



Arcadia Lithium Project Confirmed as World Class Deposit

HIGHLIGHTS:

- **Staged Optimised Feasibility Study (Staged OFS) confirms strong technical and economic viability of Arcadia under a staged development pathway**
- **Staged OFS completed by external study manager and leading engineering consulting firm, Lycopodium, to +/-12.5% capital expenditure estimate accuracy, building on the technical assessments undertaken in the 2019 DFS**
- **Progressive construction of two 1.2 Mtpa modules delivers lower upfront capital costs, with reduced execution and market risk**
- **Ore Reserve increase from 37.4Mt to 42.3Mt, reflecting increased pricing offset by lower metallurgical recoveries**
- **De-risked Project execution, process flowsheet and market integration with construction and operation of Arcadia Pilot Plant and qualification samples sent to customers**
- **Project economics expected to be further improved in Direct-to-2.4 Mtpa Optimised Feasibility Study (Direct OFS), due for completion in Q4 2021**
- **Partnership process being managed by Azure Capital and Vermilion Partners remains on-track, with strong interest from several groups focused on the Direct OFS outcomes**

STAGED OPTIMISED FEASIBILITY STUDY OUTCOMES

Key metric (100% basis)	Unit	Stage 1 (1.2 Mtpa) Yrs 1-4	Stage 1+2 (2.4 Mtpa) Yrs 5-20	LOM
Annual process throughput	Mtpa	1.20	2.40	2.40
Initial life-of-mine (Ore Reserve)	years			20.00
Average head grade (Ore Reserve)	% Li ₂ O			1.19
Average production – chemical spodumene	ktpa conc.	73.8	146.0	133.3
Average production – technical petalite	ktpa conc.	42.5	95.5	86.0
Average production – chemical petalite	ktpa conc.	10.6	23.9	21.5
Pre-production capital expenditure	US\$m	140	72	212
Post tax Investment to first positive cash	US\$m	148		148
Sustaining capital expenditure	US\$m			39
All-In-Sustaining-Cost (AISC)	US\$/t conc.	405	383	386
IRR (pre-tax, real basis, ungeared)	%			35%
Pre-tax NPV_{10%} (real basis, ungeared)	US\$m			465
Pre-tax NPV_{10%} (SC6 US\$1,000/t FOB)	US\$m			699
Average Annual EBITDA (post-tax)	US\$m	69	107	97
Project net cashflow (post-tax)	US\$m			1,468

Cautionary Statement: ARCADIA PROJECT STAGED OPTIMISED FEASIBILITY STUDY (OFS)

The Staged OFS production schedule is comprised entirely of Ore Reserves and contains no Inferred Resource material.

The Mineral Resources underpinning the Ore Reserve and production target in the Staged OFS have been prepared by a Competent Person in accordance with the requirements of the JORC Code (2012). The Competent Person's Statement(s) are found in the section of this ASX release titled "*Competent Person's Statement(s)*". For full details of the Mineral Resources estimate, please refer to Section 1.5 of the Staged OFS Executive Summary. Prospect confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.

This release contains a series of forward-looking statements. Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this release regarding Prospect's business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as Mineral Resource estimates, Ore Reserve estimates, market prices of metals, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, and statements that describe Prospect's future plans, objectives or goals, including words to the effect that Prospect or management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by Prospect, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

Prospect has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this ASX release. This includes a reasonable basis to expect that it will be able to fund the development of the Arcadia Project upon successful delivery of key development milestones and when required. The detailed reasons for these conclusions are outlined in the section of this ASX release titled "*Funding pathway*". While Prospect considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Staged OFS will be achieved.

To achieve the range of outcomes indicated in the Staged OFS, pre-production funding in excess of US\$148m will likely be required. There is no certainty that Prospect will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Prospect's shares. It is also possible that Prospect could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Arcadia Project. These could materially reduce Prospect's proportionate ownership of the Arcadia Project.

This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including consideration of all JORC modifying factors on the Ore Reserve, production target and forecast financial information are based have been included in this ASX release, including the Staged OFS Executive Summary (and summarised again in Appendix A).

Prospect Resources Limited (ASX: PSC, FRA:5E8) (**Prospect** or **the Company**) is pleased to announce the results of the Staged Optimised Feasibility Study (Staged OFS) on its 87%-owned Arcadia Lithium Project (**Arcadia** or **the Project**).

The Staged OFS reflects the strong potential of Arcadia to become a compelling long life, large scale, hard rock open pit lithium mine in Zimbabwe, Southern Africa. It confirms that the Project is among the best in the world for scale and cost of production when compared to existing operations and other prospective projects. A key competitive advantage lies in the quality of the lithium concentrate products, being high in grade and very low in impurities.

Arcadia is a relatively simple and robust development, with high grades and low strip ratios enhancing financial outcomes. The Project delivers outstanding returns independent of by-product credits and the lithium price environment.

The staged development pathway outlined in this Staged OFS presents a lower upfront capital hurdle, with an approach that addresses all technical, commercial and operating risks, and delivers a progressive ramp up and ability to further optimise Stage 2 (delivering 2.4 Mtpa throughput).

This study has been prepared by leading engineering consulting business, Lycopodium, with assistance from Prospect and selected external contributors. Where required Lycopodium provided direction in the planning and execution of programmes designed to reduce technical risk, resulting in increased confidence and accuracy in process development, engineering design and cost estimation.

Forecast project economics are expected to be substantially improved via the direct 2.4Mtpa development pathway, which is currently the subject of a detailed study (the **Direct OFS**) scheduled for completion in Q4 2021. Current engagement with a range of strategic groups under a formal partnership process (being managed by Azure Capital and Vermillion Partners) is focused on the development and financing of Arcadia under the Direct OFS.

Prospect Managing Director, Sam Hosack, commented: *“It is very pleasing to have a viable alternate to the direct development pathway, being a progressive modular build to 2.4 Mtpa, now validated by the Staged OFS undertaken by Lycopodium. This study confirms Arcadia as one of the only independent, shovel-ready projects globally without offtake totally locked up. It highlights that Arcadia is one of the world’s premier hard rock lithium assets, with outstanding projected returns under a more conservative development pathway.”*

“The OFS details our clear differentiation with a range of potential product markets, and customers versus traditional spodumene projects. Even at the smaller initial scale, the Lycopodium results demonstrate a highly competitive forecast operating costs and margins, reflecting prices for technical petalite at a significant premium to traditional chemical grade spodumene concentrate pricing.”

“With strong lithium market conditions, and with renewed interest from potential partners, we are now completing the work on the Direct OFS pathway case before funding decisions are made.”

Arcadia: A world-class lithium mine

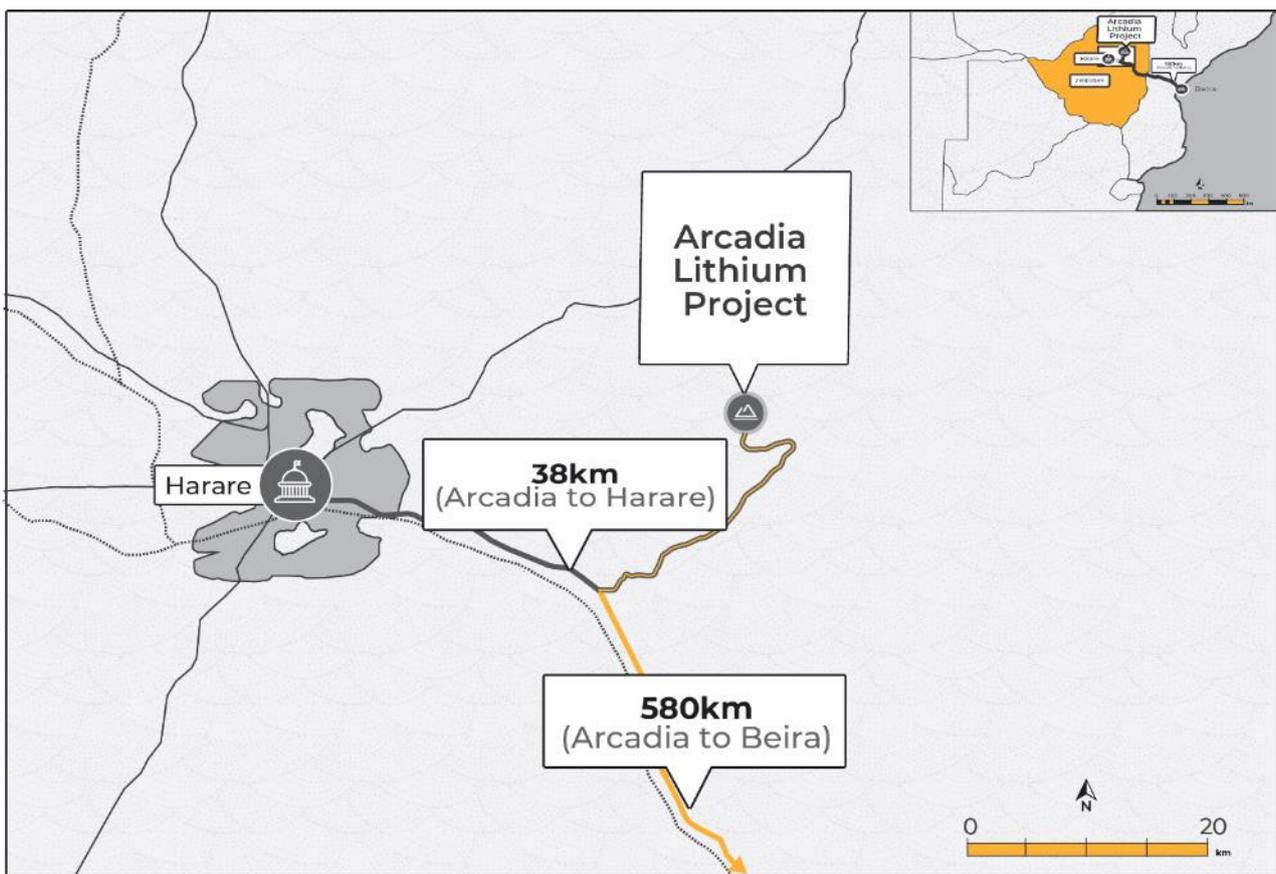
Brief Overview

Arcadia is located in the Mashonaland East District of Zimbabwe, approximately 38km east of the Capital, Harare (17°46'26" S 31°24'34" E). It is positioned within an established mining jurisdiction, where mining and export of lithium products has been ongoing for over 60 years.

Arcadia is owned by Prospect, through its 87% owned subsidiary, Prospect Lithium Zimbabwe (pvt) ltd (**PLZ**). The Project occupies an area of more than 9km² and incorporates historical lithium and beryl workings, and the existing Pilot Plant producing technical grade petalite samples.

The Project is close to major highways and railheads. The nature and location of the Port of Beira (a regional export hub located less than 600km from Arcadia by road transport) is also a key advantage. Arcadia's proximity to Harare provides access to a source of skilled and semi-skilled labour, and qualified technical and commercial personnel. Arcadia is situated in close proximity to key infrastructure, including being 11km from the major power transmission line between the region's largest hydro-electric facilities, providing ease of interconnection, and reliability of supply.

Figure 1: Location of the Arcadia Project



Planned development of Arcadia involves bulk open pit mining of a large Lithium-Caesium-Tantalum (LCT) pegmatite followed by crushing, dense media separation, milling, froth flotation and magnetic separation to produce lithium and tantalum concentrates.

In November 2018, Prospect released a Definitive Feasibility Study (**DFS**) on the Project. Subsequent work on the Mineral Resource, mine design, metallurgical testing programmes and product marketing resulted in an Updated DFS completed in late 2019.

The Updated DFS embedded a market-driven approach in which the production and sale of premium ultra-low iron, technical grade petalite concentrate was a key driver of development strategy. This strategy fed into mine planning and in turn influenced the design of the primary petalite recovery circuit such that production of technical grade petalite was maximised.

The Arcadia Staged OFS

The capital estimate of the Staged OFS has been prepared in accordance with the Lycopodium Cost Estimating Procedures and fulfils the requirement of the AACE Class 2 Estimate (“Bankable Feasibility Estimate”) with an accuracy range of $\pm 12\%$. The study manager is Lycopodium (process plant design and review, plant capital and operating cost estimates), with key external study consultants including CSA Global (ore reserve, mine planning), Practara Ltd (geotechnical services), SRK Consulting (environmental assessment) and Roskill Consulting (price forecasting).

