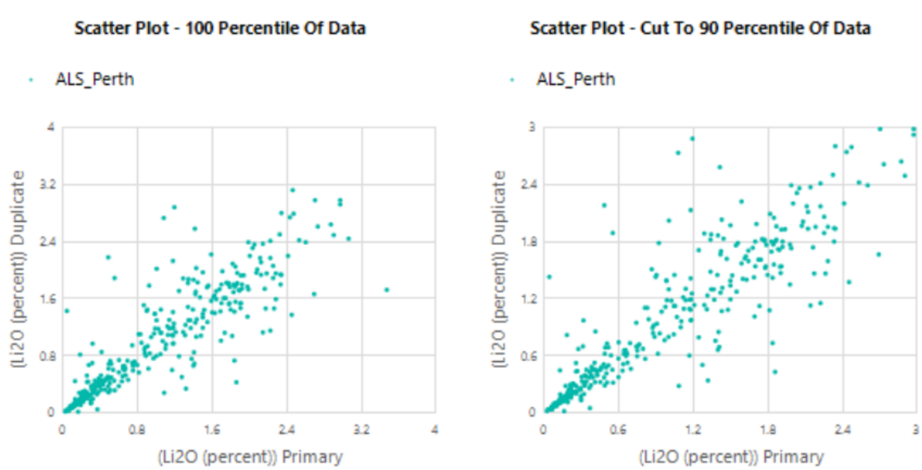


Figure 8-2 Blank Material reference Lithium

Field Standard - Blk2020 **Element: Li2O (percent)**

Database: master

No. of Samples	No. of Batches	Avg Samples per Batch	Nominated Value	Avg Assay Result	Std Dev	Min Assay Result	Max Assay Result	Orig Samp Variance	Range
141	29	1.00	0	0.01	0.007	0.00	0.05	0.00	0.04

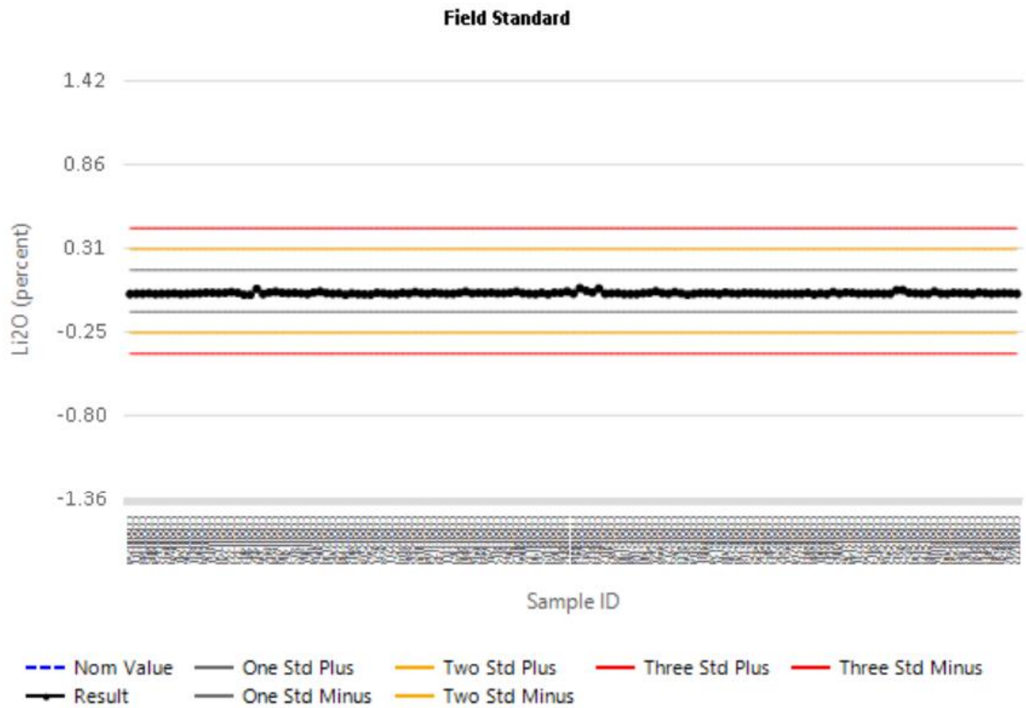
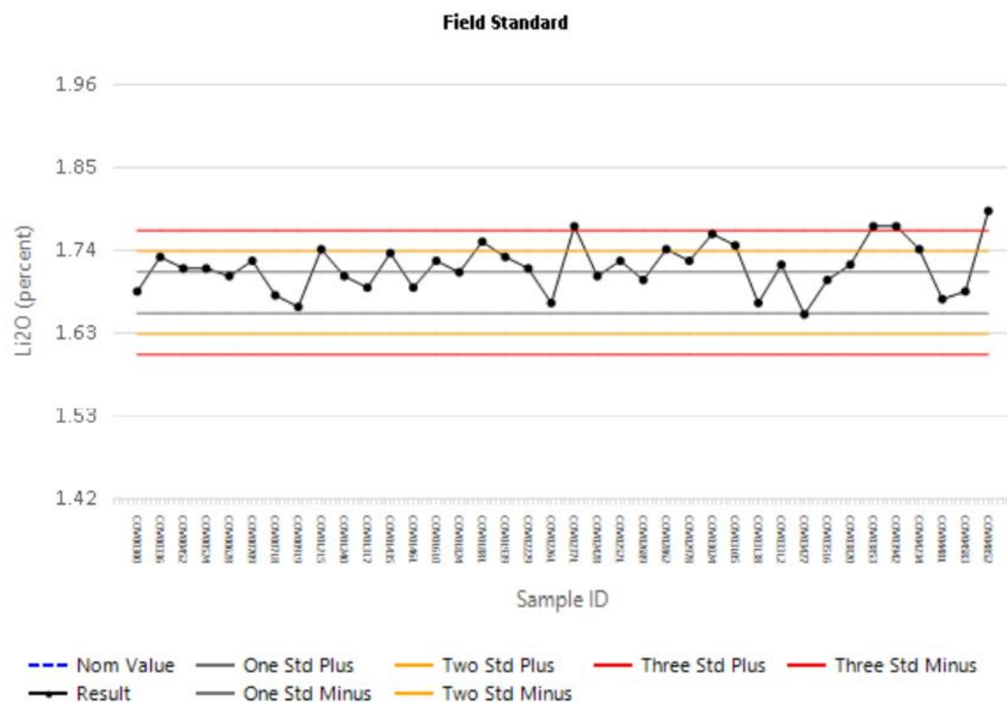


Figure 8-3 Control Chart for Lithium Reference Material.

Field Standard - GTA-06 **Element: Li2O (percent)**

Database: master

No. of Samples	No. of Batches	Avg Samples per Batch	Nominated Value	Avg Assay Result	Std Dev	Min Assay Result	Max Assay Result	Orig Samp Variance	Range
38	18	1.00	0	1.72	0.035	1.66	1.80	0.00	0.14



8.4 Opinion of Adequacy

In the QP's opinion, sample preparation, sample safety, and the analytical procedures used, agree with industry standards and there are no significant issues. The majority resource and reserve are supported by modern drilling with recent QAQC, and analyses as described above.

Detailed procedures are in place to ensure the correct and repeatable execution of field sampling and laboratory analysis protocols, as detailed in the resource estimate reports.

9 DATA VERIFICATION

9.1 Data Verification Procedures

Verification by the QP covered field exploration, drilling, descriptions of drill core and cuttings, laboratory results for chemical analyses, quality control results, review of surface and downhole surveys, and review of the data entry and data storage systems. Twin holes have been used with no significant variation between assay grades. The difference falls within error margin of the sampling technique. It is considered that KDR and Covalent have a standard capable of ensuring good control and quality of the data obtained during drilling and assaying.

Based on the review of the quality control data in the period, it is considered that the sampling procedures, as well as those of preparation and analysis for Li and other elements were adequate for the spodumene rich rock samples, and that the resulting analytical data is sufficiently accurate.

There are no limitations on the review, analysis, and verification of the data supporting mineral resource estimates within this TRS. It is the opinion of the QP that the geologic, chemical, and metallurgical data presented in this TRS are of appropriate quality and meet industry standards for data adequacy for mineral resource and reserve estimation.

9.1.1 Data Management

Primary historical data and any re-logging / new sampling data have been compiled into the Covalent database. This database has undergone a process of validation, evaluation, and consolidation by KDR and Covalent. This is standard practice and is expected to continue as the project progresses.

The geological logging and sampling information is loaded and stored into a SQL database by Colwyn Lloyd of GeoBase. Import validation protocols are in place. Database validation checks are run routinely on the database.

No adjustments or calibrations to the original assay data have been made, all original data is maintained within the database. All reported intercept intervals are normalized to the sample interval – weighted average method.

The QP, plus the Covalent and Kidman Resources team has reviewed a large number of extracts from the drill hole logs and drill hole data, these have been cross referenced to requested laboratory certificates as part of the technical expert audit process, no major discrepancies or inconsistencies have been noted.

9.1.2 Technical Procedures

The QP reviewed the data collection procedures, associated to drilling and sampling. Kidman Resources and Covalent has a set of technical procedures for each of its field activities. These procedures seek to establish a technical and security standard that allow for field data to be optimally obtained, while at the same time guaranteeing the safety of its workers.

9.1.3 Quality Control Procedures

The QP reviewed the data collection and quality control procedures carried by Kidman Resources and Covalent. The procedures are considered adequate. It is evident that they used adequate insertion rates for different controls.

9.2 Limitations

All details and data on QA/QC methodology disclosed in this report are second-hand and provided by Covalent and KDR but were reviewed in detail by the QP. It is important to note that QP conducted an independent QAQC review as part of the Due Diligence when SQM purchased 50% of the project using an umpire lab in 2017 with no material differences. No material changes have been done in procedures since 2017.

9.3 Opinion of Adequacy

In the QP's opinion, the data verifications done up to date agree with industry standards and there are no significant issues. The data available is adequate for estimation of geologic resources and reserves present in the mining property.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

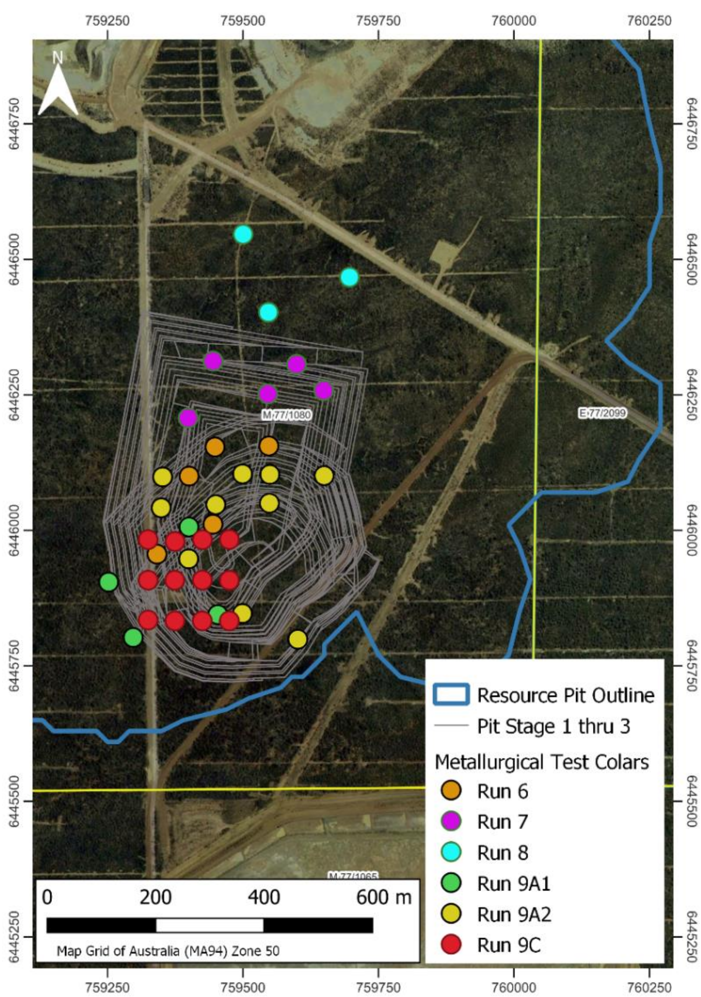
Testwork campaigns to support the concentrator flowsheet and engineering design were completed at accredited laboratories under the supervision of Covalent (Table 10-1). Testwork execution follows best practice guidelines, including review of current practices, tracking of information and verification of test methodologies. The results disclosed in this paragraph are based on UIDFS (2020).

10.1 Concentrator Testwork program

10.1.1 Sample selection and testworks

Samples for metallurgical testwork were sourced via drilling campaigns using both reverse circulation (RC) and diamond drill holes. Most of the metallurgical samples collected were in the area of the proposed starting pit for the mine. A map showing the location of samples collected for the pilot scale runs is included in Figure 10-1.

Figure 10-1. Distribution of diamond drill core samples used for metallurgical testing



For the concentrator testwork program, the drillhole samples were transported to Nagrom, a mineral processing facility in Perth. Bulk composites were generated by combining the drill core ore samples identified for each pilot run. All composites were prepared by combining downhole samples, providing an average ore grade for testing UIDFS (2020). Table 10-1 shows the different pilot runs carried out for the project and the source of samples.

Table 10-1 Concentrator test campaigns

Runs	Date	Sample Type	Intent	Li_2O
1 to 4	2018	RC Chips	Test conceptual flowsheet and produce spodumene concentrate samples for testing downstream unit operations	-
5	September 2018	Diamond Drillhole Core sample	Confirm flotation flowsheet presented in the PFS	1.47
6	April 2019	Diamond Drillhole Core sample	Bulk flowsheet test to test collector and improve selectivity	1.53
7	May 2019	Diamond Drillhole Core sample	Bulk flowsheet test to test collector and improve selectivity	1.41
8	September 2019	Diamond Drillhole Core sample	Bulk flowsheet test	1.46
9C	August 2020	RC Chips	Testwork for flotation (no DMS) used to calibrate the pilot scale flotation circuit prior to test 9A.	1.55
9A	September 2020	Diamond Drillhole Core sample	Confirm the value optimization flowsheet and previous testwork using ore from year one to three.	1.52
9B	September 2020	Diamond Drillhole Core sample	Samples held in reserve at mine site.	

Source: Based on UIDFS (2020)

The samples were aggregated in bulk downhole composites. The existing metallurgical samples does not capture the complete orebody, but from geologic data and drillhole reviews the pegmatite mineralogy across the deposit is similar. In the QP opinion, the metallurgical samples are representative of the first 10 years of mining and, based on the mineralogical data and geological descriptions, the metallurgical test results are indicative of the expected recoveries for the remaining SQI pegmatite identified in the deposit. The concentrator design, and the ability to blend ore from the ROM pad and the low-grade ore stockpile, is expected to allow minimization of fluctuation in feed grade, and the associated variation in lithium mass flow through the process circuit.

A summary of the testwork conducted to support the concentrator flowsheet design over the life of the Project is provided in Table 10-2. The testwork programs covered the critical design requirements for the concentrator process criteria and basis of design.

Table 10-2. Concentrator testwork summary

Objective	Provider	Description
Ore Characterization	Nagrom, ALS, among others	Mineralogy determination via XRD. Liberation assessment, Materials handling characteristics including flowability, moisture content, draw down angle, angle of repose and particle sizing
Crushing	Nagrom and reputable vendors	Preparation of bulk composites for testing. Pilot runs. HPGR operating and design parameters
Ore Classification	Nagrom	Reflux Classifier
DMS	Nagrom	Dense Media Separation Testworks at different densities
Flotation	SGS and Nagrom	Flotation testwork included batch, locked cycle flotation tests and continuous pilot plant testing and included evaluation of feed size, collector type and addition rates, the impact of conditioning and the impact of water quality.
Thickening	Reputable vendors	Dynamic thickening tests were completed on pilot plant tailings to decide thickener design parameters and engineering details
TSF	SRK	Testwork completed on coarse DMS rejects and fine blended tails to assist in design of dry stacked TSF and wet TSF.
Rheology	Specialized Third Party	Testwork completed to assist in pumping design
Spodumene concentrate characterization	Nagrom and reputable vendors	Chemical analyses, XRD, mica picking. Materials handling, including angle of repose, transportable moisture limit, moisture content

Source: Based on UIDFS (2020)

10.1.2 Testwork outcomes

The testwork confirms that it is possible to produce spodumene concentrate to technical specifications. The results of the pilot scale runs are summarized in Table 10-3.

Table 10-3. Li_2O grade and Li_2O deportment results from testwork

	Run 6A	Run 7A	Run 8AB	Run9A	Average
Recovery (%)	78	75	76.5	81.0	77.6
Concentrate Li_2O Grade (%)	5.7	5.9	5.2	5.6	5.6

Source: Based on UIDFS (2020)

The following conclusions can be drawn from the testwork:

- The testwork has confirmed that the target product quality for spodumene concentrate of 5.5 per cent Li_2O can be achieved.
- Pilot run recoveries exceeded the nominal 75 per cent target recovery with an average Li_2O recovery of 77.6 per cent reported.

The expected outputs from the concentrator are shown in Table 10-4 and are justified from the testworks executed.

Table 10-4 Concentrator outputs terms of reference

Parameter	Unit	Value
Concentrate target Li_2O Grade	% Li_2O	> 5.5
Concentrate target Fe_2O_3 Grade	%Fe_2O_3	< 1.39
Concentrate target mica content	% Mica	< 4
Concentrate target moisture content	% w/w	< 12

Source: Based on UIDFS (2020)

10.2 Refinery Testworks program

The refinery testwork program has been developed to deliver a refinery process flowsheet. The samples used for the refinery testworks are the outputs from the Concentrator testworks.

10.2.1 Testworks

Testworks done for the refinery process design area summarized in Table 10-6 in the next page.

10.2.2 Testworks Outcomes

Product specification elements considered the most challenging to control in the refinery including, Minor magnetic particles (MMP), Carbon dioxide, Silica, Sodium, Sulphate and the Particle size distribution

From the testworks results (Table 10-5), the lithium deportment analysis predicts an overall refinery recovery of 85.9 per cent, with the potential range between 82.0 and 91.5 per cent. For the valuation a recovery of 85.0 per cent has been selected.

Table 10-5. Li_2O grade and Li_2O deportment results from testwork

	Predicted from testworks	Risk weighted minimum	Risk weighted maximum
Lithium losses (%)	14.1	8.5	18.0
Recovery (%)	85.9	91.5	82.0

Source: Based on UIDFS (2020)

Table 10-6 Testwork summary supporting the refinery unit operations

Objective	Provider	Description
Spodumene handling	Nagrom, ALS, among others	Mineralogy determination via XRD. Chemical analysis of test products. Preparation of bulk composites to provide an appropriate feed for testing, Materials handling characteristics including flowability, moisture content, draw down angle, angle of repose and particle sizing
Kiln, Cooling and Roasting	Nagrom, SGS, and other reputable vendors.	Conversion from alpha to beta-spodumene. Calcination parameters effect on conversion (temperature and time). Processing of materials for downstream testing. Roasting parameters effect on conversion (temperature, time, grind size acid excess). Process of material for downstream testing
Ball Mill	SGS and vendors	Bond ball work indices. Abrasion index
Leaching	Nagrom, SGS , SQM and vendors	Leaching parameter effect on elemental recovery for lithium and impurities (pH, residence time, lithium tenor). Alternative reagent suites effects. Oxidization testwork. Direct leaching testing. Pilot testing
Impurity Removal	Nagrom and various reputable vendors.	Filtration testing, wash efficiency through lithium recovery. Bench scale filtration testing for efficacy and efficiency. (Filtration rates, solid moisture content, suspended solids in filtrate). Wash efficiency of lithium and trace elements. Equilibrium characterization for impurities, residence time and kinetics study. Reagent suite optimization. Filter aid composition effect in impurity profile of filtrate.
DBS	QUBE, SQM and other consultants	Bulk handling properties including flowability, moisture content, draw down angle, angle of repose, particle size.
Glauber Salt / Crystallization	Nagrom, Veolia, among others	Equilibrium curve characterization. Initial SSA samples production for characterization. Pilot testing. Chemical equilibrium definition. Wash efficiency testing. Energy requirement testing. Impurity testing. Confirmation of recycle flows and bleed rates
LiOH	SQM and reputable vendors.	Pilot testing. Chemical equilibrium definition. Recirculation streams estimation. Wash efficiency testing. Energy requirements testing. Drying testing for equipment design. Evaluation on CO_2 and MMP in final product.
Bagging, storage and handling of LiOH	Reputable vendores	Impact of compaction on agglomeration. Measurement of agglomeration based on cohesive strength. Dehydration isotherms for LiOH. Simulation of dynamics of moisture migration during storage and transport to define parameters that minimize product caking.

Source: Modified on UIDFS (2020)

10.3 QP's Opinion

In the QP's opinion, the physical, chemical, and metallurgical tests carried out to date by Covalent have been adequate to establish a suitable process to produce spodumene concentrate and lithium hydroxide.

In the QP's opinion, the samples used to generate the metallurgical data have been representative and support estimates of future performance. The data derived from the testing activities described above are suitable for the purposes of estimating mineral resources and reserves.

11 MINERAL RESOURCE ESTIMATE

11.1 Geological Interpretation

Surface diamond and reverse circulation (RC) drillholes have been logged for lithology, structure, alteration, and mineralisation data by Kidman Resources and Covalent geologist since 2016. Pegmatite lithology wireframes were produced as a vein system in Leapfrog using geochemical criteria; SiO_2 > 70% and Fe_2O_3 < 3%. These were validated against lithological logging data, and structural data from diamond core. The pegmatite mineralogy wireframes were produced in Leapfrog from both XRD analyses, and visual mineralogical logs in diamond core. Weathering surfaces have been generated in Leapfrog from geological logging data.

Due to the consistent nature of the pegmatite identified in the area, no alternative interpretations have been considered. The Li_2O % mineralisation interpretation is contained wholly within the pegmatite geological unit.

The pegmatites are found to be variable in strike and dip extent over the length of the deposit, and of variable thickness. They are intersected and offset by two major shear zones. Li_2O % mineralisation within the fresh pegmatite is zoned, and primarily controlled by the dominant mineralogy; spodumene and petalite dominated assemblages are enriched compared to altered (cookeite) and Li-absent assemblages. Li_2O % mineralisation is depleted in weathered pegmatite.

The result of the modelling is that Earl Grey pegmatites strike northeast-southwest over a length of 1,300 m, and dip northwest at around 10° over 2,100 m. Several hanging wall pegmatites outcrop at surface. The main pegmatite displays geological continuity to 300 m depth from surface at the northern end of the deposit, while the hanging wall and footwall pegmatites are of shorter range and less continuous. The main pegmatite body varies in thickness from 15m to 90 m over the length of the deposit.

11.2 Estimation Technique

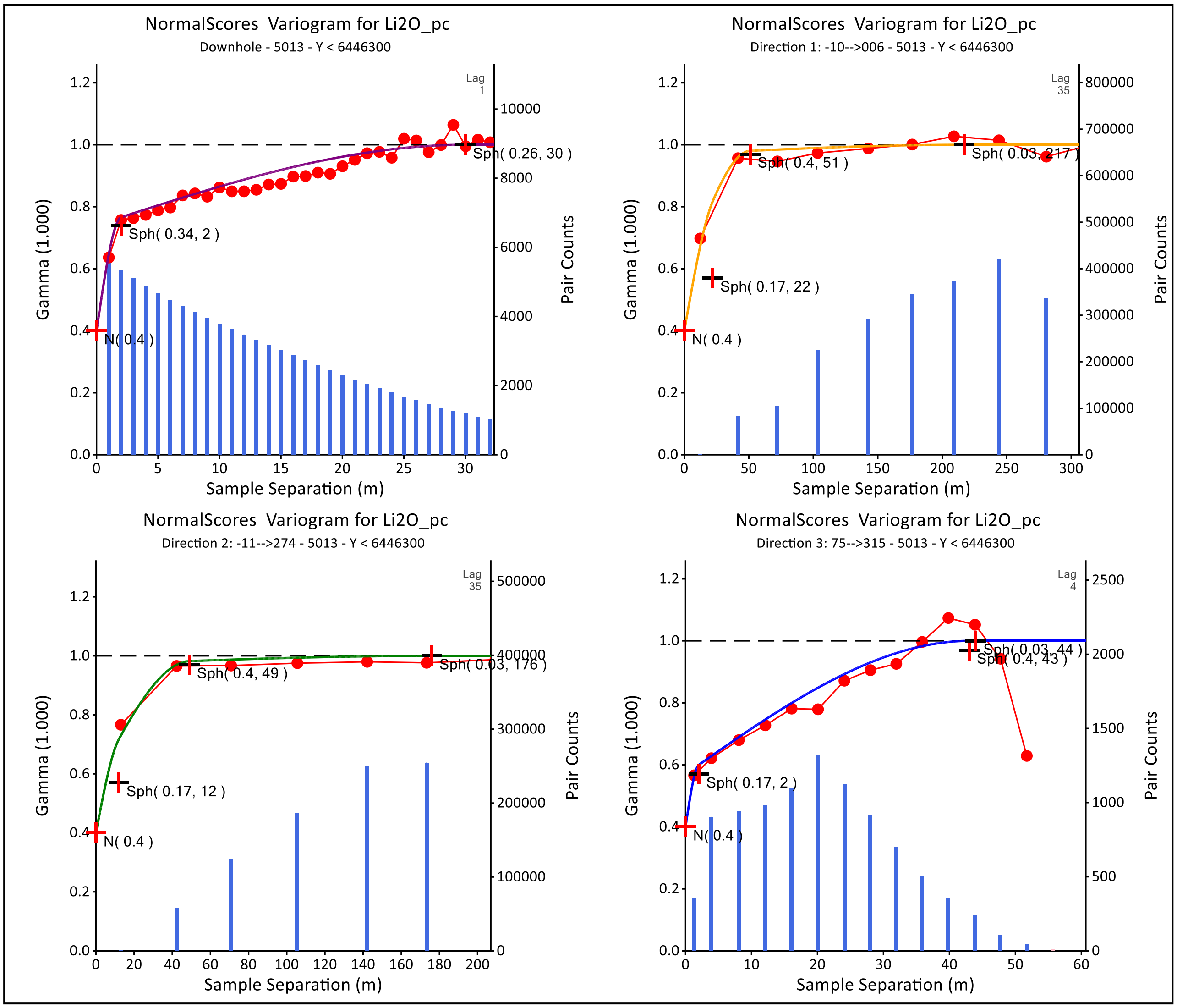
Compositing has been undertaken separately on each variable within domain boundaries at 1m with a variable length of up to 1.5m. Top cut were applied in domains with outlier values.

The influence of extreme assays has been reduced by top-cutting where required. The top-cut thresholds have been determined using a combination of histograms, log probability and mean variance plots. Top cuts have been reviewed and applied to the composites on a domain-by-domain basis. No top-cuts have been applied to Li_2O% or Fe_2O_3% within the fresh pegmatite domains. Top-cuts were applied only in Fresh pegmatite for Ta ppm, CaO% and MgO%.

Grade estimation of Li_2O%, Fe_2O_3%, Ta ppm, Na ppm, MgO%, K_2O%, SiO_2%, Al_2O_3%, Rb ppm, CaO% has been completed using Ordinary Kriging (OK) and, where appropriate, Inverse Distance squared (ID2) into 70 fresh pegmatite domains. Fe_2O_3% and S ppm have been estimated into 14 waste domains using OK (Ordinary Kriging).

Variography has been completed in Supervisor v 8.13 software on a mineralogical domain basis where enough data is present. Domains with too few samples have grouped or borrowed variography. For example, Variograms of the domain 5013 (Fresh SQI at Main Body pegmatite) is presented in Figure 11-1.

Figure 11-1 SQI Main domain 5013 Li_2O% variography



The Mineral Resource estimate has been validated using visual validation tools, mean grade comparisons between the block model and composite grade means and swath plots comparing the composite grades and block model grades by Northing, Easting and RL. · No assumptions have been made regarding recovery of any by-products.

The drillhole data spacing is typically 25 by 25 out to 50 m by 50 m with areas of extensional drilling at 100 m by 100 m in the down-dip and strike extents.

The block model parent block size is 20 m (X) by 20 m (Y) by 2.5 m (Z), however an area containing the 25 m by 25 m drilling has a parent block size of 10 m (X) by 10 m (Y) by 2.5 m (Z). A sub-block size of 5 m (X) by 5 m (Y) by 0.625 m (Z) has been used to define the mineralization edges, with the estimation undertaken at the parent block scale.

- Pass 1 estimations have been undertaken using a minimum of 6 and a maximum of 14 samples into a search ellipse diameter defined as one quarter of the variogram range in the major and semi-major directions. The minor direction has been set to 20m diameter. A sample per drillhole limit of 4 samples/drillhole has been applied in all domains on all passes.
- Pass 2 estimations have been undertaken using a minimum of 4 and a maximum of 14 samples into a search ellipse defined as twice the first pass.
- Pass 3 estimations have been undertaken using a minimum of 2 and a maximum of 14 samples into a search ellipse defined as twice the second pass.
- Pass 4 estimations have been undertaken using a minimum of 1 and a maximum of 14 samples into a search ellipse defined as twice the third pass.

The search ellipses and variography rotations applied during the estimation of all domain blocks have been determined using the midline surface of each pegmatite within the dynamic anisotropy function in Datamine.

No selective mining units are assumed in this estimate. No correlation between variables has been assumed.

The pegmatite, mineralogy and weathering wireframes generated within Leapfrog have been used to define the domain codes by concatenating the three codes into one. The drillholes have been flagged with the domain code and composited using the domain code to segregate the data. Hard boundaries have been used at all domain boundaries (Mining Plus Pty Ltd, 2021).

11.3 Density

Bulk density values have been calculated from 5,798 measurements collected on-site using the water immersion method (Table 11-1). Data has been separated into lithological/weathering datasets in the waste and mineralogical/weathering datasets in the pegmatites; and mean density values derived. Densities have been assigned several material types and to the waste dump fill material due to a lack of density data.

The selection of bulk density samples is determined by the logging geologist and is undertaken in a manner to determine the density of all material types. The diamond drill core is competent and does not display evidence of voids. Density has been assigned to the waste dump fill material. The densities applied are considered appropriate for this material.

Table 11-1 Density Measurements

	Oxide		Transitional		Fresh	
Lithology by Weathering	Number of samples	Density	Number of	Density	Number	Density
Komatiitic Basalt	10	2.1	64	2.85	344	2.9
Komatiite	46	2.8	45	2.6	486	2.95
Andesite	15	1.95	45	2.8	292	2.9
High Mag Basalt	140	1.8	254	2.75	1,105	2.95
Sediments	*nil - assigned*	*1.8*	6	2.8	132	2.95
BIF	*nil - assigned*	*2.2*	6	2.8	83	3.0
Internal Waste	1	1.8	4	2.85	46	2.9
Dolerite	*nil - assigned*	*2*	*nil - assigned*	2.8	38	2.95
	Oxide		Transitional		Fresh	
Lithology by Weathering and Mineralogy	Number of samples	Density	Number of samples	Density	Number of samples	Density
Pegmatite - SQI	35	2.2	117	2.6	1,360	2.7
Pegmatite - Mixed	1	1.7	9	2.5	200	2.6
Pegmatite - Petalite	*nil - assigned*	*2.0*	*nil - assigned*	2.5	571	2.6
Pegmatite - Mixed Eastern	*nil - assigned*	*2.0*	12	2.6	192	2.6
Pegmatite - Alteration	*nil - assigned*	*2.0*	2	2.6	92	2.6
Pegmatite - Albite	1	2.0	*nil - assigned*	2.5	44	2.6

11.4 Model Validation

Final grade estimates have been validated by statistical analysis and visual comparison to the input drillhole composite data

11.4.1 Global Comparisons

A domain-by-domain comparison between the composites and the output block model grades for passes 1-3 for each variable has been completed. To accurately decluster the input data a nearest neighbour (NN) estimation using block-height composite data has been completed. Table 11-2 contains the largest ten domains by number of informing composites, representing approximately 75% of estimated tonnes, for Li_2O%, Fe_2O_3% and Ta ppm. Generally, where there are sufficient data, block grades are within error (+/- 10%) of the input composite grade.

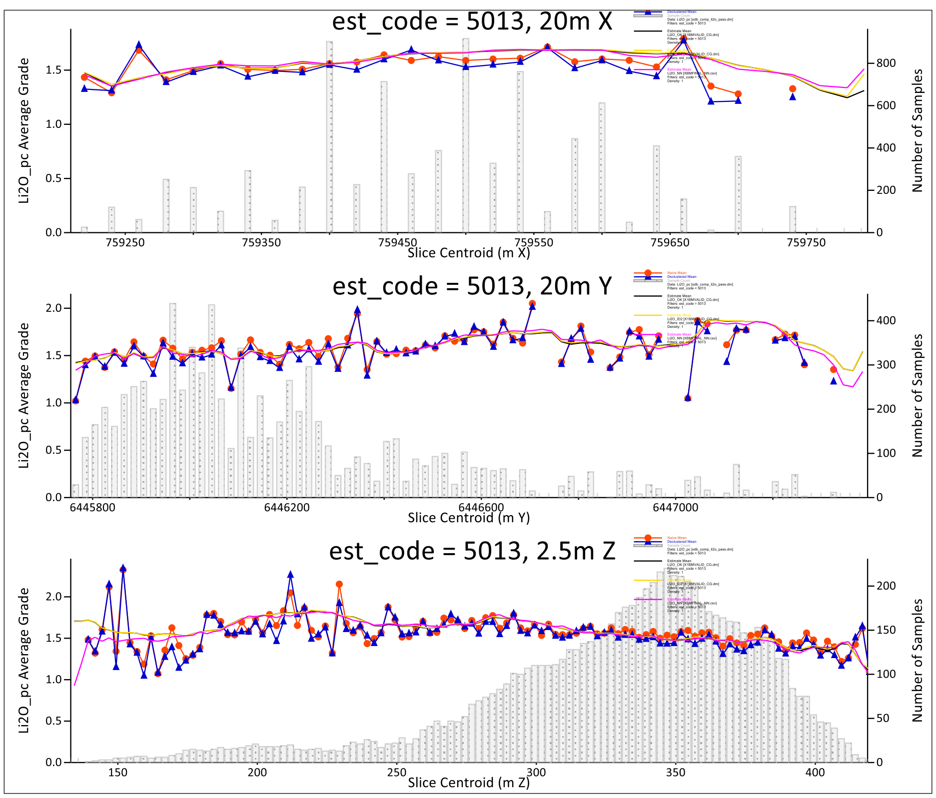
11.4.2 Swath Plots

Representative sectional validation graphs ('swath plots') have been created to compare the estimated grades (black line – Ordinary Kriging, yellow line – ID^2, pink line – nearest neighbour) to the mean of the clustered (red line) and declustered (blue line) input grades within model slices (bins) on Easting, Northing and Reduced Level (RL) for the largest domain in each area. The graphs also show the number of input composites on the right axis, thereby giving an indication of the data support within each bin. The largest domain by tonnage and number of composites, domain 5013, validates within 1% globally and swath plots in Figure 11-2, indicate that the estimated block grades are close to the input composite grades, particularly in areas of high data density.

Table 11-2 Global Comparison of Li_2O and Fe_2O_3.

		Grade Validation Li_2O%					Grade Validation Fe_2O_3%				
Domain	Estimated Tonnage	Estimated Grade	No. of Comps	Comp Grade	NN est.	% Diff Est Grade vs NN est.	Estimated Grade	No. of Comps	Comp Grade	NN est.	% Diff Est Grade vs NN est.
5013	62,359,664	1.63	8,125	1.56	1.62	1%	1.07	8,124	1.13	1.07	0%
2033	52,819,609	1.55	2,185	1.58	1.53	1%	0.96	2,185	0.94	0.96	0%
5053	3,316,584	0.64	911	0.61	0.64	0%	1.11	911	1.1	1.08	3%
6213	1,503,563	1.44	907	1.48	1.46	-1%	1.16	906	1.16	1.16	0%
6313	2,105,325	1.35	819	1.39	1.33	2%	1.33	807	1.33	1.31	2%
6413	16,048,420	1.37	744	1.45	1.4	-2%	1.13	744	1.14	1.11	1%
2023	5,369,650	1.74	630	1.75	1.72	1%	1	630	1.02	1	0%
3333	4,064,206	1.5	595	1.48	1.5	0%	1.21	595	1.21	1.18	3%
4413	3,299,948	1.51	509	1.42	1.52	-1%	1.37	509	1.39	1.37	0%
4513	4,453,186	1.56	431	1.49	1.56	0%	1.38	430	1.45	1.39	-1%

Figure 11-2 Swath plots of Domain 5013



11.5 Uncertainty

Table 11-1 shows the main sources of uncertainty and a discussion of their impact and possible control measures.

Table 11-3 Sources of Uncertainty

Uncertainty Source	Discussion
Drilling techniques, drill sample and recovery	Majority of drilling is based on Reverse Circulation holes. When are compared assays obtained from RC holes and DDH holes, Lithium Grades are similar, but it is noted a higher iron content in RC samples. This bias is considered a potential upside for the project.
Logging	Geologic logs in the database have sufficient information to enable interpretations of pegmatites continuity and orientation. Loggin procedures are clear and have been used systematically since 2016. Reverse circulation chips are logged every one meter. The QP's opinion is that this detail is sufficient for a long-term planning.
Sampling techniques and QAQC procedures	The sampling techniques are documented, and procedures are followed by the personal. QAQC reports confirms that protocols are followed, and laboratories provides acceptable levels of precision and accuracy.
Location of data points	Collar and downhole surveys are reliable. This allows to model pegmatite intercepts with high degree of spatial accuracy.
Data spacing and distribution	Pegmatite geometry is well understood based on extensive drilling at sufficient spacing to provide multiple points of observation.
Geologic Modelling	The top 10 geologic units in volume are well understood and with sufficient data to support the wireframe building. Minor pegmatite bodies, related to hanging wall dykes have more uncertainty in comparison to larger units and is related to thickness and the contact location pegmatite and waste. However, recent Grade Control Drilling programs confirm the continuity of the units, and this risk could be handled at long term.
Estimation	The validation exercises considers that the estimation is robust for a long-term planning.
Mineralogy	Mineralogy studies are focus in the starter pit area. Drillhole logging and XRD analysis suggest that are clearly identified mineralogic zones that should be used for long-term planning.