The Staged OFS has confirmed the strong technical and economic viability of conventional open pit mining and gravity processing of the world-class Arcadia project via a staged development to 1.2Mtpa (Stage 1), and then 2.4Mtpa (Stage 2) throughput.

Key Arcadia physical outcomes

A Measured, Indicated and Inferred Mineral Resource estimate for Arcadia of 72.7 million tonnes at 1.11% Li_2O was published in an ASX release dated 25 October 2017. The resource model was updated to include drilling conducted since 2017. There was no change to the overall tonnage but resulted in a change to the grade, due to the increased accuracy of the modelling of the orebody. Both the 2017 declaration of resources and the 2021 declaration have reported in accordance with the JORC Code (2012).

Table 1: Arcadia Mineral Resource Estimate 0.2% Li_2O Cut-off (October 2021)

Category	Tonnes (Millions)	Li_2O %	Ta_2O_5 ppm	Contained Tonnes Li_2O	Ta_2O_5 (Mlbs)
Measured	15.8	1.12%	113	176,900	3.9
Indicated	45.6	1.06%	124	483,600	12.5
Inferred	11.2	0.99%	119	111,300	2.9
Total	72.7	1.06%	119	770,200	19.4

Notes:

- Figures above may not sum due to rounding

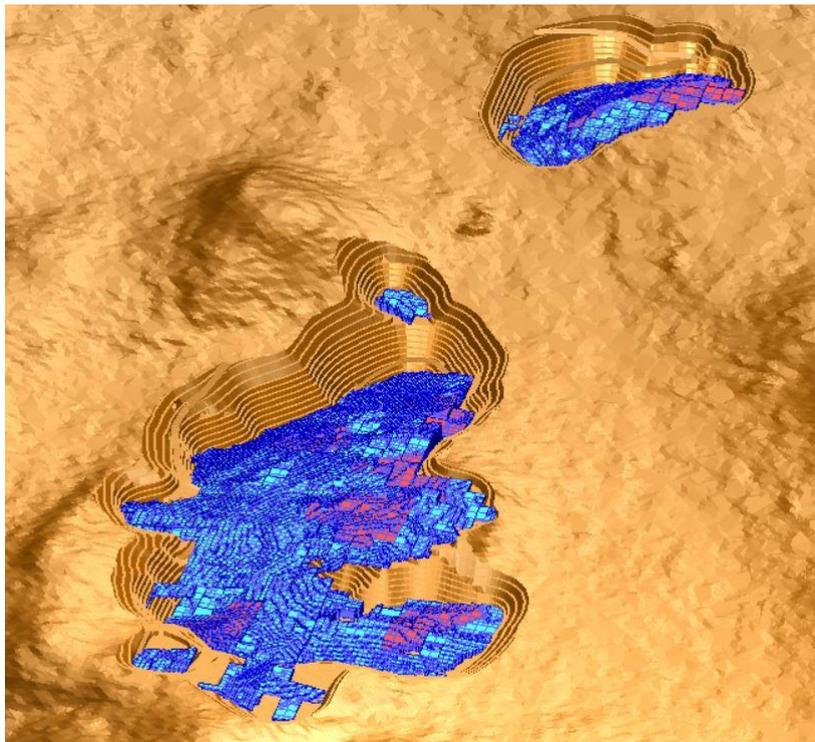
CSA Global undertook open pit optimisation, open pit designs, production scheduling and reporting of an Ore Reserve estimate in accordance with the JORC Code (2012 Edition).

Table 2: Arcadia Lithium Project Ore Reserve estimate (October 2021)

Category	Tonnes (Mt)	Grade (Li ₂ O %)	Contained Li ₂ O (Mt)	Ta ₂ O ₅ (ppm)	Contained Ta ₂ O ₅ (Mlb)
Proved	11.8	1.25	144,000	114	3.0
Probable	30.5	1.17	357,000	123	8.3
Total Ore Reserve	42.3	1.19	504,000	121	11.3

The Ore Reserve estimation process consisted of modification of the Mineral Resource model to a mining model by adding several mining related attributes and assumptions. This was followed by open pit optimisation to define the new economic mining envelopes and subsequent detailed in pit designs, mine scheduling and input into a financial model.

Figure 2: Arcadia pit design



The Ore Reserve for the final pit design is shown above in Figure 2. The life-of-mine (LOM) strip ratio is approximately 3.4 (waste tonne to ore tonne). The Ore Reserve is the economically mineable part of the Measured and Indicated Resource. It includes mining dilution of 5% and allowance for losses in mining of 5%. Appropriate assessments and studies have been carried out and include consideration of modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and government factors.

Table 3: Key Staged OFS physical outcomes

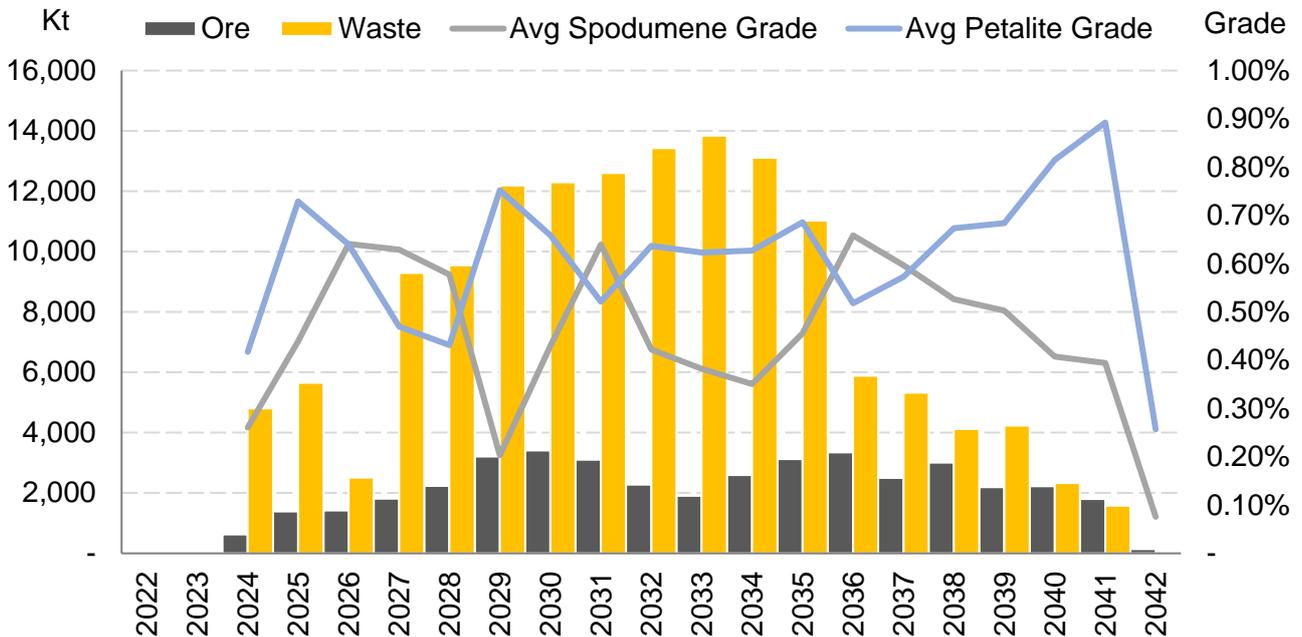
Key metric (100% basis)	Unit	Stage 1 (1.2 Mtpa)	Stages 1 + 2 (2.4 Mtpa)	LOM
Total ore throughput	Mt	4.03	38.31	42.34
Annual process throughput	Mtpa	1.2	2.4	2.4
Initial life-of-mine	years			20.0
Average strip ratio (waste: ore)	t:t	4.9	3.4	3.4
Average head grade	% Li ₂ O	1.20%	1.19%	1.19%
Recovery				
Spodumene	%			78.2%
Petalite	%			31.3%
Tantalum	%			27.0%
Total Production				
Chemical spodumene	kt conc.	295.3	2,338.7	2,634.1
Technical petalite	kt conc.	170.1	1,530.1	1,700.2
Chemical petalite	kt conc.	42.5	382.5	425.1
Average Annual Production				
Chemical spodumene	ktpa conc.	73.8	146.1	133.3
Technical petalite	ktpa conc.	42.5	95.5	86.1
Chemical petalite	ktpa conc.	10.6	23.8	21.5

Mining

The Arcadia deposit is to be mined as a conventional truck and shovel open pit operation via contract mining. Waste dumps will be located as close as possible to pit exit points to minimise haulage profiles without disrupting the access to the minable resource or crushing plant.

The mining schedule developed is to suit the strategy of commencing ore treatment operations at 1.2 Mtpa and subsequently upgrading to 2.4 Mtpa after 4 years of operation. Maximum annual mining rates are just under 14Mtpa of total material (waste plus ore). Arcadia's mine schedule is outlined in Figure 3.

Figure 3: Arcadia mine schedule



The mine design is further based on a processing plant capable of producing several lithium mineral concentrates, as well as a tantalite concentrate, receiving ROM ore at an initial rate of 100 000 tonnes per month (tpm), subsequently being expanded to 200 000 tpm from Year 4.

Processing

The key focus of processing strategy in the Staged OFS (and Direct OFS) process has been the further reduction of risk and the increase of certainty for Arcadia processing. The Staged OFS is based on a global lithia recovery of 51.3%, comprising assumed (spodumene recovery of 78.2% and assumed petalite recovery of 31.3%), with assumed tantalum recovery of 27.0%. These assumptions are based on the extensive testwork undertaken to date, as well as the learnings from the pilot plant operation.

Since publishing the 2019 Updated DFS, additional variability testing has been done on the 2 main ore bodies (Main Pegmatite and Lower Main Pegmatite), which constitute > 79% of the Ore body. This extensive testwork included flotation configuration changes and optimum flotation parameters under locked cycle conditions.

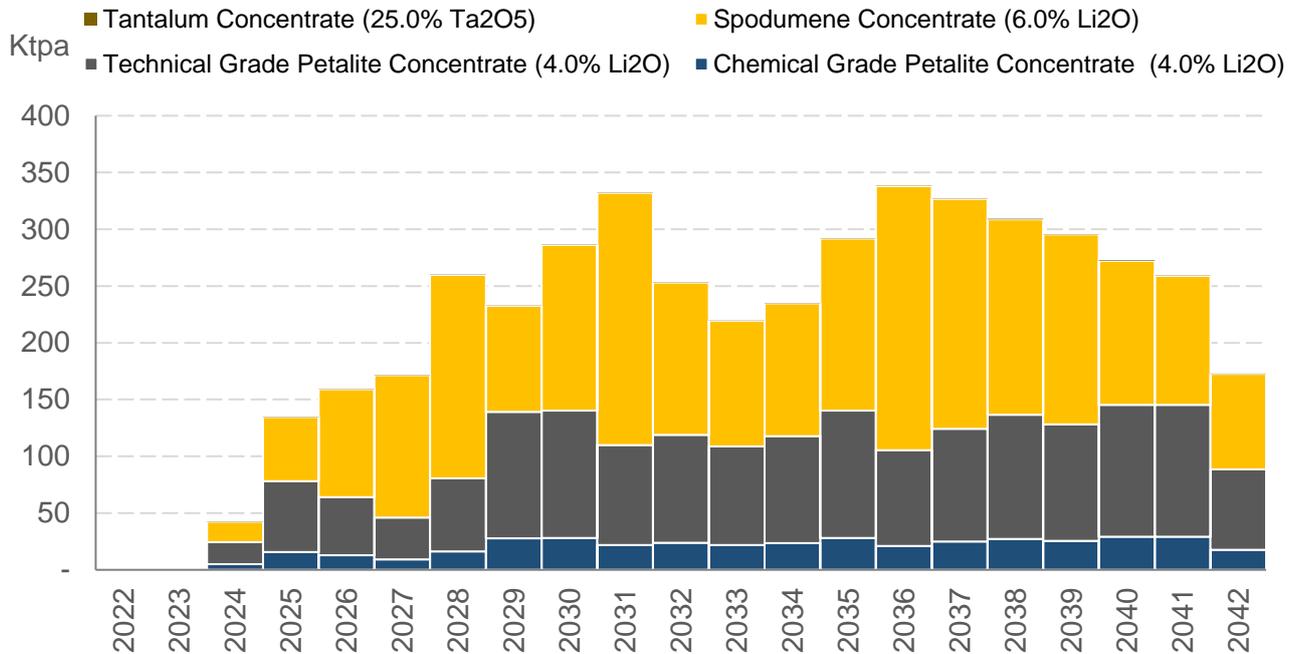
Locked cycle testwork is a standard process requirement to assess the consequential effects of process recycle streams on the circuit mass balance and recoveries while also serving as a conventional way to mitigate flotation circuit design risk. The study has yielded lower LOM spodumene recoveries of 78.2% compared to the previous assumption of 84.5%, utilised in the 2019 DFS. These spodumene recoveries are now more in line with peers in the global lithium industry. Opportunities do exist for further recovery optimisation before entering the detailed Engineering design phase.