The geological interpretation and estimation are considered robust due to the nature of the geology and mineralization. The QP's opinion is that the different uncertainty sources are assessed in the resource classification described below and it is adequate to use the resource model for a long-term planning.

11.6 Resource Classification Criteria

The classification of Mineral Resources for the Earl Grey Deposit has been completed in accordance with the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" issued by the JORC of the AusIMM, AIG and MCA and updated in December 2012, (JORC., 2012)) and the SEC regulations S-K 1300. The major classifications and terminologies have been adhered to. All directions and recommendations have been followed, in keeping with the spirit of the code. The categories of Mineral Resource as outlined by the code are as follows:

- Measured – Tonnage, densities, shape, physical characteristics, grade, and mineral content can be estimated with a high level of confidence.
- Indicated – Tonnage, densities, shape, physical characteristics, grade, and mineral content can be estimated with a reasonable level of confidence.
- Inferred – Tonnage, grade, and mineral content can be estimated with a reduced level of confidence.

The methodology is based on the following aspects:

1) Information density: There are areas with high information density in the deposit (mesh <50 m), where category should reflect this effect.
2) Uncertainty in the geological model: The geological model of pegmatite and mineral zones has a component related to the criteria used by the geologist when modeling. This criterion is exposed when the different simulation scenarios of the geological bodies are quantified. One measure of ensuring geological modeling in the category is to include conditions over the average values of geology simulations.
3) Operational uncertainty: In zones of high information density and massive pegmatite there is a high probability that the pegmatite body exists. But the grades have different behaviors inside due to local geological differences. This is reflected in the simulations of Li_2O percentage grades; however, the performance of resource predictions will be evaluated at the temporal level of months or quarters. Therefore, uncertainty is considered in terms of temporary volumes for the resource's categorization effects.

The resource classification has been applied to the MRE based on the input data confidence, data spacing and geological continuity. As an initial step, a confidence category has been assigned on a block-by-block basis based on the following criteria:

- The mineralization at Earl Grey estimated in the first or second pass, with a slope of regression above 0.75 or an average distance to three drillholes of less than 40 m have been assigned a high level of confidence.
- The mineralization at Earl Grey that has been estimated in the second or third pass, have been assigned a reasonable level of confidence.

Blocks have been displayed by confidence category, which has then been used as a guide to digitize strings and that smooth out the block-by-block categories into contiguous, practical shapes. The Measured Mineral Resource has been informed by the blocks with a high level of confidence. The Indicated Mineral Resource has been informed by the blocks with a reasonable level of confidence, while the Inferred Mineral Resource has been informed by the blocks with a reduced level of confidence. All blocks within the Measured and Indicated Mineral Resource that have received an assigned Li_2O grade have been reclassified as inferred resource. The classification reflects the view of the Competent Person

11.7 Reasonable prospect for eventual economic extraction

A whittle pit optimization has been run to generate a pit shell wireframe for reporting purposes. The mining assumptions/parameters used are listed in Table 11-4. To estimate the economic extraction, it was selected as end product the spodumene concentrate at 6%, which is a standard in the lithium industry.

Table 11-4 Mineral Resource factors for eventual economic extraction

Factor	Unit of Measurement	Value
Mining Dilution	(%)	5
Mining Recovery	(%)	95
Mining cost per bcm of Rock	(AU$/bcm)	18.60
Process Cost per tonne	(AU$/t)	65.27
Concentrator Recovery	(%)	75
Li_2O Price Concentrate	US$/t SC 6.0 FOB	800
	AU$/%$Li_2O$	177.78
Foreign exchange US$:AU$	(:1)	0.75
Royalty	(%)	5
Selling Cost	AU$/t conc	NA

The dilution and mining recovery utilized in the open pit optimizations are 5% and 95%, respectively. The optimizations utilized a final processing recovery of 75% for all material.

11.8 Cut-off Grade

Based on a price of US$800[4] FOB per tonne of Spodumene concentrate at 6%, a cut-off grade of 0.5% Li_2O has been used to define the Resource Pit.

11.9 Mineral Resource Statement

Mineral resource for the Project, representing in-situ lithium bearing pegmatites are reported below in accordance with SEC Regulation S-K 1300 standards and are therefore suitable for public release. The current Mineral Resource for the Earl Grey Deposit, contained within the pit shell has been reported at a cut-off of 0.5 Li_2O% and is detailed in Table 11-5 and Table 11-6.

11.9.1 Resource Inclusive of Mineral Reserves

Table 11-5 shows the resource estimation inclusive of mineral reserve.

[4] The project was evaluated with a price of US$800 per tonne of spodumene, equivalent to the sale price of US$11,000 per tonne of lithium hydroxide.

Table 11-5. October 2021 Mineral Resource Estimate Inclusive of Mineral Reserves for the Earl Grey Deposit

Classification	Cut-off Grade (% Li_2O)	Kilotonnes (kt)	SQM Attributable tonnes	Li_2O%	Fe_2O_3%	Ta ppm
Measured	0.5	71,000	35,500	1.57	1.17	56
Indicated	0.5	107,000	53,500	1.51	1.02	45
Measured + Indicated	0.5	178,000	89,000	1.54	1.08	50
Inferred	0.5	8,000	4,000	1.44	1.30	47
Total	0.5	186,000	93,000	1.53	1.09	49

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral resources are **reported inclusive of mineral reserves**. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- Resources have been reported as in situ (hard rock within optimized pit shell).
- Resources have been categorized subject to the opinion of a QP based on the amount/robustness of informing data for the estimate and consistency of geological/grade distribution.
- Resources which are contained within the mineral resource pit design may be excluded from reserves due to an Inferred classification. They are disclosed separately from the resources contained within the Resource Pit.
- There is reasonable expectation that some Inferred resources within the mineral reserve pit design may be converted to higher confidence materials with additional drilling and exploration effort.
- Mineral resources are reported considering a nominal set of assumptions for reporting purposes:
- Pit optimization and economics for derivation of CoG include mine gate pricing of US$800/t of 6% Li_2O concentrate, AU$19/bcm mining cost (LoM average cost-variable by depth), AU$65/t processing cost. Mining dilution set at 5% and recovery at 95%. Royalty fees 5%. The recovery considered for the concentrator is 75%.
- Costs estimated in Australian Dollars were converted to US Dollars based on an exchange rate of 0.75US$:1.00AU$.
- These economics define a cut-off grade of 0.50% Li_2O.
- The slope angles vary from 40 degrees for oxide material to 45 degrees for fresh material.
- Resources were reported above this 0.5% Li_2O cut-off grade and are constrained by an optimized break-even pit shell.
- No infrastructure movement capital costs have been added to the optimization.
- Mineral resources tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Kerry Griffin is the QP responsible for the mineral resource estimate with an effective date: October 6, 2021.

11.9.2 Resource Exclusive of Mineral Reserve

Table 11-6 shows the resource estimation inclusive of mineral reserve.

Table 11-6. October 2021 Mineral Resource Estimate Exclusive of Mineral Reserves for the Earl Grey Deposit

Classification	Cut-off Grade (% Li_2O)	Kilotonnes (kt)	SQM Attributable tonnes	Li_2O%	Fe_2O_3%	Ta ppm
Measured	0.5	27,000	13,500	1.58	1.05	55
Indicated	0.5	61,000	30,500	1.45	1.04	43
Measured + Indicated	0.5	88,000	44,000	1.49	1.04	47
Inferred	0.5	7,000	3,500	1.38	1.35	47
Total	0.5	95,000	47,500	1.48	1.06	47

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral resources are reported is exclusive of mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- Resources have been reported as in situ (hard rock within optimized pit shell).
- Resources have been categorized subject to the opinion of a QP based on the amount/robustness of informing data for the estimate and consistency of geological/grade distribution.
- Resources which are contained within the mineral resource pit design may be excluded from reserves due to an Inferred classification. They are disclosed separately from the resources contained within the Resource Pit.
- There is reasonable expectation that some Inferred resources within the mineral reserve pit design may be converted to higher confidence materials with additional drilling and exploration effort.
- Mineral resources are reported considering a nominal set of assumptions for reporting purposes:
- Pit optimization and economics for derivation of CoG include mine gate pricing of US$800/t of 6% Li_2O concentrate, AU$19/bcm mining cost (LoM average cost-variable by depth), US$65/t processing cost. Mining dilution set at 5% and recovery at 95%. Royalty fees 5%. The optimisation considered for the concentrator is 75%. Costs estimated in Australian Dollars were converted to US Dollars based on an exchange rate of 0.75US$:1.00AU$.
- These economics define a cut-off grade of 0.50% Li_2O.
- The slope angles vary from 40 degrees for oxide material to 45 degrees for fresh material.
- Resources were reported above this 0.5% Li_2O cut-off grade and are constrained by an optimized break-even pit shell.
- No infrastructure movement capital costs have been added to the optimization.
- Mineral resources tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Kerry Griffin is the QP responsible for the mineral resource estimate with an effective date: October 6, 2021.

11.10 Relevant factors that may affect the mineral resource estimate

The Mt. Holland project is subject to factors that may affect this resource estimate:

- Changes in metals pricing can affect the cutoff grade and thus the quantity of estimated resource.
- Changes in assumed operating costs affect the cutoff grade and thus the quantity of estimated resource.
- Changes to the tonnage and grade estimates may vary because of more drilling, new assays, and tonnage factor information.
- Changes in recovery assumptions may change the quantity of the estimated resource

11.11 Responsible Person Opinion

To the QP's knowledge, at the time of estimation there are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that could materially impact on the eventual extraction of the mineral resource.

The QP recommends that the following work be undertaken:

1) Generate a pegmatite model in Leapfrog Geo using indicators and the intrusion modelling tool followed, and
2) Create Li2O% indicator grade shells within the modelled pegmatite, to test if this methodology will generate both high and low-grade Li_2O% domain wireframes.

The QP considers that where data density is sufficient, the pegmatite mineralization may be modelled as a broad anastomosing body rather than a set of discreet veins. Modelling in this manner may significantly decrease the complexity of the estimation. The use of indicator grade shells within the pegmatite may better represent local high and low-grade zonation. These two factors may be useful in future grade control modelling. The QP recommends this work be undertaken as part of future grade control updates in parallel to the MRE method and results compared.

12 MINERAL RESERVE ESTIMATE

12.1 Basis for Estimate

The Mineral Reserve estimate includes the portion of the Measured and Indicated Resource that can be mined economically. Economic criteria and mining constraints (based on the selected mining methods) are applied to the Resource blocks to define mineable blocks. Mineral Reserves are determined after applying dilution and recovery factors to these mineable blocks.

The Mineral Reserve presented has been calculated from the mine plan created from the October 2021 Resource update. Geological domains wireframing are defined by mineralization style and based on 0.5% Li_2O. The basis of cut-off grade is the application of modifying factors to Spodumene Quartz Intergrowth (SQI) mineralization. The cut-off grade of 0.5% Li_2O is based on the parameters used within the pit optimisation. Inferred Resource within the Life of Mine pit has been treated as waste for the purpose of the Ore Reserves.

This resource block model was regularised to include ore loss and dilution and then coded with mining costs, processing costs, geotechnical zones, and the definition of ore for use in optimisation, pit design and production scheduling. The Pit Optimisation was based on the Lerchs-Grossman algorithms implemented on Whittle.

The mining method is open pit, drill and blast truck and excavator. The mining of ore is required to be selective, reflecting the shallow dipping nature of the deposit. The mining fleet is required to be mobile and hence planned to be diesel hydraulic. The supporting infrastructure of workshops and diesel storage and hydrocarbon storage and control have been allocated in the study.

Mining is planned to commence from the south and progress north in strips of nominal 100m width. The mining fleet is planned around 100-200 tonne excavators and 100-150 tonne haul trucks. The ramps are nominally 30m wide and 10% gradient, which suit the planned fleet types.

Mining is planned to allow back filling of the pit over the Life of the Mine. Mining Dilution has been calculated through the utilization of a regularized model, with 5m x 5m x 2.5m block sizes. Additionally, mining recovery of 98% of the diluted Spodumene Quartz Intergrowth mineralization has been used. Mining recovery of other pegmatite has been recovered as mineralized waste and will be used as erosion protection on the waste landforms. Dispersive wastes will be encapsulated within the waste landforms. Asbestiform wastes will encapsulate the dispersive waste and will in turn be encapsulated within the waste landforms by the mineralized waste.

The mining method used for the project is conventional open pit, drill blast, truck and excavator and selective ore mining. Geotechnical specifications are provided by expert consultant (Peter O'Bryan and Associates), with reference to site visit, core logging, rock property testing and assessment. Pit wall parameters and inter-ramp wall angles reflect the weathering states. Pit wall designs include widening berms for geotechnical considerations every 80m vertically in fresh rock. The pit wall designs assume the pit walls are largely depressurised.

The metallurgical recovery is planned to use crushers, classifying, reflux classifiers and dense media separation, then milling, desliming, magnetic separator and flotation to produce a mineral concentrate to match current testwork. Concentrate will be treated through calcination, acid roast, purification, Glauber salt and two-stage lithium crystallization to produce battery grade lithium hydroxide.

Metallurgical processes are designed for nominal 2Mtpa ore feed. Process recovery to concentrate is estimated at 75% for Li_2O for predominantly Spodumene Mineralisation and 0% for other mineralization types. Refinery process recovery is estimated at 85%. Tantalum recovery is estimated at 0%. For Concentrate sales the expectation from test work is the production of fine-grained concentrate above 5.5% Li_2O.

12.2 Mineral Reserves and Basis for Estimate

The mine planning considers the Concentrator feeding the Refinery. The Concentrator feeding the Refinery presents 83.9 Mt of direct feed ore at a grade of 1.57% Li_2O and 1.24% Fe_2O_3. There was 7.3 Mt of mineralisation flagged as potentially amenable to sorting processes (classed as waste) and an additional 419.9 Mt of waste. A total of 427.1 Mt of waste material is contained within the Ultimate Pit which provides a 50-year life of mine. Ore Reserves are classified from Mineral Resources, Measured to Proven, Indicated to Probable with the application of appropriate modifying factors. However, the Measured Resource that falls outside the first 10 years has been considered as Probable.

A summary of the tonnes and grade within the Ultimate Pit is presented in Table 12-1. A sorting scenario did provide access to additional 7.3 Mt of 'ore' and its subsequent cashflow. However, the quality of the input parameters was deemed to be at scoping level and as such not suitable to support an Ore Reserve at the current level of development. The material flagged as potentially viable for sorting was stockpiled separately.

Table 12-1 Ultimate Pit tonnes and grade

Material Type	Quantity (Mt)	Li_2O (%)	Fe_2O_3 (%)
Ore	83.9	1.57	1.24
Waste	427.1	n/a	n/a
Total Material	511.0	n/a	n/a

The proportion of Measured and Indicated mineralisation within the Ultimate Pit is presented in Table 12-2. There is also approximately 1 Mt of Inferred mineralisation (reported as waste) in the production schedule, that presents late in the mine life.

However, current approvals continue to indicate a portion of the Measured material is mined beyond the UIDFS 10-year mine approval boundary. The material classified as Measured within the 10-year pit boundary is considered "Proven", whilst the Measured outside the UIDFS 10-year boundary will be considered as "Probable" in line with the 2018 Ore Reserves, see Table 12-3. No objects to future approvals are expected.

Table 12-2 Feed by mineralisation classification

Mineral Resource category	Quantity (Mt)	Li_2O (%)	Fe_2O_3 (%)
Measured	40.0	1.54	1.39
Indicated	43.9	1.59	1.10
Total	83.9	1.57	1.24

Mineral reserve for the Project, representing in-situ lithium bearing pegmatites are reported below in accordance with SEC Regulation S-K 1300 standards and are therefore suitable for public release. The reserves are reported above a cut-off grade of 0.5% Li_2O based on an assumed Lithium Hydroxide Selling price of US$11,000/t FOB and a total operating cost of US$4,979 for LiOH production was considered for the reserve evaluation. Such price assumption was used for the purpose of evaluating the robustness and economic viability of the Project and does not represent a view of, and may differ from those used by, any of the joint venturers for their own valuation or commercial strategies in relation to the Project. No by-product extraction is considered in the reserve estimation.

Table 12-3 Ore Reserve category

Ore Reserve Category	Quantity (Mt)	SQM Attributable (Mt)	Li_2O (%)	Fe_2O_3 (%)
Proven	21.5	10.8	1.48	1.36
Probable	62.4	31.2	1.60	1.19
Total	83.9	42.0	1.57	1.24

- The SQM attributable portion of mineral resources and reserves is 50%.
- Mineral reserves are reported exclusive of mineral resources.
- Indicated in situ resources have been converted to Probable reserves.
- Measured have been converted to Probable mineral reserves. Measured outside the UIDFS 10-year boundary will be considered as "Probable" in line with the 2018 Ore Reserves
- Mineral reserves are reported considering a nominal set of assumptions for reporting purposes:
- Mining Dilution has been calculated through the utilization of a regularized model, with 5m x 5m x 2.5m block sizes. Additionally, mining recovery of 98% of the diluted Spodumene Quartz Intergrowth mineralization has been used.
- Metallurgical processes are designed for nominal 2Mtpa ore feed. • Process recovery to concentrate is estimated at 75% for Li_2O for predominantly Spodumene Mineralisation and 0% for other mineralization types. Refinery process recovery is estimated at 85%. Tantalum recovery is estimated at 0%. A total operating cost of US$4,979 for LiOH production was considered for the reserve evaluation.
- Costs estimated in Australian Dollars were converted to US Dollars based on an exchange rate of 0.75US$:1.00AU$.
- The price, cost, and mass yield parameters, along with the internal constraints of the current operations, result in a mineral reserves CoG of 0.5% Li_2O based on an assumed selling Lithium

Hydroxide price of US$11,000/t FOB. Such price assumption was used for the purpose of the reserve estimation and does not represent a view or consensus of forward-looking prices by any of the joint venturers.

- Waste tonnage within the reserve pit is 427.1 Mt.
- Mineral reserve tonnage and grade have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding
- David Billington is responsible for the mineral reserves with an effective date: December 15, 2021

12.3 Relevant factors that may affect the mineral reserve

The Qualified Person has identified the following risk related to the modifying factors:

- Product sales prices: the price of Lithium Hydroxide is forecast based on predicted supply and demand changes for the lithium market overall. There is considerable uncertainty about how future supply and demand will change which will materially impact future Lithium Hydroxide prices. The reserve estimate is sensitive to the potential significant changes in revenue associated with changes in Lithium Hydroxide prices.

- Mining dilution and mining recoveries: The level of ore loss and dilution applied to the production schedule assumes a very selective mining method on the ore/waste contact. If the planned level of selectivity cannot be achieved there will be either higher ore loss and/or an increase in the Fe_2O_3 concentration due to dilution. This would potentially introduce more waste into the plant feed, which would decrease the feed grade, slow down the throughput and reduce the metallurgical recovery.

- Impact of currency exchange rates on production cost: costs are modeled in Australian dollars (AU$) and converted to US$ within the cash flow model.

- Processing plant and refinery yields: The forecast assumes that the concentrator and refinery will be fully operational and that the estimated yield assumptions are achieved. If one or more of the plants does not operate in the future, the cost structure of the operation will increase. If the targeted yield is not achieved, concentrate production will be lower. Both outcomes would adversely impact the mineral reserves.