Split Dense Media Separation (**DMS**) variability testing which sought to confirm technical grade petalite and chemical grade petalite production from the coarse and fines fraction respectively were

completed. The results of this testing have confirmed the ability of DMS processing to produce the required product specifications and LOM petalite recoveries have only marginally changed from the 2019 DFS level of 31.7%, to the current assumption of 31.3%.

Arcadia's production schedule is outlined in Figure 4.

Figure 4: Arcadia production schedule



Forecast average LOM production is 133kt per annum of spodumene concentrate, 86kt per annum of technical grade petalite concentrate and 21kt per annum of chemical grade petalite concentrate, with a peak of 338 kt per annum total volume. An initial ramp-up of six months has been incorporated for the processing plant to obtain Stage 1 nameplate capacity of 1.2Mtpa and assumed recovery levels.

Conventional beneficiation techniques including dense medium separation (DMS) to recover petalite, gravity-based processes to recover tantalite, and froth flotation to recover spodumene have been retained. Key areas of later testing included the use of high pressure grinding rolls (HPGR) technology, ongoing DMS optimisation and locked cycle spodumene flotation. Testwork was carried out on Main Pegmatite (MP) and Lower Main Pegmatite (LMP) ore zones during 2019 and 2020, and the data derived from these programmes has been applied by Lycopodium to current process and engineering design. Optimisation of tantalum recovery was continuing at the time of study preparation.

Two-stage crushing followed by HPGR has been selected to achieve the sub 5 mm crush size required to achieve adequate liberation of petalite for primary recovery by DMS. DMS feed preparation is based on secondary crusher product feeding HPGR crushing operating at medium pressure. Approximately 68% of plant feed will report to DMS at a bottom cut-off size (BCOS) of 0.6 mm. Primary crushing capacity will be set at 2.4 Mtpa from the outset.

The target grade for petalite products is 4% Li_2O , i.e. 82% petalite. DMS testwork has demonstrated that 80% of all DMS petalite concentrates produced from Arcadia ores coarser than 1.7 mm will meet specifications for technical grade product, with Fe_2O_3 substantially less than 0.05%. The remaining 20% finer petalite at -1.7 mm +0.6 mm will be suitable as chemical grade product. Recoveries of petalite to Technical Grade and Chemical Grade products are expected to be 25% and 6% of plant feed petalite respectively.

The sub-millimetre spodumene grain size limits recovery of spodumene by DMS. Consequently, all ore post gravity recovery will report to the flotation circuit where spodumene is effectively recovered at a grind size P100 of 0.212 mm (P80 0.150 mm). Fatty acid flotation of spodumene is widely practised in the lithium beneficiation industry and Arcadia will be no exception in this regard. The target grade for spodumene concentrate is 6% Li_2O ; i.e. 75% spodumene. Based on flotation data accumulated to date, expected spodumene recovery to concentrate is about 81% for LMP ore and about 55% for MP ore. The iron content of spodumene concentrate is expected to be about 0.3% to 0.5% Fe_2O_3 . Spodumene concentrate will be cleaned, and upgraded, by employing mica flotation at low pH followed by WHIMS to reduce iron contamination. The mica concentrate will be set aside pending potential identification of a potential commercial opportunity to realise value from this product.

Tantalite will be recovered in a dedicated spiral circuit placed in the flotation tailings stream. The rough tantalite will be upgraded to a saleable product containing approximately 25% Ta_2O_5 by the use of conventional gravity concentration methods and magnetic separation. Test data suggest tantalite recovery at 27% may be achieved. However, as at the date of publishing, ongoing confirmatory work remains in progress as at October 2021.

The current Arcadia flowsheet is detailed in Figure 5 below.

Site layout and access

The site layout shown in Figure 6 has been optimised from the 2019 Updated DFS, driven largely by the typical economic imperative to restrict waste and ore haulage distances. Arcturus Road is the sealed road from Harare to the Arcadia site, with access to Arcadia from Arcturus via a 7km unsealed road providing current access to site.

Figure 6: Arcadia site layout



Power and water supply

Power for the Arcadia site is to be sourced from the ZETDC Atlanta 132 kV substation comprising 5 feeder bays in use with an equipped spare 20 MW bay is situated approximately 9.5 km from the Project site. PLZ has paid for and secured a dedicated 33 kV, 20 MW spur line from the Atlanta substation. The peak electrical load requirement of the operation has been estimated to be approximately 18.5 MVA.

High Tension (HT) power will feed into the local substation built near the plant to centralise power distribution. Motors above 400 kW will be rated for 11 kV whilst all other electrical equipment will be connected to a 400 V feed. Electrical equipment and installation at Arcadia will comply with relevant International Electrotechnical Commission (IEC) standards. The existing substation capacity exceeds peak demand requirements of a 2.4 Mtpa plant.

Site water requirements will be met by the collection of run-off and abstraction of raw water from bores within the Project mining lease area, which are of adequate volume and quality for Arcadia production needs. Additional availability of water is via the Chinyika dam, situated less than 4 km away from Arcadia, which has an 8.1 million cubic meter capacity and provisional supply arrangements agreed.

Product transport and export

Arcadia is located 38km east of Harare, Zimbabwe, and has access to considerable existing infrastructure and utilities. Arcadia aims to export 127,000 and 265,000 tonnes of product per year during Project Stages 1 and 2, respectively. Prospect's existing offtake agreements call for settlement as FOB Beira, Mozambique. Prospect completed a logistics report during 2019, which investigated road and rail options for transport of product to port.

This found the road network to be the most suitable option. The 22km route from site via Goromonzi district to the Harare-Mutare Road has been identified as the shortest and quickest route to the Mozambique Port of Beira. The existing road includes a 12km stretch of gravel followed by a 10 km stretch of tar. The 12km gravel stretch of road will be upgraded and maintained to cater for construction vehicle access and for concentrate export. Arcadia's route to the port of Beira is outlined in Figure 7 below.

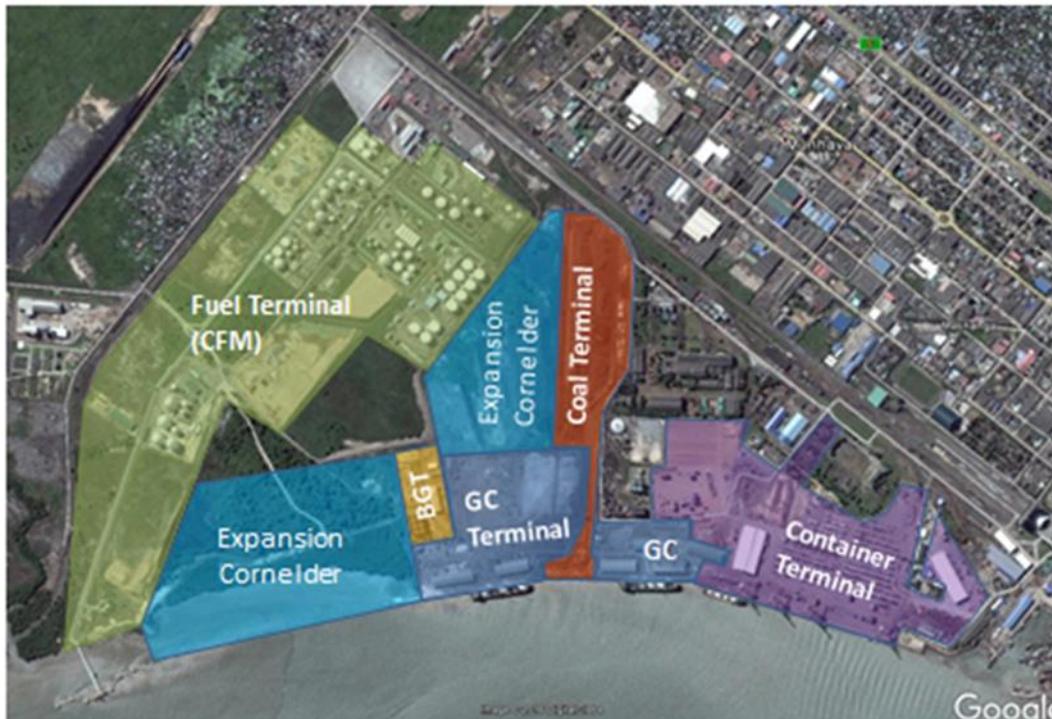
Figure 7: Arcadia to the port of Beira overview



The existing national highway between Harare and the Forbes border post at Mutare can accommodate the vehicles that will be added to the road network. Similarly, the highway from the Forbes border post to the Port of Beira is structurally sound. Both sections of roads have been upgraded within the last decade and are well maintained.

All lithium concentrates are to be transported in 1 tonne bulka bags by flat top trucks. Cornelder is a major port operator and has been operating the Beira port for more than 20 years (and has won the contract for a further 25 years). Beira is a modern port with substantial digital tracking systems and capability. The current port layout is displayed in Figure 8.

Figure 8: Beira port terminals



Beira port can accommodate breakbulk vessels up to 30,000 dmt with a maximum draft size of 12m. The port can handle breakbulk cargo from both road and rail with a typical loading rate of 2,500 to 5,000 tonnes per day. The port has 3 x 8,000m² storage sheds that are utilised on a first come first serve basis.

Offtake Agreements

Prospect and Sinomine Resource (Hong Kong) International Trading Co., Limited (Sinomine) have entered into an offtake agreement for a term of seven years to deliver 48,160 lithia units (Li₂O), equating to 6,880 lithia units per annum.

Under the Sinomine offtake agreement, Prospect is entitled to increase the quantities of spodumene and decrease the quantities of petalite provided the lithia units of the combined spodumene and petalite concentrates meet the lithia units specified.

Sinomine has agreed to a pre-payment of US\$10 m upon the ball mill being delivered and bolt installed during the construction phase of the project.

If either party elects to terminate the offtake agreement, it must pay an agreed liquidated damages sum to the other party.

For further information please refer to ASX announcement on 4 April 2018.

Prospect and Sibelco N.V. (Sibelco) have entered into an offtake agreement for a term of seven years to deliver up to 100,000 tonnes per annum of technical grade petalite.

Under the Sibelco offtake agreement, the parties will annually agree binding delivery of quantities, pricing and end customer contract terms for the following year. Prospect and Sibelco are to share end-customers sales receipts in agreed proportions after recovery of their respective costs and payment to Prospect will be through an Irrevocable Letter Of Credit.

Prospect may terminate the contract if Sibelco does not purchase at least 10,000 tonnes of product in each of two successive quarters for any reason other than that the global market price for petalite being below an agreed price level.