12.4 Responsible Person Opinion

To the QP's knowledge, at the time of estimation there are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that could materially impact on the eventual extraction of the mineral reserve (Covalent, 2021). The QP recognized that further approvals are required to mine beyond the 10 years to the full Life of Mine of the Ore Reserves. It is anticipated that all impacts of the Life of Mine project beyond the first 10 years can be readily managed and offset as required.

Modifying factors have been applied reflecting designed practice and costs and metallurgical test work both in terms of operating and capital cost and metallurgical recovery.

Designed mining and grade control practices will be implemented to reflect the nature of geological setting and the intended use of Li_2O concentrate as feedstock for a refinery to produce Lithium Hydroxide for battery feedstock. Stockpiles have been included based on their tonnes and grades, physical properties, and mineralogical composition. Grade control drill has been completed for the first stage of mining.

The Ore Reserves Estimate is in line with previous Ore Reserves for the Project (2018), except for the material that would benefit from pre-treatment with optical sorting that was previously included, this material has removed from the Ore Reserve till confidence in the metallurgical yield and cost estimates has improved.

Based on the data review, the attendant work done to verify the data integrity and the different works supervised by the QP, David Billington believes this is a fair and accurate representation of the reserves in the Mt. Holland project.

13 MINING METHODS

13.1 Mining Methodology

Mining of the Earl Grey Deposit at Mount Holland will utilize conventional open pit mining methods in consideration of the pegmatite body geometry and economic factors. The operation will be serviced by contractor-owned and operated drill & blast, as well as load & haul equipment. Mining equipment will include excavators, haul trucks, drilling rigs and ancillary equipment including dozers, water trucks, service trucks and graders.

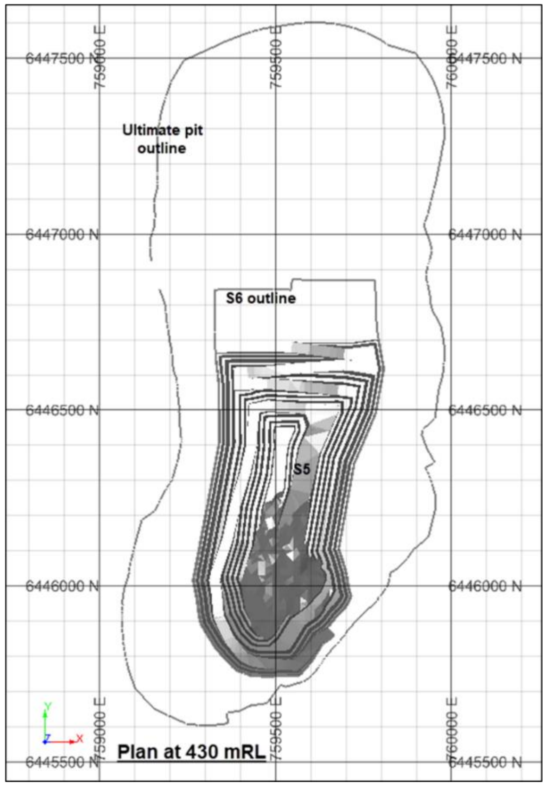
Material movement initiated in February of 2022 by removal and stockpiling of topsoil, followed by pre-stripping of waste to provide access to the first ore.

The deposit geometry presents relatively large bulk areas of both ore and waste; however, the ore/waste contact is to be mined as cleanly as possible to prevent ore loss and dilution of the ore with the high Fe_2O_3 waste. It is anticipated that precision drill and blast techniques will be employed on these ore/waste contacts, with dozers cutting to visual ore/waste contacts. Based on ore grade, excavated material will be hauled from the pit to specific locations, as follows:

- Ore which meets or surpasses the Li_2O cutoff grade (high-grade ore) will be hauled to the ROM pad.
- Ore below the Li_2O grade blending specifications, will be moved to the low-grade ore stockpile.
- Mixed material, derived from the ore/waste contact zone will be stored at the sorting stockpile for processing at the end of the operational life of the mining operation.
- Storage of high-grade ore on the ROM pad and low-grade ore on the low-grade ore stockpile will permit its inspection and testing, as appropriate, prior to its introduction into the concentrator feed line, where high- and low-grade ores will blend to achieve the ore grade required by the concentrator at any given time.
- Waste rock will be disposed of at the various waste rock landforms (WRLs, waste rock dumps) considered in the mine plan.
- Other material, such as lithium-bearing petalite, other mixed lithium minerals and gold-bearing material will be separated and stockpiled separately.

The mining proposal, submitted to the regulator for approval, outlines the land management schedule for the first 10 years of operation. Further approvals are required to mine beyond the 10 years to the full LoM of the Ore Reserves. It is anticipated that all impacts of the LoM project beyond the first 10 years can be readily managed and offset as required.

Figure 13-1. Indicative stage design and mining profile for first 10 years and final pit outline



13.2 Geotechnical, Hydrogeological and Relevant Parameters

The geotechnical pit wall parameters applied to the ultimate and staged pit designs align with those provided by Peter O'Bryan and Associates. Overall slope angles varied between 38° in the surface oxides to 50° as per Table 13-1. It is assumed that the pit walls will be depressurized during operation.

Table 13-1: OSA applied in Whittle

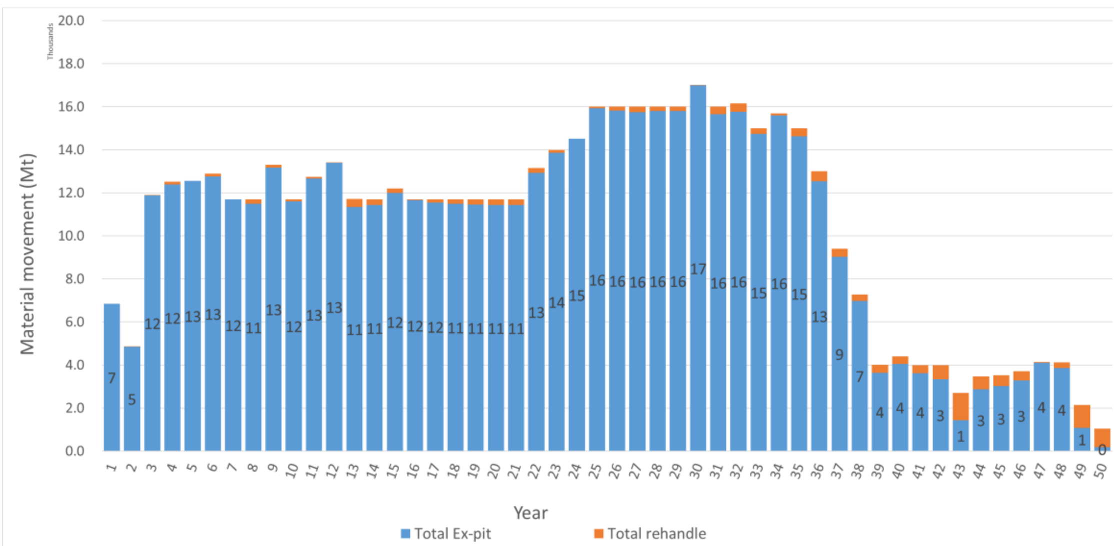
GZONE	Above mRL	OSA (°)
0	default	35
1	450	38
2	415	41
3	380	50
4	320	50
5	240	50
6	140	50

The identification of asbestiform minerals in waste samples has resulted in the development of systems and processes that will be implemented to ensure that the presence of this material does not have an adverse impact on the health of personnel.

13.3 Production Rates, Mine Life, Unit Dimensions and Dilution.

The mine will feed 2 Mtpa of ore to the concentrator, with an expected Life of Mine (LoM) of 50 years. The annual total material mined over the LoM production schedule is depicted in Figure 13-2. After an initial 2-year ramp-up period, a nominal production rate of 12 Mtpa of ore and waste ex-pit is maintained up to Year 21. From Year 21 to Year 35 the nominal production rate increases to 16 Mtpa, before dropping materially from Year 36 onwards. It is acknowledged that there are some periods where total mine movement does not fit the targeted profile, however this is not a material impact to providing overarching guidance for the detailed scheduling iterations.

Figure 13-2 LoM production schedule summary



The process plant ramp-up profile is presented in Table 13-2. It is noted that only 3 months of process plant feed is defined in the last quarter of Year 1.

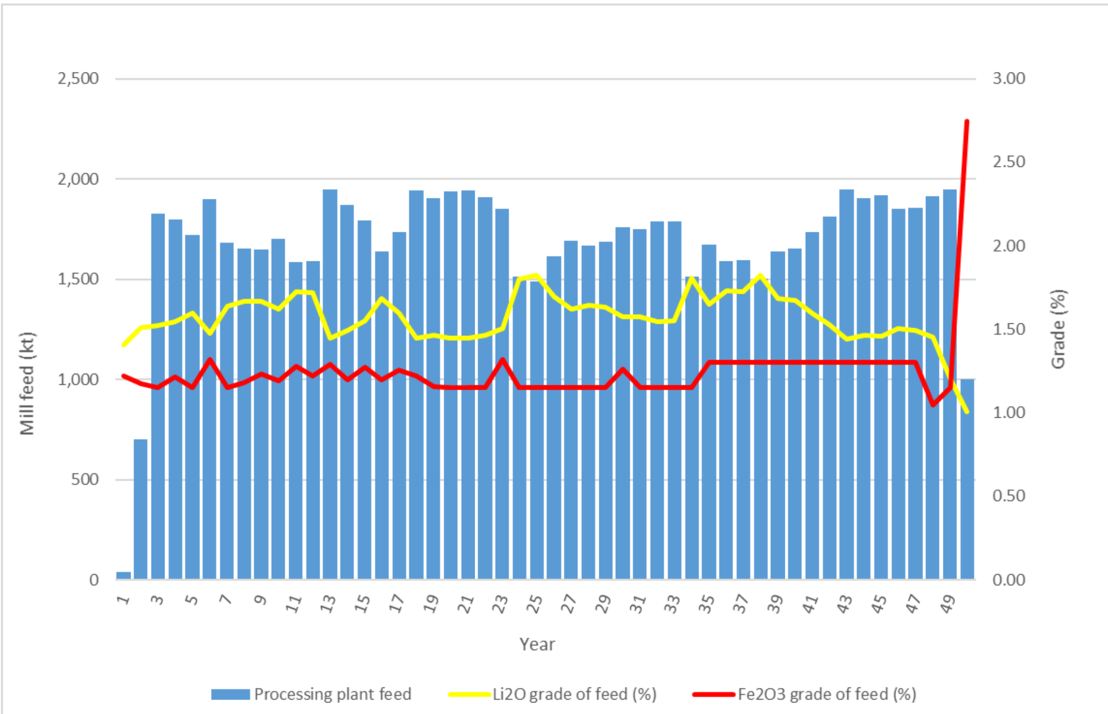
Table 13-2 Process plant annual ramp-up

Period	Target ore	Target metal
	t	Li_2O in refinery feed (t)
Year 1	40,000	460
Year 2	700,000	8,048
Year 3 onwards	1,945,000	21,060

The quantity of Li_2O in concentrate produced on an annual basis aligns with the maximum Refinery capacity set over the LoM (21,060 t of Li_2O). For most years the refinery metal capacity is the primary constraint. The annual plant feed capacity of the Concentrator is 2.0 Mtpa. All ore direct feed material within the Ultimate Pit design is processed in the LoM production schedule.

The annual grade profile of process plant feed for Li_2O and Fe_2O_3 is provided in Figure 13-3. The Fe_2O_3 grade is the primary constraint, with a smooth profile below 1.32% Fe_2O_3 being a key objective for the project. It can be observed that a large spike in Fe_2O_3 occurs during the final year of mine life. This spike may be mitigated during the detailed scheduling phase by configuring the schedule to continuously blend-out this material during the second half of the mine life.

Figure 13-3 Annualised grade profile of process plant feed



A dilution of 5% and an ore loss of 3% was applied to the sub-celled model. An additional 2% ore loss was applied to the regularised model to reflect operational losses over and above that incurred by the regularisation process. Recovery for the concentrator was set block by block based on Mica Content, Deslime losses and iron content, based on laboratory testworks. The refinery recovery of lithium into LiOH.H2O, lithium hydroxide, is nominally 85% from the testwork completed.

The LoM schedule produces 427.1 Mt of ex-pit waste, including mineralized waste. With the allowance of five per cent contingency, the waste landforms are required to store 165.0 million bank cubic meters[5] (Mbcm), equivalent to 206.2 million loose cubic meters (Mlcm) of waste material. During the same period, it also holds 50.8 Mt of plant and refinery DBS and other waste. The assumption is made that this material will fill the voids due to its fine nature.

13.3.1 Mine waste rock storage

Waste rock mined within the pit shell will be hauled to various waste landform destinations, including:

- The TSF: Waste material will be used to form the initial facility walls and to construct increases in TSF wall height. If appropriate methods can be found to limit exposure to fibrous minerals, waste will also be used as final capping at the end of LoM.
- The ROM pad: Waste rock will be used to construct the ROM pad and skyway.
- The abandoned Bounty Pit: Waste rock will be placed in the pit of the historic Bounty mine
- SWRL: The major waste rock landform at the start of the operation is the Southern Waste Rock Landform. It will overlie the historical TSF, constructed during gold mining operations at the site from the late 1990s until 2002.
- In-pit dumping of waste rock in the Mt. Holland Pit; This will occur when the Mt. Holland pit reaches its maximum southern extent and all economic lithium ore has been recovered from the southern extreme of the Earl Grey Ore Body. This is planned to occur from year 11 of LoM. The mining plan has been designed such that the in-pit dumping of waste rock in the south of the pit will not impact overall recovery of lithium from the Earl Grey deposit or result in reduced efficiencies or increased costs.
- Future WRL: Covalent is working on defining the location of the WRL infrastructure from year 11 onwards. Covalent has identified tentative locations that will be confirmed as engineering and permits progress.

In addition to mine waste, concentrator and refinery rejects will be incorporated into the WRL for disposal. It is assumed that due to the fine nature of the material it will fill the voids of the 25 per cent swell in the loose waste.

13.4 Mining Fleet Requirements

The contract strategy for the mine was developed to enable an experienced mining contractor to undertake all open pit mining activities at the site for the term of the contract and under the technical direction of Covalent's Mine Management Team.

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[5] Bank Cubic Meter (BCM) refers to a cubic meter of rock in place in the banks (benches) of an open pit, before it is blasted and dug out.

The scope of work includes:

- Mobilization to site.
- Establishment of local infrastructure for maintenance and operations.
- Provision and maintenance of mining and support fleet.
- Design, complete and manage drill and blast activities.
- Excavate, load, haul and dump waste.
- Selectively excavate, load, haul and dump ore.
- Complete the ROM ore handling and crusher feed requirements.
- General day to day mining activities as directed by Covalent.

The expectation is that the contractor will mobilize, operate and maintain all the appropriate equipment required for the movement of ore and waste as per the design schedule. Covalent has not directed the contractor in its choice of equipment and its size. The mine design will limit the haul road width and equipment selection will have to consider this design.

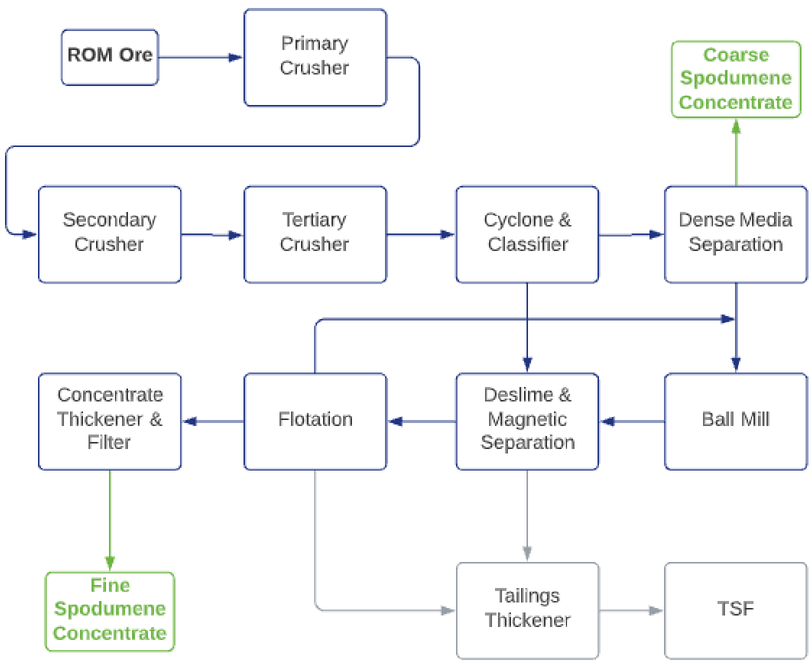
The volume of material moved annually in the mine schedule, the requirement for minimizing dilution by optimal drilling and fragmentation and the focus on efficient mining with flexibility indicate that 100 tonne and 200 tonne excavators coupled with 100 tonne or 140 tonne capacity trucks will be the likely equipment chosen. Any excavator/truck combination outside of these sizes will likely not be considered in shortlisting the tenderers.

14 PROCESSING AND RECOVERY METHODS

14.1 Concentrator flowsheet.

The proposed concentrator flowsheet uses unit operations that are typical and standard for spodumene concentrators. Specific adaptations have been made for Mt. Holland ore characteristics based on testwork that was executed at either bench or pilot scale. The project is designed to consistently deliver spodumene concentrate at 5.5 per cent Li_2O (dry weight basis) with a nominal output capacity of approximately 383 ktpa dry. Tailings are classified into two types based on physical properties, with the fine fraction diverted to a TSF and the coarse fraction reporting to the WRL. It is expected that, if DBS is not able to be allocated in the market, it will return to the mine and will be combined with the coarse fraction for disposal in the WRL. A simplified flowsheet is shown in the Figure 14-1.

Figure 14-1. Flow diagram of concentrator flowsheet

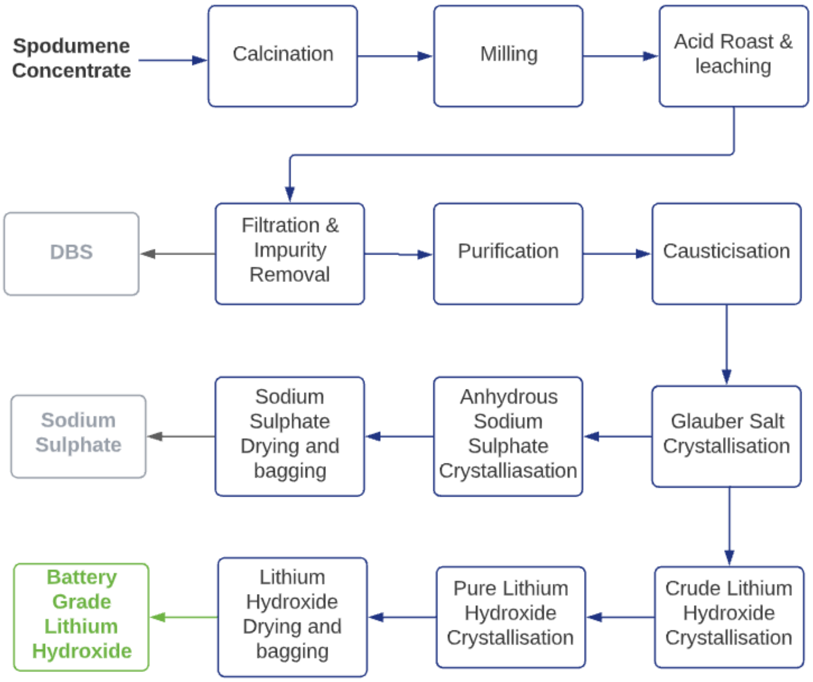


Source: Simplified from UIDFS (2020)

14.2 Refinery flowsheet

The refinery has a nominal production capacity of 50.3 ktpa (dry) LiOH product. Spodumene concentrate will be transported to the refinery, where the 5.5 per cent Li_2O (dry weight) concentrate will be processed using pyrometallurgical and hydrometallurgical processes. Following processing, the LiOH will be bagged and stored, and then transported via truck for export from Fremantle Port. A simplified process flowsheet is shown in Figure 14-2.

Figure 14-2. Lithium refinery process flowchart (spodumene to LiOH)



Source: Simplified from UIDFS (2020)

14.3 Energy, Water, Material and Personnel Requirements

14.3.1 Energy

The processing of spodumene ore into lithium concentrate requires a high degree of energy-intensive on-site beneficiation. Energy input to the concentration process will primarily be as electricity and is estimated an annual amount of 105,000MWh that will come from a grid connection to the state electricity network. The conversion process of spodumene concentrate into lithium hydroxide requires gas and electricity. The annual amounts are approximately 1.4million GJ of gas consumption and approximately 200,000 MWh of power consumption.

14.3.2 Water

To support the engineering design of the Project, a seasonal operational water balance was developed assuming a crusher throughput rate of 2 mtpa (dry. The total peak pipeline demand is estimated to be 3,428 m^3/d during the dry season, but as low as 1,947 m^3/d during the wet season. This water will be sourced from a pipeline to site. The Mt. Holland operational water balance is dependent on the assumptions made with respect to the recovery and recirculation of process water, especially in respect of water reclamation from the TSF. Assumptions are based on test results conducted for product streams, as well as inputs from SMEs.

14.3.3 Personnel

The Project estimated headcount during operations is expected to be approximately 270 across all sites.

15 PROJECT INFRASTRUCTURE

The Project comprises:

- An open pit mine development centered on the Earl Grey hard rock lithium deposit at Mt. Holland, approximately 100 kilometers south of Southern Cross in Western Australia and 500 kilometers east of Perth.
- A spodumene concentrator facility located at the Mt. Holland site with a nominal production capacity of 383 ktpa of spodumene concentrate at a grade of 5.5 per cent Li_2O.
- A refinery located in the Kwinana industrial precinct approximately 45 kilometers south of Perth, with the capacity to produce 50.3 ktpa of battery-grade lithium hydroxide product (LiOH) for export globally.
- The non-process infrastructure (NPI) required to support the Mt. Holland and Kwinana sites (including roads, buildings, accommodation and the provision of logistics and utilities).

15.1 Mine site & Concentrator

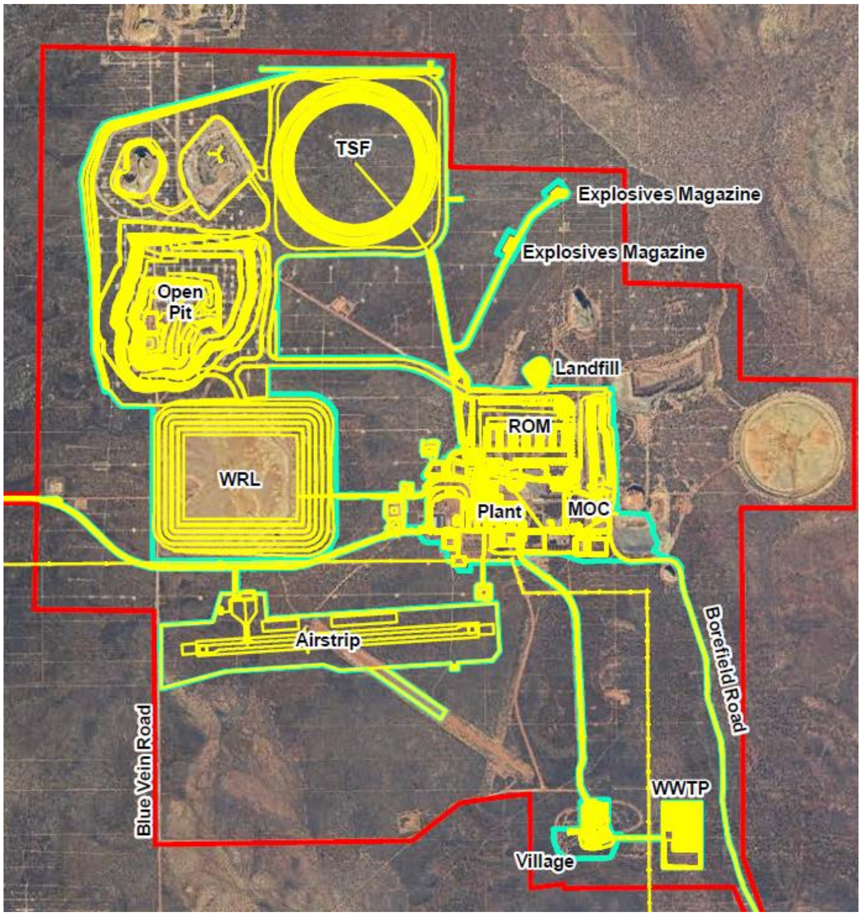
The mine site and concentrator include the following facilities.

- Mine Site and access roads: All roads will be maintained to a standard that minimizes the wear on the heavy road vehicles using it and to keep dust to a minimum.
- ROM
- Explosive Magazine.
- Concentrator: Comprises crushing facilities, ball mill, Dense Media Separation, flotation circuits, which are standard for Spodumene concentrator facilities. Two stage crushing is followed by a high-pressure grinding roll machine (HPGR), reflux classifier to remove mica, two stages of dense media separation (DMS) from the first stage going to tails and underflow from the second stage to final concentrate and overflow going to flotation.
- Tailings Storage Facilities: Mt. Holland concentrator is designed to export fine tailings in slurry form of approximately 55% solids, to a wet tailings storage facility (TSF). When constructed the TSF will provide approximately 8.89 Mm3 of storage volume that will allow storage capacity of approximately 13.3 Mt to satisfy the required 10 years storage life. The circular TSF design will be constructed by placing compacted clayey materials with relatively lower permeability against mine waste at the upstream side to form the containment embankment for tailings deposition. Mine waste is then progressively placed over the life of the pit(s) adjacent to the Integrated Waste Landform to allow for downstream construction.
- WRL: The key objectives of the WRL design are that the facility is safe, stable and environmentally acceptable for mine closure. The 10yr WRL is designed above a historic TSF, such that the waste transport distance from the pit face is minimized. Furthermore,

the WRL will be constructed using fresh waste, oxide material and other dispersive waste, de-lithiated Beta Spodumene (DBS), dense medium separation rejects, pegmatite mineralised waste, laterite, and all other waste types produced from the mine.

- Water pipeline: A 136 km pipeline from the great Eastern Highway tie-into the Mt. Holland mine site has been constructed to feed the water required for the project.
- Aerodrome: The aerodrome is a Code 2C CASA certified runway
- Accommodation Village: The accommodation village is located on the historical Bounty camp site and is comprised of: Accommodation capacity for 550 personnel consisting of 250 permanent rooms and 300 rooms during construction of the Project; Common user facilities including kitchen facilities, dining hall, wet mess, administration offices, gymnasium, medical, recreational facilities, ice room and storage; Wastewater and sewage treatment will be carried out within a central facility located in the village area.
- Powerlines and power sources: The project is planned to connect to the state grid network, sourced from 33kV grid connection to the South-West Interconnected System at Bounty Substation. A diesel power back up will be available for critical infrastructure.
- Building infrastructure: Civil infrastructure on the concentrator site includes site roads, buildings and other built infrastructure. The buildings and structures that have been considered include the Administration Office, Training Facility, Ablution, Emergency Services Building, Workshop & Workshop Office, Warehouse & Warehouse Office, Laboratory, Core yard, Reagents Storage Shed, Gatehouse, Primary Crushing Operators Hut and the Central Control Room (CCR).
- Communications infrastructure: The Mt. Holland site will have a primary data center and communications link with secondary backups for business continuity. The site will also have digital radios which includes location tracking in restricted areas (such as flora and fauna exclusion zones).

Figure 15-1. Mine Site and Concentrator Infrastructure for first 10 years



Source: Covalent

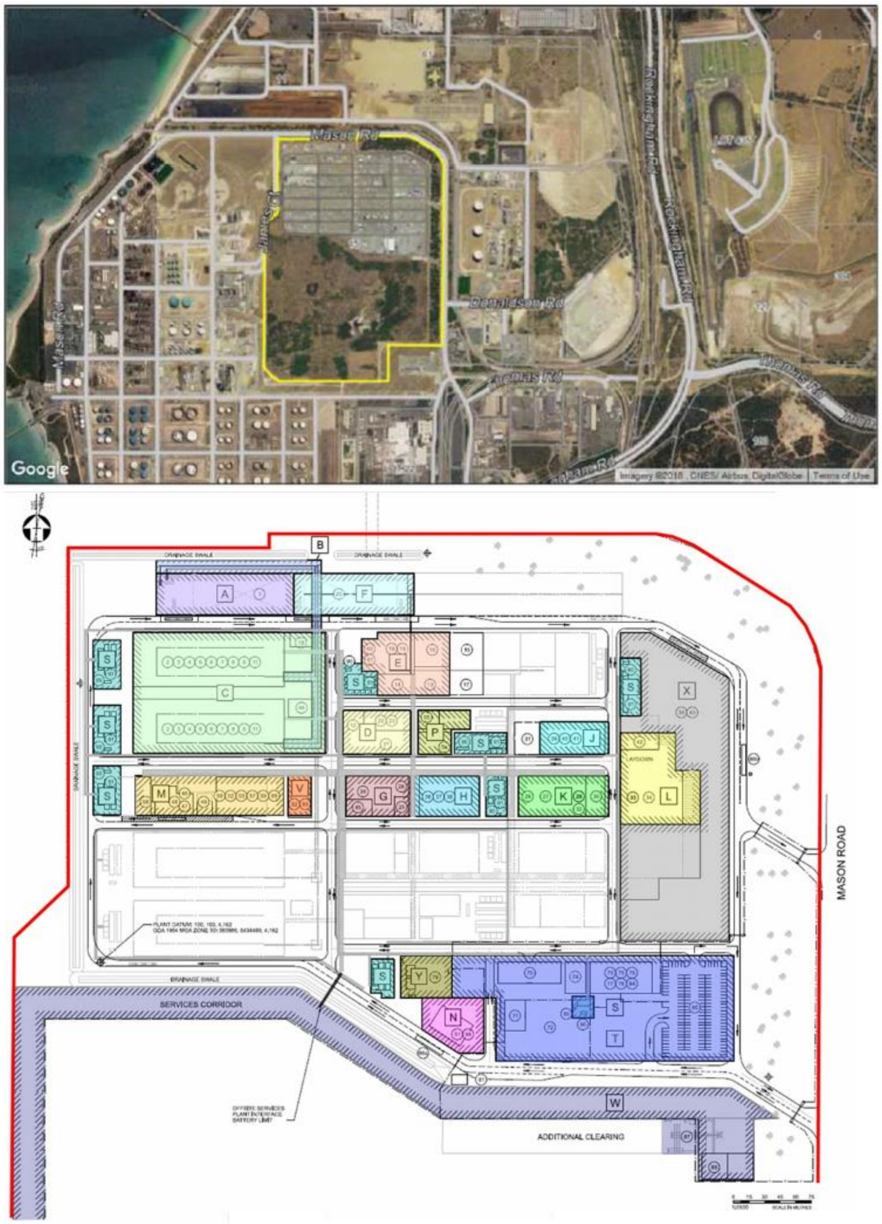
15.2 Refinery

The refinery layout is shown in Figure 15-2. The refinery infrastructure includes establishment of an electrical substation, water and water treatment services, a services corridor and containment infrastructure as well as civil infrastructure including buildings and roads.

- Power connection. The power connection at the refinery assumes a 132 kV connection to Western Power's southwest interconnected network. The dual feed connection is 500 m southeast from Mason Road substation and 1000 m northeast of the Leath Road substation relative to the development site.
- Gas connection: Natural gas is required for calcination, acid roasting, boiler, sodium sulphate drying and/or site operations. The refinery gas connection assumes a connection to local industrial gas supply network.
- Building infrastructure: The NPI infrastructure at the refinery consists of administration buildings, offices, workshops, laboratory, control rooms and crib rooms for operational and support services.

- Communications infrastructure. The Kwinana site will have similar communication infrastructure to Mt. Holland with primary data centres and communications link with secondary backups for business continuity.

Figure 15-2. Refinery layout at Kwinana



A, B, C: Pyromet Area, D, E, G, H, J, K: Hydromet Area, F, L: Final Products Area, M, N, P, R, S, Y: Utilities, T, U, V, W, X: Non-process infrastructures and other supporting infrastructures.

Source: Modified from UIDFS (2020)

16 MARKET STUDIES

16.1 Introduction

WSP was engaged by SQM to perform a Market study to support the resource and reserve estimates for the Salar de Atacama SQM Operations and it was used also for the Mt. Holland Project. The market study and summary detail contained herein present a forward-looking price forecast for applicable lithium products. This includes forward-looking assumptions around supply and demand. The QP notes that as with any forward-looking assumptions, the eventual future outcome may deviate significantly from the forward-looking assumptions.

16.2 Lithium and its Derivatives, Market, Competition, Products, Customers

SQM is a leading producer of lithium carbonate, which is used in a variety of applications, including electrochemical materials for batteries used in electric vehicles, portable computers, tablets, cellular telephones and electronic apparatus, frits for the ceramic and enamel industries, heat-resistant glass (ceramic glass), air conditioning chemicals, continuous casting powder for steel extrusion, pharmaceuticals, and lithium derivatives. It is also a leading supplier of lithium hydroxide, which is primarily used as an input for the lubricating greases industry and for cathodes for high energy capacity batteries.

In 2020, the SQM´s revenues from lithium sales amounted to US$383.4 million, representing 21.1% of the total revenues. The lithium chemicals' sales volumes accounted for approximately 19% of the global sales volumes.

16.2.1 Lithium Market

The lithium market can be divided into:

- lithium minerals for direct use (in which market SQM does not currently participate directly)
- basic lithium chemicals, which include lithium carbonate and lithium hydroxide (as well as lithium chloride, from which lithium carbonate may be made), and
- inorganic and organic lithium derivatives, which include numerous compounds produced from basic lithium chemicals (in which market SQM does not participate directly).

Lithium carbonate and lithium hydroxide are principally used to produce the cathodes for rechargeable batteries, taking advantage of lithium's extreme electrochemical potential and low density. Batteries are the leading application for lithium, accounting for approximately 75% of total lithium demand, including batteries for electric vehicles, which accounted for approximately 54% of total lithium demand. There are many other applications both for basic lithium chemicals and lithium derivatives, such as lubricating greases (approximately 5% of total lithium demand), heat-resistant glass (ceramic glass) (approximately 5% of total lithium demand), chips for the ceramics and glaze industry (approximately 2% of total lithium demand), chemicals for air conditioning (approximately 1% of total lithium demand), and many others, including pharmaceutical synthesis and metal alloys. During 2020, lithium chemicals demand increased by approximately 6%, reaching approximately 330,000 metric tonnes. It expects applications related to energy storage to continue driving demand in the coming years.

16.2.2 SQM Lithium Products

The annual production capacity of the lithium carbonate plant at the Salar del Carmen is now 120,000 metric tonnes per year. SQM is in the process of increasing the production capacity to 180,000metric tonnes per year. Technologies used, together with the high concentrations of lithium and the characteristics of the Salar de Atacama, such as high evaporation rate and concentration of other minerals, allow SQM to be one of the lowest cost producers worldwide.

The lithium hydroxide facility has a production capacity of 21,500 metric tonnes per year and SQM is in the process of increasing this production capacity to 30,000 metric tonnes per year.

In February 2021 SQM approved the investment for the 50% share of the development costs in the Project, from which SQM expects a total production capacity of approximately 50,000 metric tonnes (25,000 metrics tonnes are attributable to SQM).

16.2.3 Lithium Competition

Lithium is produced mainly from two sources: concentrated brines and minerals. During 2020, the main lithium brines producers were Chile, Argentina and China, while the main lithium mineral producers were Australia and China. With total sales of approximately 101,00 metric tonnes of lithium carbonate and hydroxide, SQM's market share of lithium chemicals were approximately 19% in 2021.

One of the main competitors is Albemarle Corporation ("Albemarle"), which produces lithium carbonate and lithium chloride in Chile and the United States, along with lithium derivatives in the United States, Germany, Taiwan and China, with a market share of approximately 22%. Albemarle also owns 49% of Talison Lithium Pty Ltd. ("Talison"), an Australian company, that is the largest producer of concentrated lithium minerals in the world, based in Western Australia. The remaining 51% of Talison is owned by Tianqi Lithium Corp. ("Tianqi"), a Chinese company producing basic lithium chemicals in China from concentrated lithium minerals. Talison sells a part of its concentrated lithium mineral production to the direct use market, but most of its production, representing approximately 21% of total lithium chemical demand, is converted into basic lithium chemicals in China by Tianqi and Albemarle. Currently, Tianqi and Albemarle are expected to begin production at their new lithium hydroxide plants in China and Australia, which are expected to be operational during 2022. Tianqi is also a significant shareholder of SQM, holding approximately 23.15% of our shares as of March 1, 2022. .

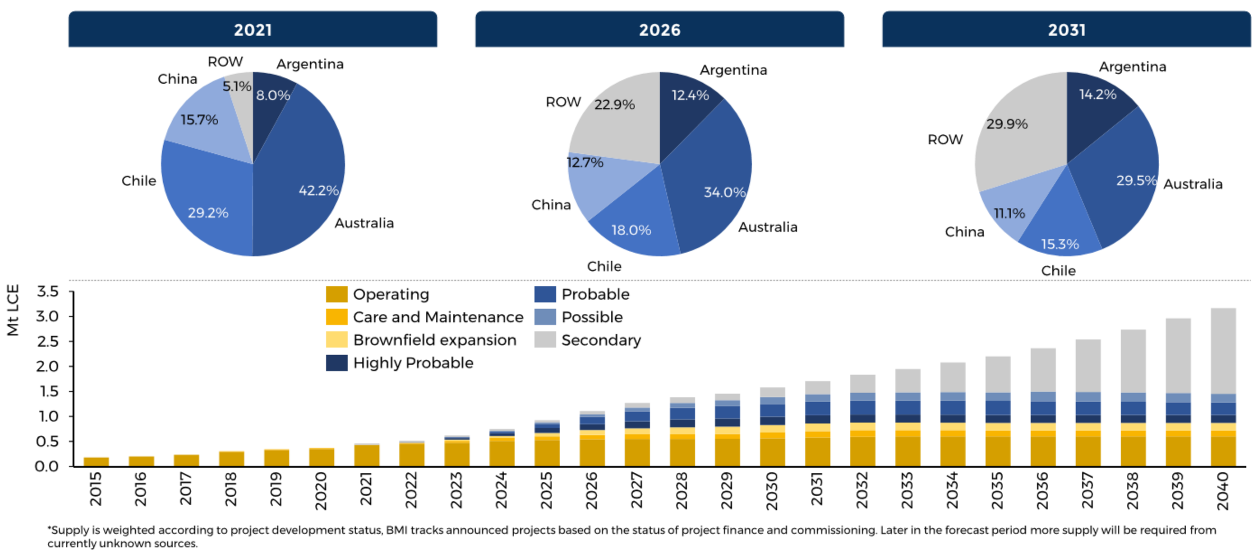
Another important competitor is Livent Corporation ("Livent"), with an estimated market share of approximately 6%. Livent has production facilities in Argentina through Minera del Altiplano S.A., where it produces lithium chloride and lithium carbonate. In addition, Livent produces lithium derivatives in the United States, the United Kingdom and China. Orocobre Ltd., based in Argentina, produces lithium carbonate, with a market share of approximately 3%.