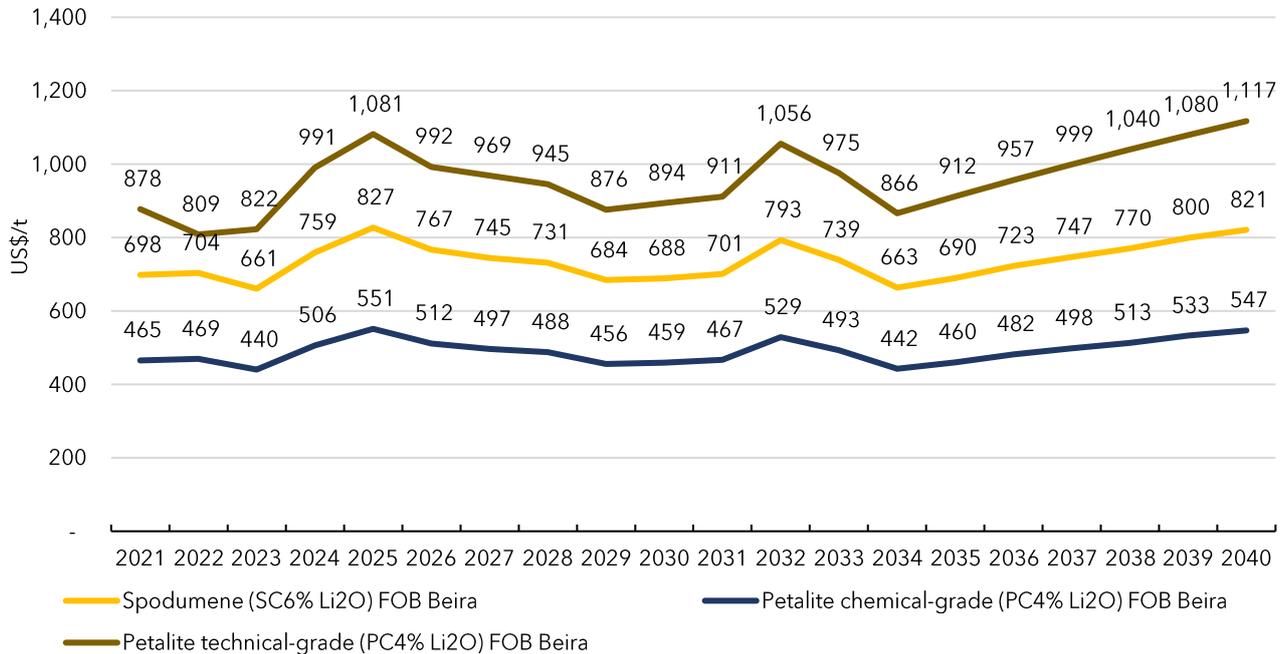
For further information please refer to ASX announcement on 17 August 2020.

Price Forecast

The Arcadia orebody is globally unique in that it hosts two lithium minerals that can be concentrated economically with the ability to place its lithium products in both the chemical and the technical markets. Arcadia's product marketing strategy is to maximise spodumene and chemical grade petalite sales into the chemical (battery) market, and technical grade petalite sales into the premium technical (glass and ceramics) market.

For the Staged OFS, leading independent forecasting agency Roskill has provided an updated price forecasts for Arcadia's products over the Project's expected life of mine. The price forecasts shown in Figure 9 are calculated on an FOB Beira basis, to be aligned with the sale terms in Prospect's offtake agreements.

Figure 9: Arcadia Staged OFS price forecast (real basis)



Roskill's forecast results in a life of mine price assumption on a real basis, FOB Beira of

- Spodumene concentrate (SC6) of US\$736/t;
- Chemical grade petalite concentrate (PC4) FOB Beira of US\$490/t; and
- Technical grade petalite concentrate (PC4) FOB Beira of US\$959/t

Key Arcadia financial projections

Operating Cost

Operating costs are based on estimates of costs at the Arcadia mine, vendor quotations, budget prices, in-house database costs and engineering of costs and engineering experience, to a $\pm 15\%$ level of accuracy.

These estimates have been incorporated into a fully dynamic financial model based on the mining schedule, metallurgical variables and the mass balance to determine unit outcomes per tonne of product.

The Staged OFS is based on a contract mining operation. This includes drilling, blasting, loading and hauling of ore and waste. The forecast unit mining cost of US\$2.61/t material mined is based on indicative quotes sourced from regional mining contractors, after a complete review of mining process.

There has been an independent review of the logistics assessment, confirming the most viable export route continues to be via Beira. Independent assessment of all costs confirms a very sustained margin, even when considering potential price volatility and cost escalation.

Table 4: Arcadia operating cost estimate

Key metric (100% basis) US\$/tonne	LOM
C1 Cost	
Mining	102
Processing	162
Support Services (SS)	24
Administration	19
Packaging and Logistics	85
Selling costs	40
Tantalum credit	(54)
Total C1 Costs	378
Depreciation	56
Total C2 Cost	434
C3 Costs (C2 + Corporate Cost + Royalties)	453
AISC (C1 + Sustaining Capex)	386
AIC (AISC + Pre-Production Capex)	431

Capital Cost

The capital expenditure estimate in the Staged OFS is based on a phased approach for the construction of a 2.4 Mtpa processing plant implemented in two 1.2 Mtpa stages. The front-end comminution circuit is already sized for future expansion of the process to a 2.4 Mtpa capacity. The additional capacity will be created through the duplication of the process functions through the DMS and flotation circuits.

Generally, the increased capital expenditure estimate compared to the 2019 Updated DFS is to expand equipment capacity and capability, to reduce and manage process risk with more modularisation and pre-erection in South Africa, focused on reducing execution risk.

The Staged OFS also now factors in EPCM costs, and higher contingency to account for the known and unknown risks. The risk of further increases in capital expenditure is mitigated by a high proportion of Front-End Engineering Design (FEED) having now been completed.

Total forecast pre-production capital expenditure for Stage 1 is approximately US\$141m. The capital estimate has been prepared in accordance with Lycopodium Cost Estimating Procedures and fulfils the requirement of the AACE Class 2 Estimate ("Bankable Feasibility Estimate") with an accuracy range of $\pm 12.5\%$.

The composition of the pre-production capital estimate (including for Stage 2) is outlined in Table 5. The Stage 1 pre-production capital estimate includes an approximate US\$12m contingency allowance.

Table 5: Arcadia pre-production capital expenditure estimate

Capital Cost (100% basis) US\$M	Stage 1 (+1.2 Mtpa)	Stages 2 (+1.2 Mtpa)	Total
Site Readiness & Infrastructure	20.66	9.26	29.92
Mining	5.53	-	5.53
Processing Plant	69.62	45.51	115.13
Preliminaries and General	11.50	4.39	15.89
Owners Project Team Costs	7.55	3.66	11.21
EPCM	13.75	2.22	15.97
Contingency	12.14	6.61	18.75
Total	140.74	71.66	212.40

Financial Analysis

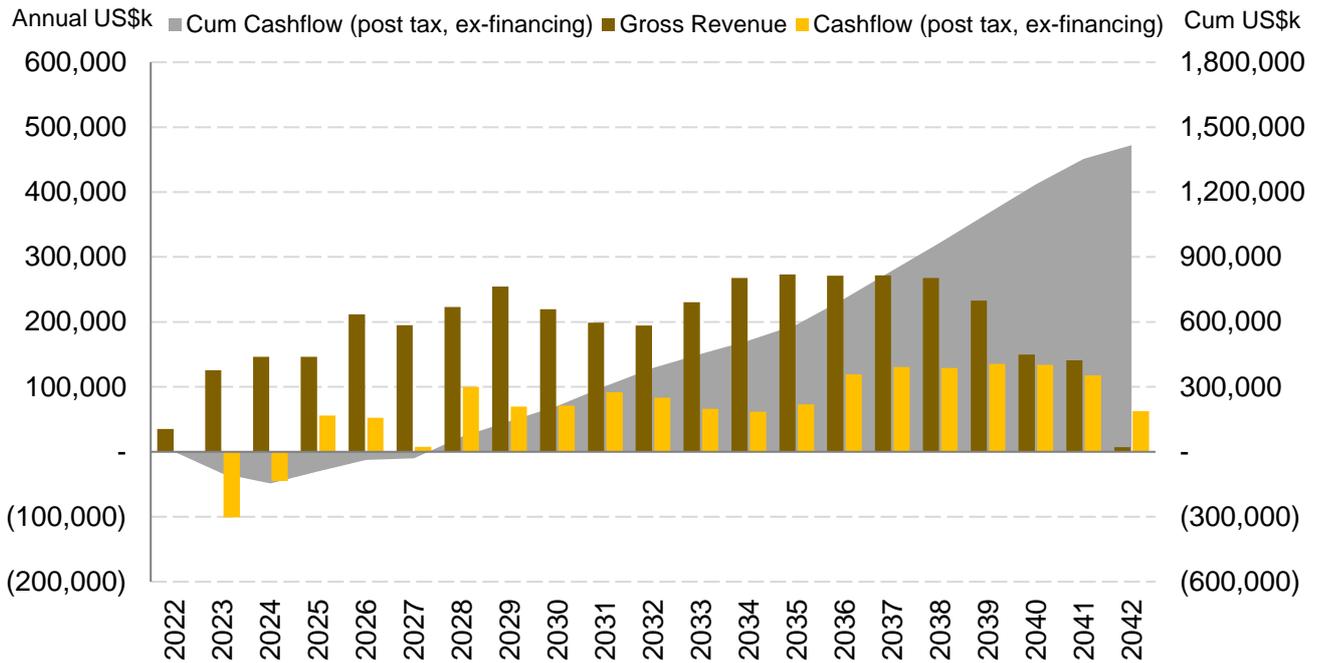
Forecast key financial metrics for the staged development of Arcadia as reflected in the Staged OFS are summarised in Table 6 (all projections are on a 100% project basis).

Table 6: Arcadia Staged OFS key financial outcomes

Key financial outcomes	Unit	LOM
Price Input		
LOM Average spodumene (SC6) price	US\$/t conc.	735
LOM Average technical petalite price	US\$/t conc.	955
LOM Average chemical petalite price	US\$/t conc.	490
LOM Average tantalum price	US\$/lb conc.	21
Valuation, returns and key ratios		
NPV _{10%} (pre-tax, real basis, ungeared)	US\$m	465
NPV_{10%} (post-tax, real basis, ungeared)	US\$m	408
IRR (pre-tax, real basis, ungeared)	%	35%
IRR (post-tax, real basis, ungeared)	%	34%
Payback period (post-tax, from first production)	Years	5.4
Post tax investment to first positive cash	US\$m	148
Cashflow summary		
Sales revenue (gross)	US\$m	4,064
Operating costs	US\$m	2,140
Project operating surplus	US\$m	1,924
Pre-production capital expenditure – Stage 1	US\$m	140
Pre-production capital expenditure – Stage 2	US\$m	72
Sustaining capital	US\$m	39
Project net cashflow (post-tax)	US\$m	1,468
Operating costs		
C1 Operating Cost (incl tantalum credit)	US\$/t conc.	378
All-In-Sustaining-Cost (AISC)	US\$/t conc.	386

The Project LOM cashflow is shown in Figure 10.

Figure 10: Arcadia Staged OFS Life-of-Mine cashflow



Sensitivity Analysis

Sensitivities are applied to key project estimates and assumptions. Favourable and unfavourable movements relative to post-tax NPV are illustrated in Figure 11.

Figure 11: Sensitivity analysis – post-tax NPV (US\$m)

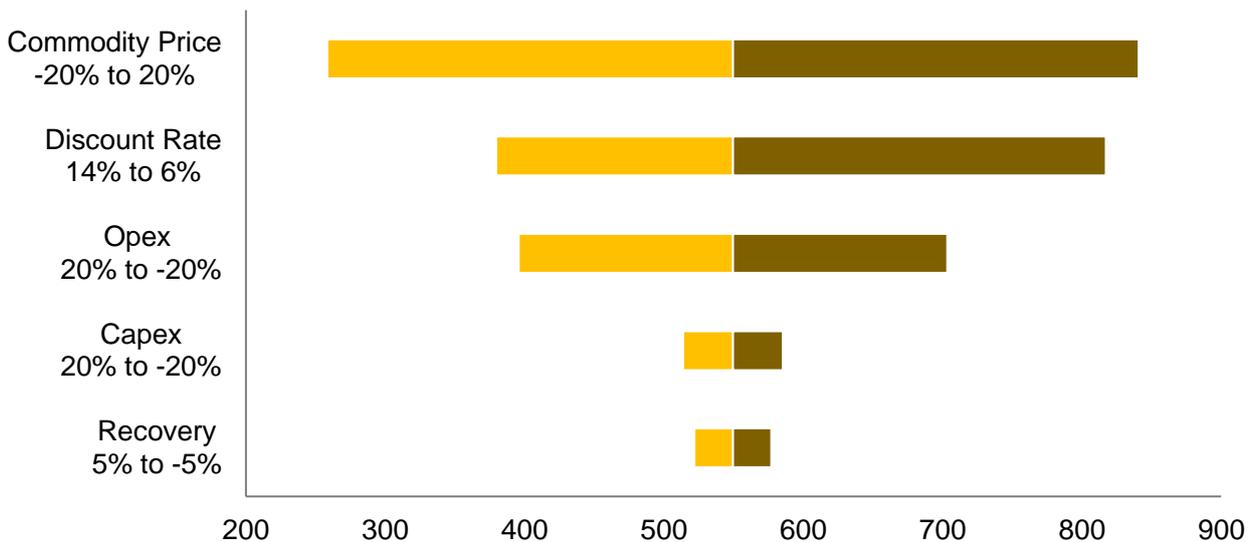


Table 7 demonstrates the Arcadia post-tax NPV utilising different discount rates.