Australia is an important source of concentrated lithium minerals. Since 2018, two producers have doubled their production of concentrated mineral, which is currently converted into lithium chemicals in China. One of these producers is a joint venture between Ganfeng Lithium Co. ("Ganfeng") and Mineral Resources Ltd in the Mt. Marion project. Galaxy Resources Ltd. is another important producer with operations in Mt. Cattlin. Additionally, Pilbara Minerals has been operating since 2018 in the Pilgangoora deposit. In addition, there were at least ten other companies producing lithium in China from brines or minerals in 2020. It is expected that lithium production will continue to increase in the near future, in response to an increase in demand growth. A number of new projects to develop lithium deposits has been announced recently. Some of these projects are already in the advanced stages of development and others could materialize in the medium term.

16.3 Lithium Supply Forecast

According to Benchmark Mineral Intelligence "Q3 2021 Forecast", 2021 mined supply has been revised up to 458.6 kt LCE. It is estimated that 136.3kt of lithium hydroxide and 283kt of lithium carbonate will be produced in 2021 (Figure 16-1 and Figure 16-2). This increase is unlikely to meet rising demand, placing both chemicals in a deficit position, reflecting the strong demand-pull for feedstocks currently being felt in China.

Figure 16-1 Lithium Feedstock, supply forecast

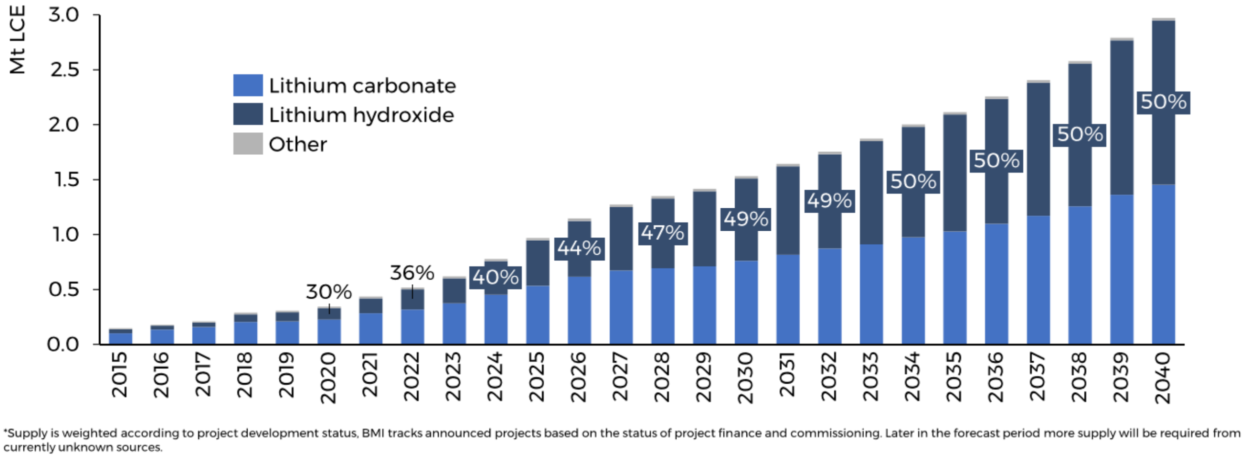


Source: SQM-Benchmark Minerals Intelligence (2021)

In China is expected to produce around 153kt LCE of lithium carbonate, and 110kt LCE of lithium hydroxide in 2021. The majority of feedstock is imported. Most lithium chemical production in China is produced from Australian spodumene, in addition to a very small amount imported from Brazil. Supplementing this, and largely feeding directly into battery demand, is 41kt LCE of lithium carbonate imported from Chile and Argentina in the first half of 2021.

In Australia, there are four spodumene producers currently operating, with around 191kt LCE of spodumene concentrates expected to be produced in 2021.

Figure 16-2 Lithium Chemical Supply Breakdown



Source: SQM-Benchmark Minerals Intelligence (2021)

In Argentina, there are currently two lithium producers: Livent and Orocobre. These producers operate from the Salar del Hombre Muerto and Salar de Olaroz respectively. Expectations on output for 2021 remains unchanged this quarter, with both operating at or close to production capacity.

In Chile the main producers are: SQM and Albemarle. Albemarle is expected to produce around 42kt LCE of lithium carbonate in 2021. MSB (majority owned by Lithium power International) is targeting an initial capacity of 15kt LCE for its Maricunga project, not expected to enter the market until 2025.

16.4 Demand

According to Benchmark Mineral Intelligence "Q3 2021 Forecast", demand estimates for lithium in LFP (Lithium Ferro Phosphate) cathodes have increased in Q3 2021 to 66.4kt LCE in 2021. Medium and long-term demand has also been revised upwards as cell manufacturers continue to bring new LFP capacity into production.

Increased demand for LFP cathodes comes at the expense of NCM (Nickel, Cadmium and Manganese) cathodes. LFP cathode market share is expected to make up roughly 22% of cathode demand in 2030, while NCM has been downgraded to 60% of the market.

According to Benchmark Mineral Intelligence "Q3 2021 Forecast", Total base-case battery demand is expected to climb to 346 GWh in 2021, translating to an adjusted 339kt LCE lithium demand in 2021, up from 225kt LCE in 2020. Adjusted base case demand from battery end-use is expected to reach 473kt LCE in 2021. The upward revision comes as China's EV penetration rates continue to climb.

16.5 Balance

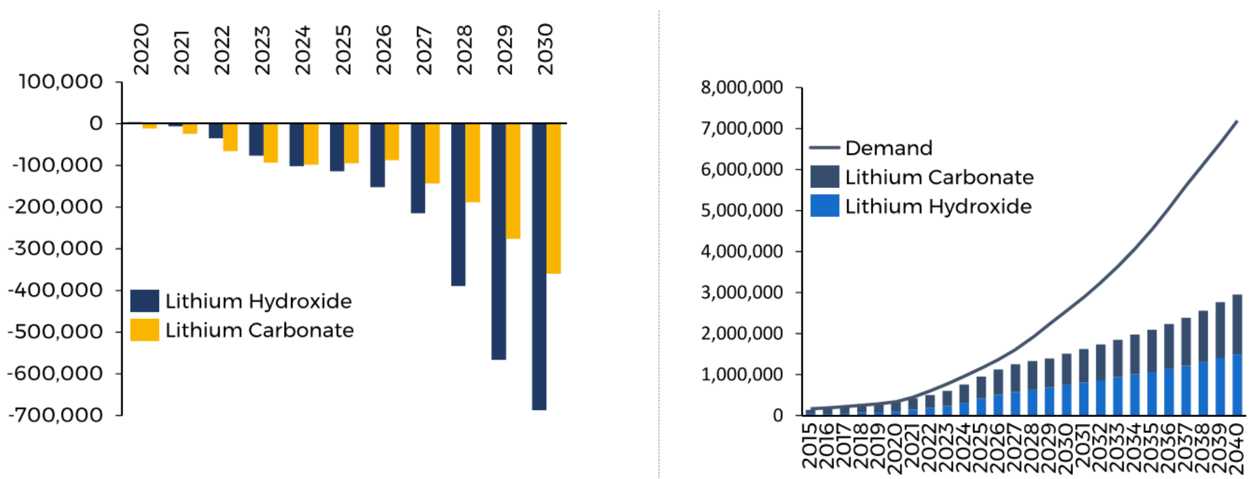
According to Benchmark Mineral Intelligence "Q3 2021 Forecast", the balance for the Short-term market is:

- 2021 is expected to finish in a deficit position of around 14.8kt LCE tonnes. The deficit position is despite a stronger than expected response from Talison and SQM, with the latter being able to leverage pond capacity originally intended for the potash market.
- 2021 base-case demand has been revised up to 473kt LCE this quarter, with further upside potential.
- The deficit in lithium chemicals is greater than that of overall supply, owing primarily to conversion losses but also the lack of ability to ramp up to full capacity targets, particularly in China.
- A renewed focus on LFP battery production is expected keep pressure on carbonate supply in the short-term. This latest update shifts the deficit more heavily towards carbonate from 2021-2023.

Medium to long term market dynamics

- 2023 is expected to be in a significant deficit position despite the restart of various idled operations.
- Due to the ramp-up time and investment required to bring new projects online, there is little chance that the market will move into surplus before 2025.
- In the extremely unlikely event that all projects to enter production on or before 2025, the market has the potential to balance from that year until 2029. However, in this case, it would be likely that demand would enter an upside scenario, placing the market back into a deficit. Figure 16-3 shows the projected demand and lithium supply.
- It is likely that in the medium-long term that PEV penetration will be limited by material supply, rather than demand.

Figure 16-3 Lithium Chemicals Balance (Tonnes LCE)



Source: SQM-Benchmark Minerals Intelligence (2021)

16.6 Lithium Price

Figure 16-4 shows the historic lithium price evolution in the last five years, expressed in yuan.

Figure 16-4 Lithium historic Price evolution

Source: https://tradingeconomics.com/commodity/lithium

The short- and long-term prices are based on the Benchmark Minerals Intelligence forecast (2021):

- Short term: prices are expected to continue to rise as demand outstrips supply, with no additional tonnage available to ease market tightness in the coming months.
- Long Term: According to Benchmark Mineral Intelligence "Q3 2021 Forecast", Prices are expected to increase but likely to be unsustainable at US$16,000-18,000/tonne. Even in the case where supply cannot meet demand, prices will likely stay high but fall back to a sustainably higher price which is able to incentivize new supply. While the chemicals industry in China seems to have little barrier to ramping up, supply bottlenecks at the mine-site level exist and will need to be solved. Long-term price incentives: it remains the view that long-term incentive price for lithium carbonate of US$ 12,110/tonne and for lithium hydroxide of 12,910 US$/tonne will be required to sustain new project development post-2030.

16.7 Contracts and Status

Under the Unincorporated Joint Venture Agreement each joint venture partner will receive the products produced by the Joint Venture in pro-rata to their interest in the Joint Venture, currently being 50% for SQM.

SQM has not entered into any binding agreements that directly assigns the production SQM will receive from the Project.

17 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

17.1 Baseline studies

Multiple environmental baseline studies were undertaken over the life of the Mt. Holland mine site and the Project between 2005 and 2021. The studies identified species of flora and fauna that required protection within the development envelope. As such, Exclusion zones and offsets were imposed under the Ministerial Statement 1118 (MS1118) and the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act.) As shown in Table 17-1 below, systems and procedures have been developed and implemented to support ongoing management of flora and fauna on site.

A detailed site survey of historical legacy areas within the development envelope was completed to establish and quantify historical disturbances and baseline contamination prior to the commencement of operations and to verify the extent of any future liability associated with utilizing the historical site.

17.1.1 Vegetation

The mine development envelope is situated within the designated area and buffer for the Ironcap Hills Vegetation Complexes (Mount Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone), a Priority 3 Ecological Community (PEC). A quantitative statistical review of species and vegetation communities observed within the development envelope as compared to the Ironcap Hills vegetation complexes was completed by Mattiske Consulting (2018). The statistical analysis reveals a poor correlation between the identified vegetation communities, dominant vegetation types and representative species associated with Ironcap Hills Vegetation Complexes in addition to the lack of comparative landforms and geology associated with the Priority Ecological Community (PEC). Given this analysis, it was considered the Project was not expected to result in significant impacts to the Ironcap Hills PEC.

Populations of Banksia *sphaerocarpa var. dolichostyla* classified as a 'threatened' species under the Environmental Protection Act 1986 (EP Act) and the Commonwealth EPBC Act have been identified in and around the disturbance footprint within the development envelope. Dedicated flora exclusion zones were imposed under MS1118 and require Covalent to undertake ongoing monitoring and protection of the populations within these zones with any impact to plants caused by the operations considered a breach of approval conditions. Exclusion zones were also imposed on a Priority 1 species, *Microcorys elatoides* and *Acacia lachnocarpa*, Priority 2 species, *Orianathera exillis*, and Priority 3 species, Hakea pendens. Both Ironcap Banksia and Microcorys elatoides species require offsets under MS1118 and the Ironcap Banksia require offsets under the EPBC approval conditions.

Baseline flora and vegetation survey work has been conducted by Mattiske Consulting within the disturbance envelope and extending 1km beyond the EPA assessed development envelope boundary. The surveys identified a total of 26 conservation significant flora species which will be directly or indirectly impacted by the Project. The mitigation hierarchy of 'avoidance, minimize, rehabilitation, offset' has been applied to manage and minimize impacts to conservation significant flora. The infrastructure footprint has been designed to ensure the maximum avoidance possible of conservation significant flora. Impacts to conservation significant flora will be managed according to the Flora and Vegetation Environmental Management Plan. Intensive targeted flora surveys throughout the region were successful in identifying additional populations of each species resulting in a significant increase in total regional population numbers. This has ultimately reduced the proportional impact threshold to 10 per cent, the level confirmed by Department of Water and Environmental Regulation (DWER) to be an acceptable level of impact. In addition, approximately 25% of the disturbance envelope consists of previously cleared land.

Preservation of both the flora exclusion zones and individual populations of priority species outside of these exclusion zones will require ongoing intensive management throughout the construction and operations phases. Systems and procedures have been developed by Covalent to support ongoing management of flora on site.

17.1.1.1 Biodiversity

The site consists of flora, vegetation and communities ranging in condition from completely degraded in existing disturbed areas to excellent in remnant bushland areas with numerous conservation significant species within the Disturbance Envelope. Whilst the utilization of existing infrastructure and purposeful location of new infrastructure within existing disturbed areas has reduced the impact, it is recognized that the implementation of the proposal will result in the loss of 386 ha of vegetation including conservation significant species. However, this impact has been assessed by the EPA under Part IV of the EP Act and the MS1118 required the preparation and implementation of an EPA approved Flora and Vegetation Environmental Management Plan. Weeds and pathogens (notably dieback) present a risk to biodiversity and although the weed and pathogen presence in the Disturbance Envelope is low, appropriate active management through the implementation of the Flora and Vegetation Management Plan, Dieback Management Plan and hygiene procedures will be required to ensure that they do not pose a significant risk to regional biodiversity.

17.1.2 Fauna

Detailed baseline fauna surveys comprising of six field surveys were conducted by Western Wildlife in 2016 and 2017 (Western Wildlife, 2017). Three broad fauna habitats were identified, which are well presented regionally and are not unique to the Project development envelope. Although the fauna habitats identified are extensive in the region, they are regionally significant in being part of the Great Western Woodlands (GWW). Malleefowl and chuditch were also located within the development envelope during fauna surveys. Both species are classified as 'vulnerable' under the EPBC and EP act. MS1118 also imposed exclusion zones around 31 active and long unused mallee fowl mounds within the development envelope requiring Covalent to provide ongoing protection and monitoring of these mounds.

Land acquisition offsets were also required under conditions of the Commonwealth and State approvals and a suitable offset has been identified and is awaiting endorsement from DWER and Department of Agriculture, Water and the Environment (DAWE). Population surveys and trapping of chuditch and monitoring of malleefowl mounds are required prior to each clearing activity to remove the risk of injury to any individuals that may be present in the proposed clearing area. There are some restrictions to clearing activities during the breeding season so planning and scheduling of clearing activities needs to manage this.

17.1.2.1 Biodiversity

The existing disturbance across the site means that the area does not support a significant complement of native fauna. Further, new infrastructure such as the water pipeline has been purposefully located within existing disturbed areas to minimize direct impacts from clearing and habitat fragmentation. Subterranean fauna was also investigated as part of the baseline assessment, and it was concluded that the project is not considered to pose a significant threat and no specific subterranean fauna management is required.

For any sections of the water pipeline that must be constructed aboveground to avoid areas of granite outcrops, the pipeline will be located to allow fauna egress around the pipe. The requirement for aboveground sections is not expected to span over long distances as the preferred construction method is trenching. As stated in the approval of the Section 45C by the EPA, the addition of the water pipeline to the Project does not pose a significant detrimental effect on the environment.

The project is considered to have minimal impact on fauna biodiversity if managed and implemented in accordance with the Terrestrial Fauna Management Plan, which has been prepared in accordance with requirements of the MS1118, and subsequently approved by EPA.

17.1.3 Contaminated sites

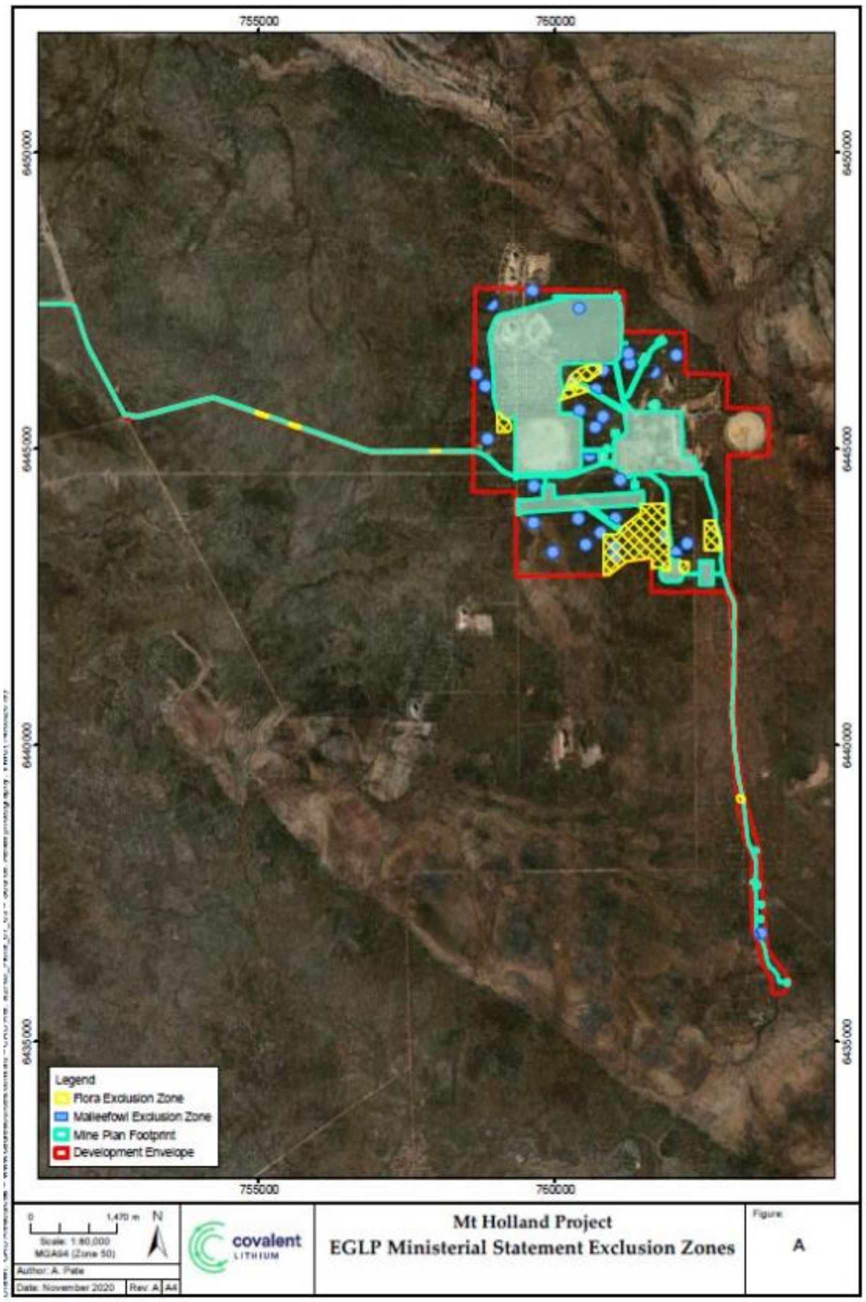
A detailed site survey of historical legacy areas within the development envelope was completed to establish and quantify baseline contamination prior to the commencement of operations and to verify the extent of any future liability associated with utilizing the historical site. Sampling was focused around the historical infrastructure areas on tenement M77/1066 using test pits with samples sourced from within the top one to four meters of the soil profile using an excavator.

Results indicated elevated levels of hydrocarbons were present in soil within the historic washdown bay, fueling area and workshops exceeding Ecological Screening Levels and/or Health Screening Levels for vapor intrusion for commercial/industrial land. Sampling also indicated elevated metals were present in surface soils across most of the historical infrastructure area.

Per- and poly fluoroalkyl substances (PFAS) were present in soils within the workshops but at concentrations below human health screen values. Sampling of the historical landfill found elevated coliform and nutrient levels whilst asbestiform containing materials were not identified in surface soil within the historic ROM pad

Results of the survey were submitted to DWER as required under the Contaminated site regulations and the site has been classified as 'Possibly contaminated – investigation required.' Investigations have commenced (Stage 1 and Stage 2 DSI) and a Site Management Plan detailing remediation activities is being developed. The majority of these remediation activities will be undertaken at the end of life of the project when facilities are decommissioned.

Figure 17-1. Priority species exclusion zones



Source: Covalent

17.2 Permitting

The Project was formally referred to the Western Australian Environmental Protection Authority (EPA) under Section 38 of the Environmental Protection Act 1986 (EP Act) on 19 May 2017 by Kidman Resources. The EPA determined that a Public Environmental Review level of assessment was required.

Ministerial Statement 1118 (MS1118) was issued in November 2019 and the Project was also approved by the Department of Agriculture, Water and Environment (DAWE) under the provision of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) in February 2020. The above approvals contained conditions that the Project must comply with in the development of the Project, the approval requirements and status are outlined in Table 17-1 below.

Table 17-1 Approvals required for the project and completion date.

Approval	Regulatory Body	Purpose	Status
Mt. Holland – Mine & Concentrator			
Commonwealth Approval (EPBC)	DAWE	Required to break ground	Approved
Variation to condition (Flora)	DAWE	Required to break ground	Approved
Ironcaps Banksia Conservation Plan	DAWE	Required to break ground	Approved
Fauna Offsets Management Plan (Stage 1)	DAWE	Required to break ground	Approved
Fauna Offset (Additional sites) Management Plan	DAWE	Required within 12 months of approved Plan. Not required to break ground	Expected in Q3 2022
Fauna Offset Management Plan	DAWE	LoM required to break ground	Pending
Ministerial Statement MS1118	DWER	Required to break ground	Approved
Ministerial Statement Part IV amendment (s46)	DWER	Required to remove layout restrictions	Approved
Ministerial Statement Part IV amendment (s45c) for Water Pipeline	DWER	Required to break ground for the Water Pipeline	Approved
Flora and Vegetation Management Plan	DWER	Required to break ground	Approved
Terrestrial Fauna Management Plan	DWER	Required to break ground	Approved
Ministerial Statement Part IV amendment (s38) – Stage 1	EPA WA	Required for wet TSF construction	Expected in Q2 2022
Ministerial Statement Part IV amendment (s38) – Stage 2 LoM	EPA WA	Not required until year 9 of mining operations	Pending
Threatened Fauna Land Acquisition Strategy	DWER	Required to break ground	Approved

Approval	Regulatory Body	Purpose	Status
Flora Offset Strategy – Translocation Proposal	DWER	Required prior to removal of banksia	Pending
Mining Proposal & Mine Closure Plan (Stage 1)	DMIRS	Required to break ground	Approved
Mining Proposal & Mine Closure (s46 & 45c Stage 1b)	DMIRS	Required to construct pipeline	Approved
Mining Proposal amendment (TSF Stage 2)	DMIRS	Required to construct TSF	Expected in Q2 2022
Mining Proposal amendment (LoM)	DMIRS	Required for LoM TSF and WRL	Pending
Works Approval Concentrator	DWER	Required to construct	Approved
Works Approval – TSF	DWER	Required to construct	Expected in Q2 2022
Works Approval – Permanent Village & WWTP	DWER	Required to construct	Approved
Works Approval – Landfill	DWER	Required to construct	Expected in Q2 2022
Works Approval – Waste Disposal of Refinery Waste	DWER	Required to dispose Refinery Waste at Mt. Holland	Expected in Q3 2022
Refinery			
Development Application	City of Kwinana	Required to break ground	Approved
Development Application Amendment	City of Kwinana	Required to include changes to footprint and design	Approved
EPA Part IV Referral	EPA WA	Required to break ground	Approved
Refinery Works Approval	DWER	Required to construct	Approved
NVCP - Refinery	DWER	Required for refinery carpark	Pending

Source: Based on Covalent

17.3 Waste Rock and Tailings

17.3.1 Mt. Holland

The development of the Mine Pit will be staged, requiring mining of varying types of waste rock to expose fresh ore. Covalent has undertaken significant analysis of waste rock types for the purpose of waste rock management, the waste rock types to be excavated from the Mine Pit include fresh waste rock (geochemically benign, erosion resistant), transitional waste rock (slightly moderately saline, low soluble toxicants, varying erosion resistance) and oxide waste rock (low soluble toxicants, saline, dispersive). The development of the Mine Pit will be staged requiring mining of the varying types of waste rock (from oxide waste rock at the surface to fresh waste rock at depth) to expose fresh ore. This approach will allow the construction of the Waste Rock Landforms to be staged to encapsulate the oxide and transitional waste rock within the fresh, competent waste rock as the Mine Pit development progresses. Dispersive oxide and transitional materials, in all waste rock landforms, will be encapsulated with fresh competent waste rock to minimise the potential for post-mining erosion or sedimentation. Laterite material may also be disposed to a Waste Rock Landform as a fresh waste rock, utilised as fresh waste rock for final rehabilitation of a Waste Rock Landform, and/or used as a construction material (e.g., road base, fill, rehabilitation armouring).

Tailings from the Project will be disposed to a standard wet Tailings Storage Facility (to replace Integrated Waste Landform based on dry tailings), consistent with DMIRS (2013) documentation. Geochemical characterisation of the tailings has confirmed to be environmentally benign (non-reactive, non-polluting), therefore a proposal to utilise a 'wet' Tailings Storage Facility was submitted to the EPA in August 2021.

All waste rock and wet tailings infrastructure will be managed in accordance with relevant guidelines published by DMIRS and regulated in according with the Mining Proposal as assessed and approved by DMIRS. Groundwater quality will be monitored through a groundwater monitoring programme utilising existing monitoring bores and a series of new monitoring bores to be installed around the TSF and WRL. This programme will confirm any leaching of waste materials from the WRL and seepage from the TSF.

When the waste rock landform and tailings storage facility are decommissioned, they will be rehabilitated using local provenance plant material and seed. Ongoing monitoring of both infrastructure facilities (for erosion and stability) and for plant germination will be required over a long term to confirm rehabilitation is sustainable and the areas can be handed back to the state with no ongoing liability or legacy.

17.3.2 Refinery

The location of the Proposal (Lot 15 Mason Road, Kwinana) was purposefully selected to be situated within an existing industrial area (KIA), and on a previously disturbed site, thereby minimising the potential disturbance and impacts to the existing environment. The Project has considered the mitigation hierarchy in the development, which resulted in the avoidance of any refinery waste disposal to landfill on the Swan Coastal Plain and have given the consideration to whether refinery process-derived waste products can be avoided or reduced by considering them as beneficial reuses of waste as secondary co-products.

Where Covalent is not able to allocate the inert refinery process-derived waste from the refinery for reuse, it is proposed to be returned to the mine operations for co-disposal within the approved Waste Rock Landform. Geochemical characterisation has confirmed the refinery waste to be environmentally benign (non-reactive, non-polluting) such that it does not present any new or additional environmental risk for the Mt. Holland site. For additional context, the volume of the refinery waste will represent approximately 5% of the total volume of materials for disposal to the Waste Rock Landform.

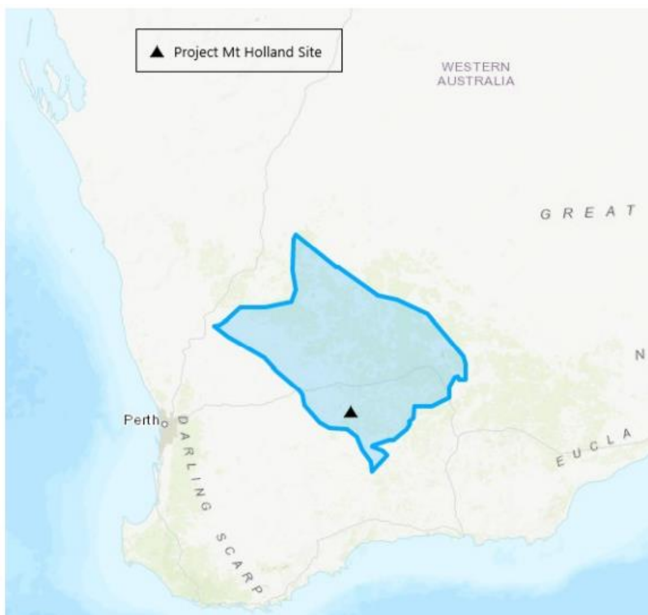
17.4 Social or Community Impacts

Stakeholder engagement with State departments and local government authorities commenced in late 2016 and an external stakeholder consultation strategy is being developed for ongoing social engagement and community investment.

The Project has entered into a native title agreement with the Marlinyu Ghoorlie group in September 2020 to grant tenements required for the project.

The Marlinyu Ghoorlie Native Title Claim (MG Claim) (Reference Federal Court number: WAD647/2017; NNTT number: WC2017/007) was made by Brian Champion (Snr) and others in late 2017. It covers an area of approximately 98,638 km2 to the east of Kalgoorlie, including the area where the Project is expected to be built. Figure 17-2 shows an outline of the Marlinyu Ghoorlie claim area with the approximate location of the project site. The claim is currently being assessed by the Native Title tribunal.

Figure 17-2. Map showing extent of Marlinyu Ghoorlie claim – WC2017/007



Ongoing stakeholder identification, communication, engagement, and consultation have and will continue through planning and approvals, construction, operational and closure phases.

The Project has also developed an Australian Industry Participation (AIP) plan, which has been approved by the AIP Authority. In accordance with the plan, the Project will continue to engage with local government and bodies to ensure that local labour and businesses are used wherever economically practicable in the construction and operation of the Project.

17.5 Mine Closure Planning and Rehabilitation

17.5.1 Mine Closure Planning

The objective of all rehabilitation and decommissioning is to ensure that premises are decommissioned and rehabilitated in an ecologically sustainable manner. The Mine Closure Plan (MCP) have been submitted to the Department of Mines, Industry Regulation and Safety of the Government of Western Australia (DMIRS) with the Mining Proposal and was subsequently approved as shown in Table 17-1. However, mine closure planning is a progressive process and MCP require ongoing review, development, and continuous improvement through the life of the mine. The level of information required needs to recognize the stage of mine development with detail increasing as the mine moves toward closure. Financial forecasts for the Project have included provisions for cost related to mine closure planning.

17.5.2 Rehabilitation

The objective of all rehabilitation is to provide a stable self-sustaining landform and will be performed in accordance with the regulations and guidelines. The Project intends to, where practicable, progressively rehabilitate disturbed land as areas become available.

All completed rehabilitated areas will require annual monitoring to ascertain the rehabilitation is tracking towards a successful sustainable outcome. Monitoring will include plant density, diversity, reproduction of juveniles, foliar cover, erosion, and stability of landform analysis. Sustainable rehabilitation over a long term is required to be demonstrated before responsibility for the land can be relinquished. Financial forecasts for the Project has included provisions for cost related to rehabilitation.

17.6 QP's opinion on adequacy of current Environmental, Social and Governance plans

In terms of environmental studies, permits, plans, and relations with local groups, the Project submitted an Environmental Impact Assessment (EIA) complying with the established contents and criteria, and the legal requirements of current environmental regulations in Western Australia. The approvals for the Project have been received and the construction of the facilities are under way. The QP recognizes that further environmental approvals are required to mine beyond the 10 years to the full Life of Mine of the Ore Reserves. It is anticipated that all impacts over the Life of Mine of the Project, beyond the first 10 years, can be readily managed and offset as required. The outstanding approval to build the TSF is on track and at the moment of elaboration of this report is not considered to represent a significant risk for the Project.

In addition, the project committed to some ongoing monitoring measures (including groundwater sampling, soil analysis and vegetation health monitoring) to detect any effects on the environment them as a result of the project implementation. This will allow the project owner to implement controls and mitigations measures in the unlikely event that project related impacts were identified.

18 CAPITAL AND OPERATING COSTS

Capital and operating cost estimations in this report are a forward-looking exercise that rely upon assumptions and forecasts that are subject to change depending upon macroeconomic factors, unforeseen circumstances and new information becoming available. In all cases there are risks and unforeseen scenarios that may result in actual outcomes being different from those set out in the forward-looking statements and forecasts.

18.1 Capital Cost Estimates

The Project is comprised of two main sites: the mine and concentrator plant at the Mt. Holland mine site and the Refinery in the Kwinana strategic industrial area.

The total capital cost for the Project has been estimated at US$1,226 million in real terms. The portion attributable to SQM is 50% of the total capital cost. A summary of the total capital cost is provided in the Table 18-1 below.

Table 18-1. Capital cost by category

Capital cost category	Amount (US$ million)
Mine, concentrator and supporting infrastructure	37%
Refinery and non-processing infrastructure	45%
Corporate	5%
Contingency	13%
Total capital cost (including contingency)	1,226 (100%)
Escalation estimate (based on approx. 2.3 per cent per annum growth between the periods)	39
Total capital cost (including contingency and escalation)	1,265

The capital cost above is an updated estimate from the proposed amount presented to the joint venturers when making the investment decision in February 2021. The update from the amount presented to the joint venturers includes the mine plan that resulted from the reserves update performed during 2021 (Chapter 11 and Chapter 12 of this report). At the time of the investment decision, the joint venturers were presented a risk-adjusted P50 estimate that, due to high uncertainty, excluded a risk allowance for impacts from COVID-19. SQM approved an investment of approximately US$700 million to cover its share of the Project.

The capital cost estimate for the Project was compiled from various sources – each best placed to estimate the cost for a portion of the overall estimate. Table 18-2 shows the sources of the various estimates.

Table 18-2. Sources of the various capital cost estimates

Capital cost category	Estimate source
Mining	· Mining physicals (i.e. mine plan) estimated by Covalent. · Mining costs estimated by IQE – expert mining estimators.
Concentrator	· All concentrator Long Lead Items (LLI) costs based on firm prices, except the concentrator ball mill which is based on a budget price · Concentrator construction price (including installation of LLI) is based on an EPC price from a contractor.
Concentrator non-process infrastructure (NPI)	· The capital cost estimates for concentrator NPI are based on prices/rates sourced from specialist engineering consultants or construction contractors for each type of non-process infrastructure.
Refinery	· All refinery LLI costs are based on firm prices, subject to any final scope changes identified by as engineering definition increases. · Refinery construction price (including installation of LLIs) based on a detailed cost estimate prepared by Hatch's Regional Estimating Lead for Australia-Asia. · Technology packages based on vendor quotes of varying maturity ranging from budget pricing to firm pricing.
Refinery non-process infrastructure	· The capital cost estimates for refinery NPI are based on prices/rates sourced from specialist engineering consultants, construction contractors or service vendors for each type of non-process infrastructure.
Owner's costs	· Owner's costs have been estimated by Covalent from internal and external inputs. Where vendor / supplier guidance is available it has been used in the estimate. Owner's costs are distributed among the Refinery, Concentrator and Corporate costs.
Contingency	· Contingency has been calculated through a rigorous Quantitative Risk Assessment (QRA) process involving a risk assessment of the capital cost and determination of uncertainty ranges for key cost elements.
Escalation	· An escalation estimate has been prepared using a monthly forecast commitment profile for the Project capital cost over the project period With escalation rate based on a weighted average over relevant commodities.

Source: Compilation based on Covalent(2020, 2021)

For the purpose of the estimate, the exchange rate assumption was maintained from the UIDFS (2020) to be 0.70US$:1.00AU$.

18.2 Contingency

A detailed, probabilistic QRA of the Project capital cost estimate was completed prior to finalization of the 2020 UIDFS (2020). The QRA process included workshops with multidisciplinary teams to assess risk factors applicable to various components of the capital cost estimate and define appropriate uncertainty ranges for each component based on its risk profile.

18.3 Operating Cost Estimate

Project operating costs are shown on a LoM basis as from commencement of stable operation. Operating cost estimates are from inputs provided by Covalent, consultants, vendors, formal/informal tender processes, and other market information. Costs are categorized as follows: Mine and Concentrator, Refinery Corporate Royalty and Depreciation

The total operating cost is estimated at US$4,989/t of LiOH. The distribution of operating cost is shown in Table 18-3 and summarises the make-up of the total cost per tonne of LiOH for the Project. The methodology to calculate the total cost per tonne considers the average production operating costs over LoM.

Table 18-3. Distribution of operating costs

Total LoM unit cost	share %
Mine and Concentrator	50%
Refinery[6]	39%
Corporate	7%
Royalties	4%
Total	100%

The operating cost reported is an updated estimate from the proposed estimation prepared by Covalent in the UIDFS (2020). The sole update was the mine plan that resulted from the reserves update performed during 2021 (Chapter 11 and Chapter 12 of this report).

The operating cost estimate for the Project was compiled from various sources – each best placed to estimate the cost for a portion of the overall estimate. Table 18-4 shows the sources of the various estimates. For the purpose of the estimate, the exchange rate assumption was maintained from such study at 0.70US$:1.00AU$.

[6] Refinery unit cost considers additional costs and credits arising from the sale of DBS or SSA. The total credit for DBS and SSA is equivalent to US$114 per tonne of LiOH.