Table 7: Post-tax NPV variability for selected discount rates

Selected discount rate sensitivity	6%	8%	10%	12%	14%
Post Tax NPV (US\$m)	667	521	408	321	253

Environmental, Social and Governance (ESG) Credentials

Prospect is committed to developing mining projects through responsible and sustainable mining operations.

Prospect's strategy of developing and operating long-life assets means that the Company needs to plan over many decades. Prospect believes that long term value is underpinned by sustainable operations with the support of the host communities in which we work. In line with this commitment, the Company operates a Corporate Social Responsibility (CSR) committee, focused on maintain deep, authentic and respectful relationships with our stakeholders, securing a social license to operate.

Prospect recognises that lithium mining has a fundamental role in shaping the global energy future, as we transition to a low carbon economy. Prospect is taking steps to build our approach to sustainability, which will involve preparing of a road map to help the Company align with good industry practise as we move towards construction.

Future expansion, life extension and other upside potential

There is opportunity to extend the initial 20 year mine life, either in conjunction with or in alternative to an expansion of the operating scale.

The Arcadia development is based on an initial Ore Reserve of 42.3Mt. This compares with Measured Resources of approximately 15.9Mt, Indicated Resources of approximately 45.4Mt. There is potential to increase Ore Reserves by upgrading the Inferred Mineral Resources at Arcadia and potential satellite pits to Indicated and Measured categories through further drilling.

Prospect has undertaken locked cycle petalite flotation testwork, focused on improving petalite recovery to maximise project economics and increase technical grade petalite sales into the lithium technical market. The locked cycle flotation testwork indicated significant potential to increase petalite recovery from 31% to >60%, across all Arcadia Project ore bodies contained within the reserve.

With this substantial potential increase in petalite recovery, further work can be undertaken to understand the full economic benefits resulting from this increase in recovery, particularly the increase in revenues from additional sales of premium priced technical grade petalite concentrate.

For further information please refer to ASX announcement on 24 July 2020.

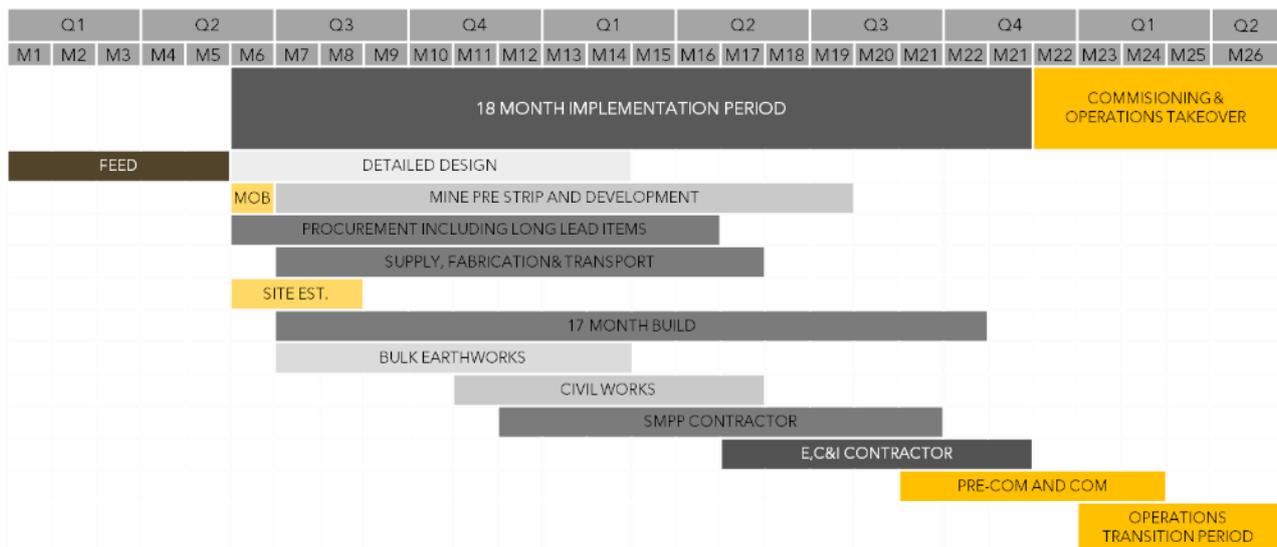
Nest steps and development schedule

The Staged OFS has demonstrated, to a relatively high level of accuracy, that Arcadia is a technically robust and highly economic mine development.

Completion of the Direct OFS is expected to produce a more capital efficient and higher returning development compared to the Staged OFS. Completion of the Direct OFS is expected in Q4 2021.

Figure 12 is an illustration of the indicative development timeline for Arcadia under both the Staged OFS and Direct OFS build approaches.

Figure 12: Arcadia Indicative development timetable



Risks

The Project risk register was developed in a workshop setting with senior representatives from Lycopodium and PLZ, challenging all key business functions of the project from mining through to effective sales. Risks were then characterised in a risk assessment framework, to form a Project Risk Register. Key to the management of risk is the effective management oversight towards mitigations, with residual risk derived from the outcomes of all mitigations.

Risk management is a focus of the Company and continues to be the most effective means to reduce the challenges in commercially operating the Project.

Funding pathway

The robust technical and economic outcomes of the Staged OFS, as well as currently strong lithium market conditions, provide an outstanding platform for Prospect to continue to pursue a range of possible funding solutions to commercialise the Project.

Prospect is currently reviewing and assessing available funding options to maximise benefits to shareholders and is confident that it will be able to secure appropriate funding on competitive terms.

This confidence is highlighted by enquiries received from a range of international parties who have expressed interest in participating in the funding and development of Arcadia.

Due to this interest, Prospect announced on 23 August 2021 that it had commenced a structured process to identify suitable partners for Arcadia (**Process**). Prospect appointed Azure Capital and Vermilion Partners to assist and support management in the preparation, planning and execution of this Process.

While ongoing, the Process will provide interested parties the opportunity to put forward partnership proposals in a competitive environment to fully fund the development of Arcadia. The Board is currently prioritising the development of Arcadia through this Process over other funding options, to provide more flexibility, accelerate Project execution and bring the Project into production at the earliest possibility.

The Process is well-advanced, with strong interest being shown by several well-funded and experienced international groups.

To develop the Project and achieve the range of outcomes indicated in the Staged OFS, pre-production funding in excess of US\$148m is likely to be required. There is no certainty that Prospect will be able to source that quantum of funding when required. It is also possible that such funding may only be on terms that may be dilutive to or otherwise affect the value of Prospect's shares.

An assessment of various funding alternatives for Arcadia has been made based on precedent funding transactions in the lithium industry.

Prospect has formed the view that there is a reasonable basis to believe that requisite future funding for development of Arcadia will be available when required and at equity prices at least equivalent to the current company valuation. There are several grounds on which this reasonable basis is established:

- Firefinch Limited (ASX: FFX) and Jiangxi Ganfeng Lithium Co ("Ganfeng") announced in June 2021 their intention to establish a 50:50 joint venture over Firefinch's Goulamina Project in Mali. Under the agreement, Ganfeng will make a US\$130m equity investment and arrange up to US\$64m in debt funding, to fund Goulamina into production. In return, Ganfeng has offtake rights of up to 100% of spodumene concentrate produced from Goulamina for the life of mine, on market terms.
- IronRidge (AIM: IRR) ("IRR") and Piedmont Lithium Incorporated (ASX: PLL) ("Piedmont") announced in July 2021 that the companies have entered into definitive agreements to establish a strategic partnership. Piedmont invested approximately A\$15m to acquire a stake in IRR and will also have the opportunity to earn a 50% stake in IRR's Ewoyaa Project by investing (i) A\$16m to fund ongoing exploration and a definitive feasibility study over the next 24 months, to earn an initial 22.5% project interest, and (ii) a further A\$70m in 2023-25 to fund the construction of the Ewoyaa Project to earn an additional 27.5% project interest, which would bring the total to 50% ownership in IRR Ghana. Piedmont and IRR also entered into a binding supply agreement for 50% of IRR Ghana's planned spodumene concentrate production.

- AVZ Minerals Limited (ASX: AVZ) (“AVZ”) and Suzhou CATH Energy Technologies (“CATH”) announced in September 2021 that the companies had entered into a transaction implementation agreement by which CATH would earn a 24% equity interest in a joint venture to develop the Manono Lithium Project by payment of US\$240 million to AVZ. CATH is then required to fund its pro-rata share of funding for development of the project. CATH would also have various offtake rights arising from the transaction.
- Ioneer Limited (ASX: INR) (“Ioneer”) and Sibanye-Stillwater Limited (“SSL”) announced in September 2021 an agreement to establish a joint venture over the Rhyolite Ridge Lithium-Boron Project in Nevada USA, pursuant to which SSL would contribute US\$490m in equity funding for a 50% interest. SSL has also agreed to make a US\$70m placement to Ioneer.

In addition to this, debt and equity finance for lithium projects remains available from the capital markets. Recent examples of equity funding being available for progression or construction of such projects globally include:

- Argosy Mineral (ASX: AGY) raised A\$30m via an equity placement in February 2021 to fund development of its Rincon Lithium Brine Project in Argentina;
- Ioneer raised A\$80m via an equity placement in March 2021 for fund continued development of its Rhyolite Ridge Project;
- Piedmont raised A\$159m via a public offering in March 2021 for the continued development of its Piedmont Lithium Project in North Carolina;
- Sayona Mining Limited (ASX: SYA) (“Sayona”) raised A\$50m via a private placement and share purchase plan in July 2021 to fund the acquisition of North American Lithium;
- AVZ Minerals Limited (ASX: AVZ) raised A\$40m via a private placement in July 2021 to fund continued development of its Monono Project in the Democratic Republic of Congo;
- Core Lithium Limited (ASX: CXO) (“Core”) raised A\$116m via a private placement and share purchase plan in August 2021 for development of its Finniss Lithium Project in the Northern Territory. A further A\$34m was raised, subject to conditions precedent, via a placement to Core’s offtake partner, Ganfeng; and
- Sayona raised a further A\$100m via a private placement and A\$25m via a rights issue in October 2021 to fund acquisition of the Moblam Lithium Project in Quebec;

Prospect notes that it has a current market capitalisation of approximately A\$150 million and zero debt. The Company owns 87% of the Arcadia Project and otherwise has an uncomplicated, clean corporate and capital structure. These factors are expected to be viewed favourably by potential strategic investors, offtake partners and conventional equity investors, as well as offering flexibility in engagement with potential debt and quasi-debt providers (should this be required).

The Prospect Board and management team have extensive experience in the global lithium, and broader resources, industry. Key Prospect personnel have demonstrated track records of identifying, acquiring, defining, funding, developing and operating quality mineral assets of significant scale.

It should be noted that Prospect’s current funding strategy for Arcadia is subject to change at the Prospect Board’s discretion at any point. It should also be noted that, while the Prospect Board holds a reasonable basis to believing that funding will be available as required, there is no assurance that the requisite funding for Arcadia will ultimately be able to be secured.

This release was authorised by the Sam Hosack, Managing Director of Prospect Resources Ltd.