Table 18-4. Sources of the various operating cost estimates

Operating cost category	Estimate source
Mining	· Mining physicals (i.e., mine plan) estimated by Covalent. · Mining costs estimated by IQE – expert mining estimators.
Concentrator	· Consumptions of reagents and utilities based on testwork conducted by Covalent and design information. · Prices based on vendor quotes of varying maturity ranging from budget pricing to firm pricing · Maintenance, general and administrative costs have been estimated by applying benchmark information and expected activity estimated by subject matter experts combined with vendor quotes where available. · Logistics costs based on tender responses and market information. · Labor based on detailed headcount review by subject matter experts and independent market data.
Refinery	· Consumptions of reagents and utilities based on testwork conducted by Covalent and design information. · Prices of key reagents based on Covalent forecast for indicator pricing and quotes received from vendors. · Other prices based on vendor quotes of varying maturity ranging from budget pricing to firm pricing. · Maintenance, general and administrative costs have been estimated by applying benchmark information and expected activity estimated by subject matter experts combined with vendor quotes where available. · Logistics costs based on tender responses and market information. · Labor based on detailed headcount review by subject matter experts and independent market data.
Corporate	· Based on detailed scoping of requirements to support the business by Covalent. Vendor pricing and budget quotes obtained where appropriate.
Royalty	· In accordance with the Mining Act and associated regulations, a royalty at five per cent has been applied to all the lithium concentrate sold or used as feedstock at the assumed market FOB price for spodumene concentrate.

Source: UIDFS and later updates (2020; 2021)

19 ECONOMIC ANALYSIS

The key financial metrics for the Project have been calculated using a purpose-built cash flow forecast model. The financial model forecasts expected cash flows over the Life of Mine and reflects the physical flow of lithium units based on the input process assumptions. The results are shown at a Project level and SQM's attributable portion is 50% of the amounts shown in this chapter.

The key assumptions are described in Section 19.1. The key outputs and sensitivities are presented in the following sections.

The economic analysis is inherently a forward-looking exercise based on assumptions and expectations in light of the available information, and are subject to risks, variables and uncertainties that may result in the actual results deviating from the expected outcomes.

19.1 Key assumptions

Most key assumptions are maintained from those used in the UIDFS (2020), including valuation date, discount rate, reagents prices, and exchange rate. Such assumptions were used for the purpose of evaluating the robustness and economic viability of the Project and do not represent a view of, and may differ from those used by, any of the joint venturers for their own valuation of the Project.

The key assumptions used in the financial model are outlined in Table 19-1.

Table 19-1. Key valuation assumptions

Key Valuation Assumptions		
Item	Unit	Value
Valuation date	Date	1 January 2021
Discount rate (real)	%	10
Tax rate	%	30.00
Foreign exchange US$:AU$	(:1)	0.70
Project Life	Years	51
Mine life	Years	50

The financial model assumes the valuation of the Project independently and does not take into consideration tax deductions from accumulated losses, if any, within SQM. Valuation is in real terms.

19.1.1 Production

The mine plan produces 83.7 million tonnes of ore as feed to the concentrator over LoM at varying grades. Spodumene concentrate is produced with an estimated average recovery of 77.2% per cent over the LoM to produce lithium oxide concentrate at a grade of 5.5 per cent. The concentrate is supplied to the refinery to produce a total of 2.37 million tonnes of LiOH (average of 50.3 ktpa) for the Project.

19.1.2 Revenue

The primary revenue source for the Project is LiOH, a small revenue contribution is generated from the sale of the co-products, SSA and DBS. In addition, during ramp-up of the Refinery the model assumes revenue is generated from the sale of excess spodumene concentrate.

The financial model conservatively assumed a LiOH price of US$11,000 per tonne of LiOH on a CIF basisand a spodumene concentrate price of US$550 per tonne of concentrate at 6% grade on a FOB basis.

The above prices are a conservative assumption used for the purpose of the valuation and do not represent a view or consensus of forward-looking prices or a commercial strategy for the Project by any of the joint venturers.

19.2 Valuation results

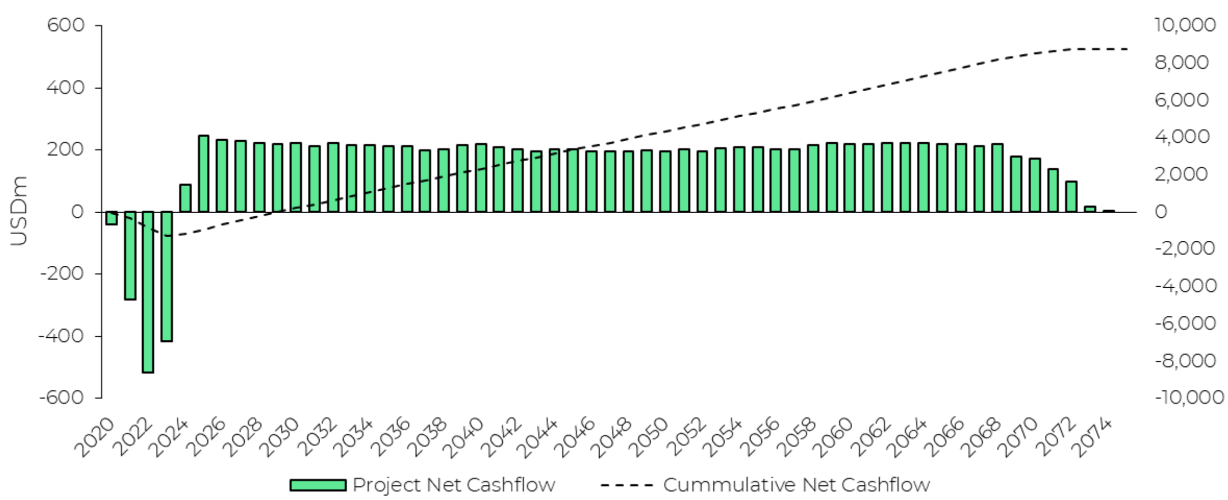
Based on the assumptions mentioned above, Table 19-2 shows the main financial outcomes for the Project. SQM's attributable portion of the net present value under such assumptions is US$288 million.

Table 19-2. Key financial outcomes

Key Project Metrics - LoM	Units	Mine Plan Optimization
NPV	US$ million	576
IRR	%	14.9
Payback	year	2029

Figure 19-1 shows the annual cashflow from the model over the life of the Project, where the attributable share for SQM is 50%.

Figure 19-1. Project annual cashflow



19.3 Sensitivity analysis

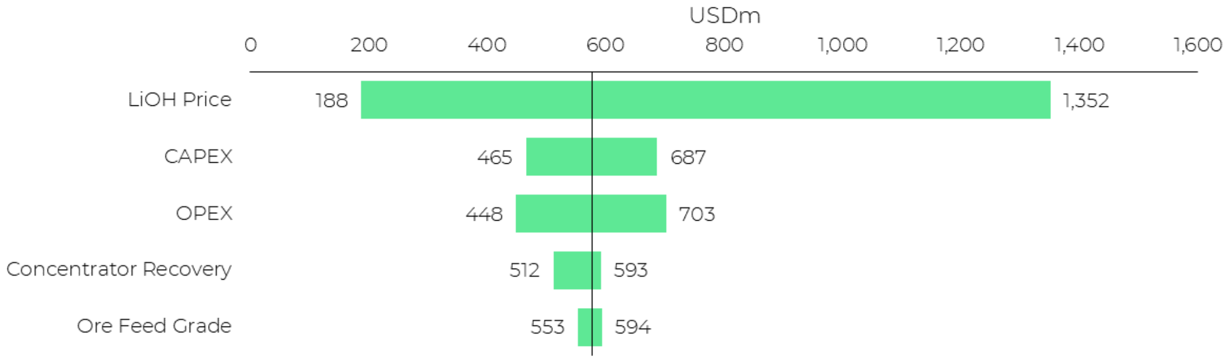
The objective of the sensitivity analysis is to provide visibility of the assumptions that present the key risks to the value of the Project. The analysis also identifies the skew of the impact of each assumption in terms of upside and downside to value. Table 19-3 and Figure 19-2 shows the sensitivity of the main issues that can impact the results of the project.

- LiOH price: This sensitivity assumes that the LiOH price decreases by US$1,500 per tonne of LiOH or increases by US$3,000 per tonne of LiOH.
- CAPEX: This sensitivity assumes that the total capital expenditure in the Project period increases or decreases by 10%.
- OPEX: This sensitivity assumes that the operating cost over the LoM increases or decreases by 10%.
- Concentrator Recovery: This sensitivity varies the recovery across the different process stages of the concentrator (+3 per cent / -7 per cent). An increase in recovery decreases the ore feed required and lowers the cost per tonne of spodumene. A decrease in recovery has the opposite effect and the potential for spodumene concentrate refinery feedstock deficits, which leads to lost LiOH production. This would be an extremely unlikely case over the life of mine as either the recovery issues would be resolved, or the capacity of the concentrator increased to avoid the adverse impact of lost LiOH production.
- Feed grade: This sensitivity varies the estimated lithium ore grade mined through the life of the Project (+0.05 per cent / -0.05 per cent). Increasing the lithium grade lowers the required volume of ore feed to the concentrator, increasing recovery and therefore decreasing the unit cost of the spodumene concentrate to yield the same amount of LiOH. Decreasing the lithium grade has the opposite effect. The result is slightly skewed to the downside as in some periods there is insufficient capacity in the concentrator to feed the refinery, resulting in lost LiOH production during these periods.

Table 19-3. Sensitivity summary

Sensitivities		Sensitivity		
Scenarios	Unit	Base	Downside	Upside
LiOH price	US$/t	11,000	-1,500	+3,000
CAPEX	%	100	+10	-10
OPEX	%	100	+10	-10
Concentrator recovery	%	77.2	70.6	80.0
Ore feed grade	% Li_2O	1.57	-0.05	+0.05

Figure 19-2. Valuation sensitivity outcomes



20 ADJACENT PROPERTIES

On 21 December 2017 an agreement was entered into between Montague, Kidman Gold, MH Gold and SQM, granting to MH Gold and SQM Australia (the Joint Venturers) certain rights to access, explore, develop, and mine lithium and other minerals associated with pegmatites (excluding gold) (Lithium Rights Agreement, LRA) in licenses adjacent and around the Project.

Notwithstanding the above, it is worth noting that, except for M77/1065, the LRA does not include any of the Project Tenements immediately required for the Project.

No proprietary information associated with neighboring properties was used as part of this study. Other exploration areas exist on the Mt. Holland property area, and there is potential for disclosure of additional materials from these areas as they are developed. At the moment of elaboration of this report, no adjacent property requires any disclosure under the S-K 1300 regulations. The area is a historical mining district however the QPs are not aware of any other mineral exploration occurring on adjacent properties for Lithium or other commodities.

21 OTHER RELEVANT DATA AND INFORMATION

The QP is not aware of other relevant data and information that is not included elsewhere in this report. The QPs believe that all material information has been stated in the above sections of the TRS.

22 INTERPRETATION AND CONCLUSIONS

22.1 Results

22.1.1 Geology and Resources

Sufficient data have been obtained through various exploration and grade control drilling programs in the main property. Exploration techniques and QAQC procedures employed on the project are appropriate and sufficient to support the mineral resources according to the S-K 1300 regulations. Geology and mineralization are well understood across the deposit and are sufficient to support a resource estimation and a feasibility study. In the QP's opinion, the mineral resources stated in this report are appropriated for public disclosure and meet the definitions established in the SEC guidelines and industry standards.

22.1.2 Reserve and Mining Methods

The Ore Reserves Estimate is in line with previous Ore Reserves for the project (2018). The mine plan gives a Life of Mine of approximately 50 years at a production rate of around 2 Mt/year of ore, with a total material movement 511 Mt (including waste material). The Competent Person recognized that further approvals are required to mine beyond the 10 years to the full Life of Mine of the Ore Reserves. It is anticipated that all impacts of the Life of Mine project beyond the first 10 years can be readily managed and offset as required.

In the QP's opinion, the mineral reserve stated in this report are appropriated for public disclosure and meet the definitions established in the SEC guidelines and industry standards.

22.1.3 Mineral processing and Metallurgy

The metallurgical test carried out supports the forecasted yield for the concentrator and the refinery. The physical, chemical, and metallurgical tests carried out to date by Covalent have been adequate to establish a suitable process to produce spodumene concentrate and lithium hydroxide. In the QP's opinion, the metallurgical testing and process designed by Covalent are adequate to establish the modifying factors needed for a reserve definition.

22.1.4 Environmental, Social and Governance

In terms of environmental studies, permits, plans, and relations with local groups, the Project submitted an Environmental Impact Assessment (EIA) complying with the established contents and criteria, and the legal requirements of current environmental regulations in Western Australia. The approvals for the Project have been received and the construction of the facilities are under way. The outstanding approval to build the TSF is on track and at the moment of elaboration of this report is not considered to represent a significant risk for the Project.

In addition, the project committed to some ongoing monitoring measures (including groundwater sampling, soil analysis and vegetation health monitoring) to detect any effects on the environment them as a result of the project implementation. This will allow the project owner to implement controls and mitigations measures in the unlikely event that project related impacts were identified.

22.2 Significant Risks

- Resource: While the resource has been extensively drilled and tested and the nature of the mineralization consistent and apparently well understood, there is a risk that the contained metal in the resource has been misestimated, that the metallurgical performance is not fully representative of the whole rock mass and the reported values cannot be extracted.
- Product sales prices: the price of Lithium Hydroxide is a forecast based on predicted supply and demand changes for the lithium market overall. There is considerable uncertainty about how future supply and demand will change, which will materially impact future Lithium Hydroxide prices. The reserve estimate is sensitive to the potential significant changes in revenue associated with changes in Lithium Hydroxide prices.
- Mining dilution and mining recoveries: The level of ore loss and dilution applied to the production schedule assumes a very selective mining method on the ore/waste contact. If the planned level of selectivity cannot be achieved there will be either higher ore loss and/or an increase in the Fe_2O3 concentration due to dilution. This would potentially introduce more waste into the plant feed, which would decrease the feed grade, slow down the throughput and reduce the metallurgical recovery.
- Impact of currency exchange rates on production cost: costs are modeled in AU$ and converted to US$ within the cash flow model.
- Operations risks: There are many potential operational risks ranging from the inability to hire, train and retain workers and professional necessary to conduct operations, to poor management. The lithium industry is in expansion, and this could lead to a personnel shortage. While similar operations are conducted in Western Australia, there is no reason to believe these risk factors cannot be eliminated.
- The impact of exceptional weather events or climate change that could negatively impact operations.
- The impact of exceptional pandemics events like COVID-19.
- The impact of possible war scenarios that could affect the market.
- Processing plant and refinery yields: The forecast assumes that the concentrator and refinery will be fully operational and that the estimated yield assumptions are achieved. If one or more of the plants does not operate in the future, the cost structure of the operation will increase. If the targeted yield is not achieved, concentrate production will be lower. Both outcomes would adversely impact the mineral reserves.

22.3 Conclusions

The Project, currently in construction, has been evaluated in a feasibility study, UIDFS (2020), and its mineral resources and reserves updated with further studies carried out during 2021. Those studies confirm that there are no material changes from the 2020 evaluation. The evaluated project corresponds to an open pit mine, a concentrator plant to produce Spodumene Concentrate, and a refinery to produce lithium hydroxide.

The Qualified Persons consider that the exploration data accumulated available is reliable and adequate for the purpose of the declared mineral resource and reserve estimates at a feasibility study level. The report was prepared in accordance with the resource and reserve classification pursuant to the SEC's new mining rules under subpart 1300 and Item 601(96)(B)(iii) of Regulation S-K (the "New Mining Rules").

23 RECOMMENDATIONS

No recommendations are given at this stage of the project.

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25 RELIANCE ON INFORMATION PROVIDED BY REGISTRANT

Table 25-1 provides a list of the information provided by SQM (registrant) for matters discussed in the Technical Report Summary

Table 25-1 Information provided by the Registrant (SQM) or Covalent.

Classification	Technical Report Summary Section	Reliance
Legal Opinion	Section 3 Property Description and Location	Information and documentation regarding mineral titles, surface land agreements, current permitting status, royalties and other agreements. The Qualified Person is not qualified to offer a legal perspective on SQM's surface and title rights but has summarized this document and had SQM personnel review and confirm statements contained therein.
General Information	Section 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography	Information about the Project was provided by Covalent. Information consisted of consultant and Covalent reports, and correspondence.
General Information	Section 5 History	Historical data provided by Covalent and Kidman Resources, primarily previous Technical Reports.
Marketing Studies	Section 16	The chapter 16 was provided by the registrant.
Environmental Matters	Section 17	The QP was provided by SQM with environmental information (Baselines, Permitting, Social or Community impacts, Mince Closure) prepared by Covalent. An independent validation was not performed.
Macroeconomic Trends	Section 19.	Same exchange rates assumptions as the UIDFS (2020) were used for purpose of this section. These rates were broadly in-line with the exchange rates in that period.
Other	Chapter 18 and 19	The Registrant's ability and willingness to provide the required operating capital and funding for ongoing capital investment in the project.

The QPs consider it reasonable to rely upon the Registrant for the above information based on QPs' past and ongoing interactions with the subject matter experts in these areas employed or engaged by the Registrant. Further, the QP's have taken all appropriate steps, in their professional opinion, to ensure that the above information provided by the Registrant is accurate in all material aspects and have no reason to believe that any material facts have been withheld or misstated.

A Glossary

AHD:	Australian Height Datum
AIG:	Australian Institute of Geoscientists
AusIMM:	Australasian Institute of Mining and Metallurgy
CFR:	Cost and Freight
CIF:	Cost, Freight and Insurance
CoG:	Cut-off Grade
Covalent:	Covalent Lithium Pty
DBS:	Delithiated Beta Spodumene
DAWE:	Department of Agriculture, Water and the Environment
DEWR:	Department of Water and Environmental Regulation
DMIRS:	Department of Mines, Industry Regulation and Safety of the Government of Western Australia
FFMP:	Fibrous minerals management plan
FGB:	Forrestania Greenstone Belt
FID:	Final Investment Decision
FOB:	Free on Board
GHG:	Greenhouse Gas
IDFS:	Integrated Definitive Feasibility Study
JORC:	Joint Ore Reserve Committee of the AusIMM, AIG and MCA
JV Partners:	SQM and WesCEF in conjunction
KDR:	Kidman Resources
Kidman Gold:	Kidman Gold Pty Ltd
Ktpa:	Kilotonnes per Annum
LIMS:	Low Intensity Magnetic Separator
LoM:	Life of Mine
LRA:	Lithium Rights Agreement
MC:	Mining Committee
MCA:	Minerals Council of Australia

MS1118:	Ministerial Statement 1118
MRE:	Mineral Resource Estimate
QP:	Qualified Person
RAB:	Rotary Air Blast
RC:	Reverse Circulation
ROM dump:	Run of Mine Ore Stockpile
SCGB:	Southern Cross Greenstone Belt
SGAM:	Spectral Gamma
SME:	Subject Matter Experts
SQI:	Spodumene Quartz Intergrowth
SSA:	Sodium Sulfate Anhydrous
TEM:	Transient Electromagnetic
TSF:	Tailings Storage Facility
UIDFS:	Updated Integrated Definitive Feasibility Study
VO:	Value Optimization
WHIMS:	Wet High Intensity Magnetic Separator
WRL:	Waste Rock Landform