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About Prospect Resources Limited (ASX: PSC, FRA:5E8)

Prospect Resources Limited (ASX: PSC, FRA:5E8) is an ASX listed lithium company based in Perth with operations in Zimbabwe. Prospect's flagship project is the Arcadia Lithium Project located on the outskirts of Harare in Zimbabwe. The Arcadia Lithium Project represents a globally significant hard rock lithium resource and is being rapidly developed by Prospect's experienced team, focusing on near term production of high purity petalite and spodumene concentrates. Arcadia is one of the most advanced lithium projects globally, with a Definitive Feasibility Study, Offtake Partners secured and a clear pathway to production.

About Lithium

Lithium is a soft silvery-white metal which is highly reactive and does not occur in nature in its elemental form. In nature it occurs as compounds within hard rock deposits (such as Arcadia) and salt brines. Lithium and its chemical compounds have a wide range of industrial applications resulting in numerous chemical and technical uses. Lithium has the highest electrochemical potential of all metals, a key property in its role in lithium-ion batteries.

Caution Regarding Forward-Looking Information

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this announcement are in United States currency, unless otherwise stated.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities. Prospect confirms that for the purposes of Listing Rule 5.19.2, all material assumptions underpinning the information continue to apply and have not materially changed

Competent Persons Statements

The information in this announcement that relates to Exploration Results, is based on information compiled by Mr Roger Tyler, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and The South African Institute of Mining and Metallurgy. Mr Tyler is the Company's Senior Geologist. Mr Tyler has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition. Mr Tyler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources is based on information compiled by or under the supervision of Ms Gayle Hanssen of Digital Mining Services, Harare Zimbabwe. Ms Hanssen is registered as Professional Scientist with the South African Council for Professional Natural Scientific Professions (SACNASP) which is a Recognised Professional Organisation (RPO). Ms Hanssen is employed by DMS and has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition. Ms Hanssen consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserves is based on information compiled and reviewed by Mr Paul O'Callaghan, a full-time employee of CSA Global Pty Ltd. Mr O'Callaghan takes overall responsibility for the Report as Competent Person. Mr O'Callaghan is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Paul O'Callaghan has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

Prospect Resources

Arcadia Lithium

DFS Technical Report

6690-GREP-001

October 2021



Prospect Resources

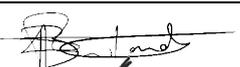
DISCLAIMER

This report has been prepared for Prospect Resources Prospect Lithium Zimbabwe by Lycopodium Minerals Africa Pty Ltd (Lycopodium) as an independent consultant and is based in part on information furnished by Prospect Lithium Zimbabwe and in part on information not within the control of either Prospect Lithium Zimbabwe or Lycopodium. While it is believed that the information, conclusions and recommendations will be reliable under the conditions and subject to the limitations set forward herein, Lycopodium does not guarantee their accuracy. The use of this report and the information contained herein shall be at the user's sole risk, regardless of any fault or negligence of Lycopodium.

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Arcadia Lithium

DFS Technical Report

6690-GREP-001

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

Prospect Resources Limited (ASX:PSC) (Prospect) has established the Arcadia Lithium Project (the Project) in Zimbabwe as a high quality deposit with substantial commercial potential. Through Prospect Lithium Zimbabwe (PLZ) its wholly owned subsidiary, Prospect has established a Mineral Resource of 72.7 Mt grading 1.11% Li₂O and 119 ppm Ta₂O₅. Since 2018 Prospect has evaluated a number of technical and commercial factors influencing potential project development, including mining, ore treatment and product generation and sale.

Prospect prepared an initial Project feasibility study in 2018 and updated this work in December 2019. Whilst the essential aspects of the Project remain unchanged, significant movements in the lithium business over time have rendered much of this work obsolete. Accordingly Prospect intends that this study be viewed as a stand-alone work based on contemporaneous market demand for and pricing of the petalite and spodumene products that may be produced at Arcadia.

The aim of this document is to describe the proposed mining, processing and commercial operations for the Project. This study incorporates the results of the current Mineral Resource estimation and mine design, wide-ranging metallurgical test programmes and addresses contemporary lithium market and economic factors. It maintains a focus on risk aspects of the Project and all associated bases for decision-making are contained within or referenced from this document.

As a means of managing technical and commercial risk, Prospect has approached this study on the basis of a staged development towards the 2.4 Mtpa ore mining and processing project initially envisaged. This work has been based on an assessment of an initial 1.2 Mtpa operation doubling to 2.4 Mtpa after 4 years. The objective of this study is to demonstrate the feasibility of this strategy while deferring a portion of the total Project capital expenditure until a significant revenue stream has been reached.

In particular, this study has been based on a market-driven approach in which the production and sale of premium low iron petalite concentrate coupled with the production of chemical grade spodumene flotation concentrate underpins Project development strategy. This strategy feeds into mine planning and in turn influences the design of the petalite and spodumene recovery circuits to maximise Project returns.

1.2 Study Organisation and Approach

This study has been prepared by Lycopodium Australia Pty Ltd and Lycopodium Minerals Africa (Pty) Ltd (Lycopodium) with assistance from PLZ and Prospect and selected external contributors as outlined in Table 1.2.1. Where appropriate Lycopodium provided direction in the design and execution of programmes designed to reduce technical risk and raise confidence levels in aspects of process development, engineering design and cost estimation.

Table 1.2.1 Arcadia DFS Contributors

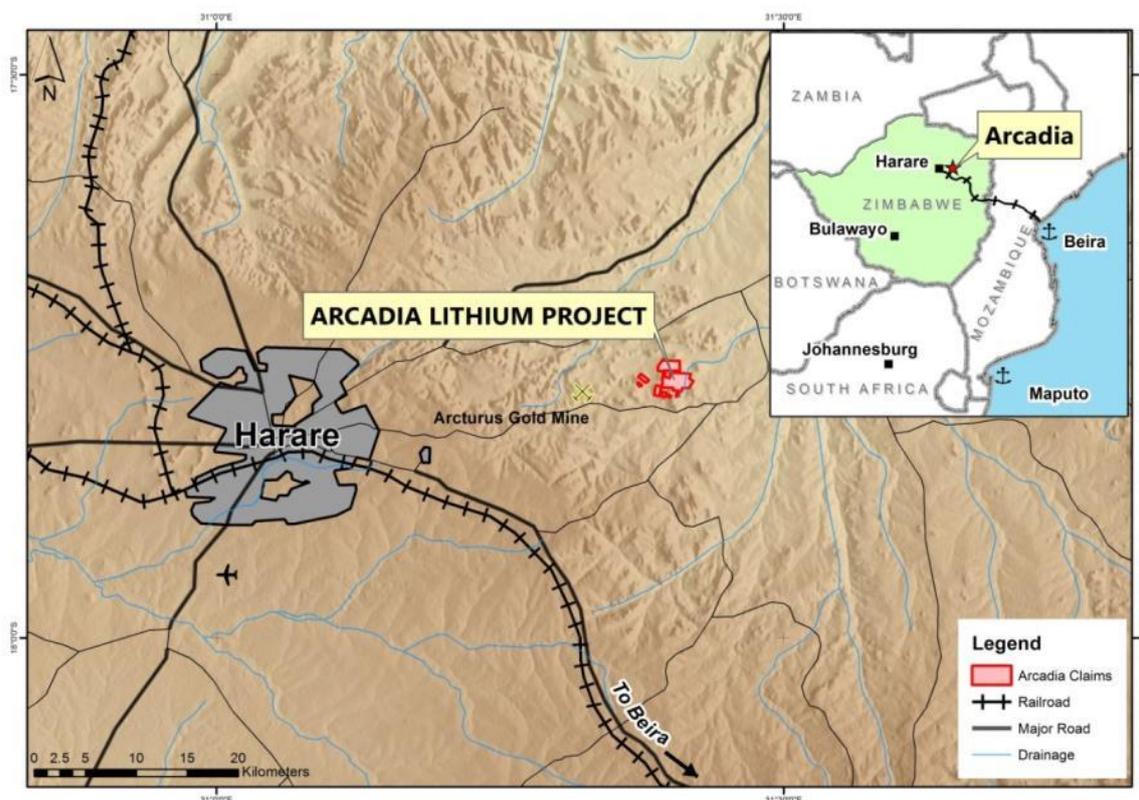
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Mine Planning	CSA Global Pty Ltd of Perth, Western Australia
Environmental Impact Assessment	Gap Analysis by SRK Consulting of Johannesburg, South Africa Evans Matare of Envirosmart Consultancy, Zimbabwe
Hydrogeological Assessment	Constant Chuma of NUST University Zimbabwe
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Tailings disposal facility design	EPOCH Resources (Pty) Ltd
Process design	Lycopodium
Engineering cost estimate	Lycopodium
SHE Management Plan	Lycopodium
Project Execution Plan	Lycopodium
Quality Management Plan	Lycopodium
Electrical Network Analysis	Norconsult
Transport Fleet Study	PLZ
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Minerals Marketing	Tantalum – Roskill, United Kingdom Nicholas Rathjen MAppFin, BComm (Prospect)
Project economic modelling	Infinity Corporate Finance, Subiaco, Western Australia Iain Goldberg (Prospect)

1.3 Project Introduction

The Arcadia Lithium Project (the Project, Arcadia) is situated approximately 38 km east of Harare, Zimbabwe (17°46'26" S 31°24'34" E, Figure 1.3.1). It occupies an area of more than 9 km² and incorporates historical lithium and beryl workings.

The Project is close to major highways and railheads, with the Beira Port in Mozambique less than 590 km away by rail/road transport. Its location as a regional transport hub serves the Project well. Its proximity to Harare facilitates access to a source of skilled and semi-skilled labour and qualified technical and commercial personnel.

Figure 1.3.1 Location of Arcadia Lithium Project



1.3.1 The Country

Zimbabwe is a land locked country about twice the size of the UK sharing common borders with Zambia, Mozambique, South Africa and Botswana. The largest city and capital is Harare. The population is approximately 15 million people speaking 16 official languages, with English, Shona, and Ndebele most commonly spoken. English is predominantly the language of business and government. The current President, E D Mnangagwa became President of Zimbabwe in 2017.

Natural resources include chrome, platinum, gold, nickel, copper, coal, industrial and gem diamonds, lithium, tin, tantalum, tungsten, uranium, iron ore, hydro-power and timber.

1.3.2 Project Access

The Arcadia Lithium Project is located on Nhaka Valley Estate, (formerly Thorn Vlei Farm) in Ward 13, Goromonzi District. The site is situated 38 km East of Harare and 9 km east of the now defunct Arcturus gold mine.

The Project is readily accessible via 18 km along the Harare to Murewa tarred A2 highway.

1.3.3 Climate

The climate is characterized by a wet season with a monthly maximum temperature of 25oC to 27oC and mean monthly minimum temperatures between 12oC and 14oC. The lowest temperatures are experienced in May – July, and the highest during the months of October – December often exceeds 30°C. Annual precipitation varies between 800 mm and 1 000 mm. The April – October period receives the least, if no precipitation, while the amount increases towards summer, so that November – February are typically the rainiest months.

1.3.4 Topography

The Project site is located on a plateau within the Chishawasha uplands range. The elevation of the Project area varies between approximately 1 300 m – 1 410 m above mean sea level.

The majority of the Project area comprises steep but smooth sided greenstone ridges and undulating hills, running approximately east-west. The old Arcadia Pit is situated on the southern side of the prominent Arcadia Hill.

A number of SW-NE valleys cross the area, and these appear to be controlled by regional fault zones of the same strike.

Approximately 10% of the area comprises low lying, now fallow agricultural fields. These fields are controlled by the presence of large scale NNE -SSW trending and SE – NW trending fault sets.

1.3.5 Vegetation and soil

Fallow farmland covers a large part of the area and indigenous vegetation is generally confined to the less easily cultivated hilly or marshy ground.

Mixed woodland is widespread, particularly on well drained hills and ridges of greenstone, and growth tends to be more prolific on the more fertile soils of the greenstones.

Residual soils cover most of the area and are mainly are fersiallitic, overlying basic greenstone lithologies (essentially meta-basalts) and mafic intrusive rocks (dolerites). The soils are shallow to a moderate in depth, rarely exceeding 5 m, and reddish brown to greyish brown loam. Over granitic areas, the soils are mainly moderately shallow, greyish brown to coarse grained sandy loams. There is no discernible difference in soil colouration or texture, in areas underlain by pegmatite.

1.4 Strategy

Zimbabwe enjoys considerable mineral resource endowment and a history of successful mining enterprise. The Government is committed to attracting foreign investment into the mining sector by updating its legislation environment and offering incentives to prospective project developers.

Arcadia is expected to initially be the only operating asset for PLZ and provide the cornerstone on which it can provide growth for stakeholders. The cash flow and balance sheet strength provided by Arcadia to PLZ is seen as integral to its vision of becoming a mid-tier, multi asset mining company. Leveraging the operating environment within Zimbabwe will offer PLZ a strategic advantage in unlocking value from Zimbabwe's vast mineral endowment.

Arcadia's optimum development plan indicates that a single project, commencing at 1.2 Mtpa and transitioning to 2.4 Mtpa throughput within 5 years is favourable. Start-up and ongoing production variability, especially through ramp up, has been mitigated by the concurrent commissioning of a pilot plant and testing program.

Outside of the scope of this feasibility study, PLZ is evaluating a number of value-add opportunities at Arcadia. Of immediate interest is the development of a petalite flotation process that if successful would open the opportunity to substantially increase petalite recovery from Arcadia. To date Dorfner Anzplan of Germany has achieved positive results from an exploratory petalite flotation programme carried out on samples of Arcadia ores. PLZ proposes to continue this work.

The commencement of petalite production from the Arcadia DMS Pilot plant has allowed for multiple operational scenarios to be evaluated, allowing for strong development and learnings that have been incorporated into this Study. Secondary to this is the consequential production of by-product feldspar and quartz from petalite and spodumene flotation tailings.

Battery grade lithium carbonate has been produced from Arcadia petalite and spodumene ores at the PLZ chemicals pilot plant in Kwe Kwe in Zimbabwe. A chemicals plant at Arcadia would be unique in Africa and one of the few chemicals plants outside of China; and would have the potential to significantly benefit PLZ stakeholders. PLZ proposes to initiate pre-feasibility works to evaluate the viability of in-country chemicals production in due course.

1.5 Geology and Mineral Resources

1.5.1 Mineral Tenements

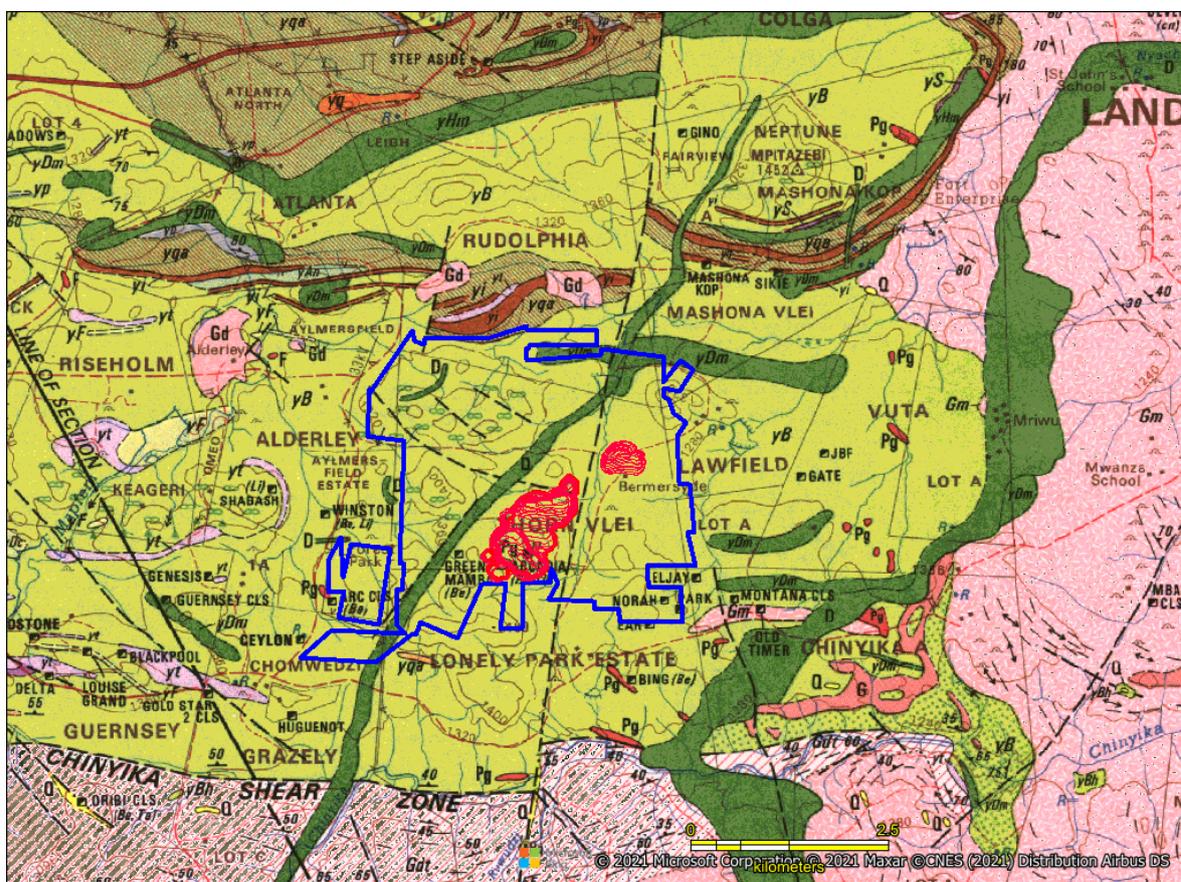
The Project is secured by 43 blocks of base metal claims ranging in size from 10 Ha to 103 Ha, covering a total area of almost 986 Ha. Mining lease number 38 was issued to PLZ which covers 10 km² and encompasses 33 of the aforementioned base metal claims. Figure 1.5.1 shows the boundaries of the consolidated Arcadia tenements, while details of Arcadia tenement holdings are included in the main report.

All claim boundaries and beacons have been inspected and maintained as required by the Mines and Minerals Act. All the blocks are subject to annual inspections and following payment of an inspection fee, are renewed for another year.

Exploration and mining are permissible on claims, provided the pre-requisite environmental impact assessment (EIA) has been done. By law, extant mining claims also take preference over any new housing or agricultural rights.

None of these claims is subject to tribute agreements, nor under ownership dispute.

Figure 1.5.1 Combined Arcadia Mineral Tenement Outline



(North to the Top)

1.5.2 Brief Exploration History

Between 1962 and 1978, the Arcadia mine was sporadically worked as a small-scale open cast operation, where approximately 10 000 t of lithium minerals were produced, in addition to some limited amounts of beryl.

In early 1981, Rand Mines plc (Central African Minerals) undertook a limited drilling programme, which defined approximately 18 Mt, (Non JORC compliant) with high peak grades of Li₂O. The weighted average grade of the intercepts in the eight bore holes was 1.47% Li₂O over 26 m.

1.5.3 Historical Production

The mine was operational from 1962 – 1978, with the main era of production being the late 1960s, when a K. Warren mined the pit under a tribute agreement from the Consolidated Minerals Company. It was presumably him that initiated Geological Survey's involvement with the 1969 drilling programme. It is known that the area was quite dangerous during the war years, and this may well have caused the premature closure of the operation, along with economic sanctions in 1978. Reported production during this period was approximately 15 000 tonnes of mixed beryl and lithium ores.

Beneficiation was limited to simple crushing and hand sorting, with product being trucked to the Ruwa railway siding.

1.5.4 Geology

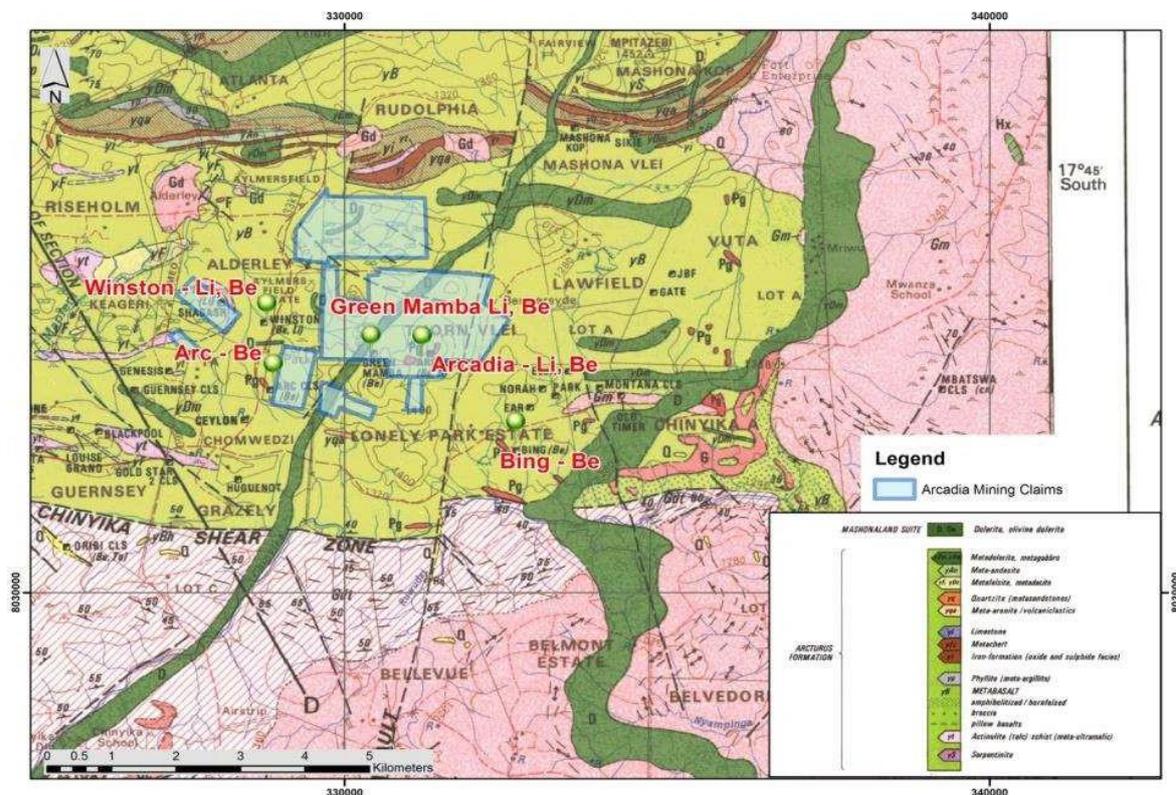
The geology of the greater Arcadia area is dominated by greenstone lithologies of the Arcturus Formation of the Harare Greenstone Belt (HGB). These greenstones are encircled and intruded by a variable suite of granitic rocks, the oldest of which may have been intruded at a similar time with the youngest felsic volcanic rocks of the belt. There is also some evidence for a small remnant area of gneissic basement to the greenstone belt.

The HGB takes the form of a complex refolded synform structure, which outcrops in two major limbs. The E-W trending Arcturus Limb occupies a broad band across the centre of the area, and to the west of the city of Harare this passes via a fold closure into the N-S trending Passaford Limb which is contiguous northwards to the greenstones of the Bindura area.

The main HGB lithological units comprise mainly meta-basalts, banded iron formations, meta-andesites, serpentinites, dolerites and the lithium bearing pegmatites that also host beryl, tin and tantalite amongst others.

The Project (Arcadia-Green Mamba Camp) which lies close to the eastern end of the HGB is dominated by Arcturus Formation Meta-basalts, Figure 1.5.2.

Figure 1.5.2 Regional Geological Map



Four different rock types are found on the Arcadia and Green Mamba claims. These are metabasalt, pegmatite, dolerite and quartz veins, listed from relatively oldest to youngest. The pegmatites comprise the lithium bearing rocks and are of immediate relevance to the Project.

Pegmatite outcrops are coarse to very coarse grained, white to greyish white in colour and blocky in appearance with some oxidation along joint planes. However, natural pegmatite outcrops are rare. This is because they contain high proportions of feldspar which readily weather to clay minerals such as kaolinite and hectorite. The pegmatite mineralogy is dominated by feldspars (mostly albite), lesser quartz and muscovite. The contained lithium bearing minerals include petalite, spodumene, eucryptite and rare lepidolite.

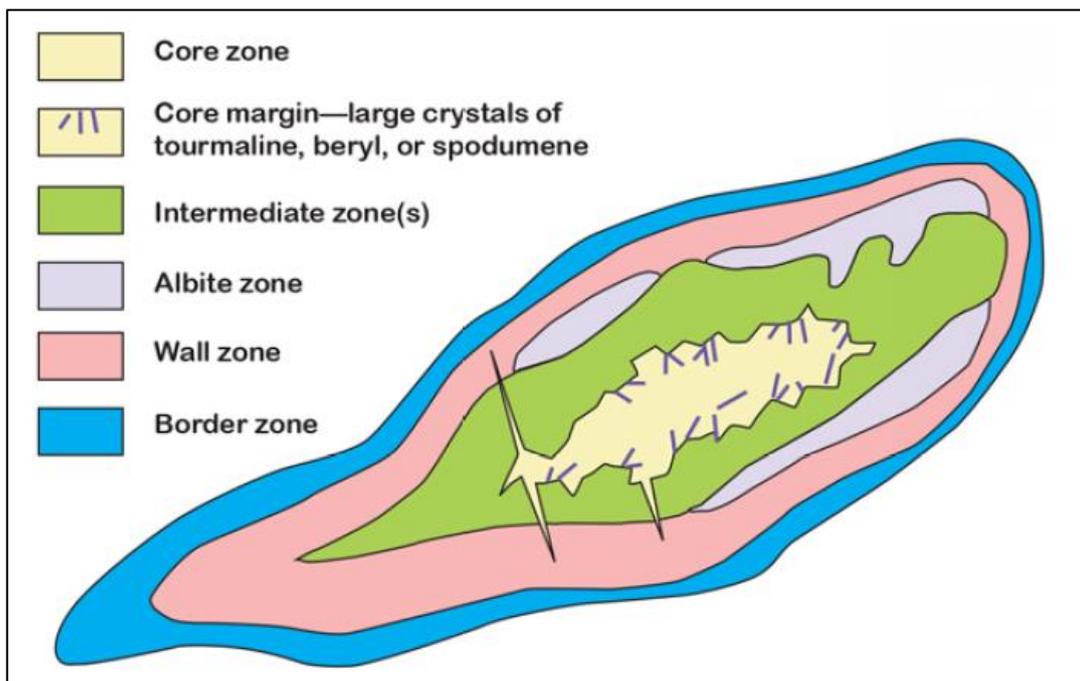
The ore bodies that constitute the reserve show local variation, notably in the proportions of the two main lithium ore minerals; spodumene and petalite. However, there is actually little overall lithological variation within the ore bodies, which are essentially lithium rich quartz-feldspar pegmatites. Detailed XRD and petrographic studies have deduced that the ore bodies consist on average of;

- 45% various feldspars, notably albite;
- 30% quartz;

- 19% lithium minerals, predominantly petalite and spodumene, with an average ratio of 2:1; and
- 4% muscovite, in solid solution with subsidiary amounts of lepidolite.

The pegmatite bodies are also concentrically zoned, Figure 1.5.3. The outer-most zones are the wall and aplitic zones, which are fine grained and comprise mostly feldspar, quartz and muscovite with some rare lepidolite. The intermediate zone is the widest of all the zones and has a coarse to very coarse-grained texture. Furthermore, the intermediate zone hosts petalite and spodumene, along with feldspar and quartz. The central-most zone is referred to as the core zone, which is dominated by coarse grained quartz and muscovite. However, the core zone is not always developed. It is important to note that the thickness of each zone varies, depending on the thickness of the entire pegmatite body.

Figure 1.5.3 Stylised Pegmatite Zones (From USGS Open File 2013 – 1008)



1.5.5 Exploration

Exploration comprised soil sampling and trenching followed by drilling. From statistical and empirical analyses, soil geochemistry samples containing >200 ppm Li indicated areas underlain by lithium containing pegmatites; effectively anomalous. Correlation of the anomalous areas revealed a mineralized zone in a southwest to northeast orientation. The presence of pegmatites just below the surface was positively proved by trenching over the areas where anomalies were identified. Exposing the weathered pegmatites in the trenches allowed the approximate strike, dip and dip direction to be established, as a prelude to drilling.

Prospect initiated its Phase 1 diamond drilling (DD) programme at the end of June 2016. This 16-hole (1 172 m) programme successfully defined the down dip extent of the so-called Main Pegmatite to at least 100 m northwest from the old pit and showed the presence of up to 14 lithium bearing stacked pegmatites, above and below the Main Pegmatite. Both petalite and spodumene were identified, along with lesser amounts of tantalite and eucryptite.

The 33-hole Phase 2 RC programme (2 070 m) undertaken in August 2016 successfully indicated that one of the pegmatite layers some 30 m to 40 m below the MP thickened considerably to the east, reaching over 30 m thick in parts. It has been subsequently shown that this Lower Main Pegmatite (LMP) dwarfs all the other pegmatites discovered, including the MP. It is this unit that will be the major contributor to the Ore Reserves. A combined RC and DD programme was initiated in October 2016, with the aim of extending the strike extent and down dip extent of the Lower Main Pegmatite.

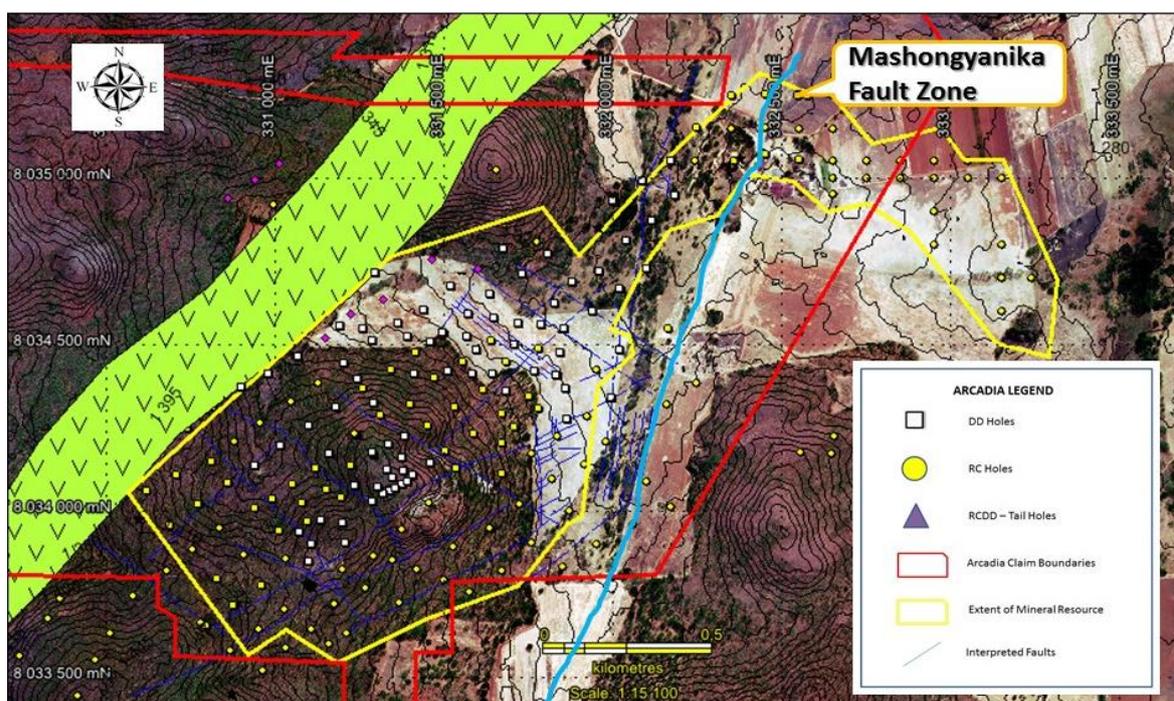
Phase 4 was a continuation of this programme in 2017.

Phase 5 drilled in the 3rd quarter of 2017 was an infill drilling programme designed to upgrade all the LMP within the planned pit to at least indicated resources. In addition, more exploration was undertaken on the Basal Pegmatite in the southwest.

In an effort to identify minable ground close to the surface a phase 6 drilling program was initiated in the 3rd quarter of 2018. A total of 6 RC holes were drilled totalling 518 m.

As of the end of 2018 a total of 23 724 m was drilled. The programme comprised of 194 RC holes, 81 DD holes and 11 pre-collared holes down to 50 m using an RC rig and from 50 m onwards using a DD rig. Figure 1.5.4 illustrates the drilling incorporated in the mineral resource estimate.

Figure 1.5.4 Drilling Incorporated In the Mineral Resource Estimate



As of the end of January 2019, the estimated SW-NE strike extent of the mineralised body was 4.5 km by 1 km down dip (NW). Additionally, exploration potential exists along strike for almost 3.5 km, not currently held by the Company. There is also considerable scope for finding further ore bodies in the greater area.

No further resource development activity has taken place since Early 2019.

1.5.6 Current Mineral Resource Summary

Exploration completed by PLZ supports the conclusion that Arcadia is a medium - high grade, large tonnage deposit comprising stacked pegmatites with potential to delineate additional resources along strike and the possibility of discovery of additional parallel ore bodies.

As of end November 2019, the estimated Global Mineral Resources for Arcadia were as shown Table 1.5.1.

Table 1.5.1 Arcadia Global Mineral Resource Estimate at 0.2% Li₂O Cut-off

Category		Mt	Li ₂ O, %	Ta ₂ O ₅ , ppm	Li ₂ O, t	Ta ₂ O ₅ , lb
Measured	W	1.37	0.70	97	9 600	293 100
	F	14.42	1.16	114	167 900	3 631 900
Indicated	W	7.06	0.82	129	57 700	2 012 600
	F	39	1.11	123	427 900	10 476 600
Inferred	W	1.28	0.66	107	8 500	303 700
	F	9.97	1.04	120	103 600	2 641 800
Total		72.66	1.07	121	775 200	19 135 700

W = weathered; F = fresh

Table 1.5.2 shows a high grade zone MRE at a 1% Li₂O cut-off. This Resource forms the basis of this study.

Table 1.5.2 Arcadia High Grade Mineral Resource Estimate at 1% Li₂O Cut-off

Category		Mt	Li ₂ O, %	Ta ₂ O ₅ , ppm	Li ₂ O, t	Ta ₂ O ₅ , lb
Measured	W	0.24	1.33	134	3 200	71 200
	F	9.58	1.43	123	137 300	2 600 900
Indicated	W	2.41	1.22	141	29 400	748 300
	F	24	1.39	127	328 900	6 641 200
Inferred	W	0.08	1.42	130	1 200	24 100
	F	5.12	1.38	114	70 700	1 283 100
Total		41.18	1.39	125	570 700	11 368 800

W = weathered; F = fresh

There have been no changes to the Mineral Resource estimate since November 2019.

The exploration target remains 80 Mt to 100 Mt at 1.2% -to 1.5% Li₂O. Semi-regional exploration, in the form of mapping and soil geochemistry is continuing.

1.6 Geotechnical

The Project is located within the hydrological sub-zone CH4; Upper sub-catchment of the Mazowe catchment area. The Mazowe River rises north of Harare and flows northwards and then north east where after it heads to the border with Mozambique before entering the Zambezi River.

1.6.1 Geotechnical Setting

The RQD- structural logging undertaken by the exploration team showed the pegmatites and meta-basalt to be very competent, with distinct brittle contacts between lithologies that will permit easy separation during mining.

Practara of Johannesburg have assessed drill data throughout the Arcadia development programme and have made recommendations with respect to pit wall slopes and geometry.

Overall, there are no considered fatal flaws or critical risk factors to pit design. Structures and blocky ground can be managed during operations by applying sound rock engineering methods and techniques to monitor and support. Based on observations within the existing pit, the upper 25 m will most likely require a more conservative slope angle to cater for any eventualities and to ensure design within the required factor of safety.

There are however obvious gaps in the DD database due to the lack of DD holes in the South and West for the Main pit, and then for the NE satellite pit. These need to be addressed before pre-production plans may be finalised. Overall, the rock mass is considered acceptable, but the presence of interpreted structures and the orientations in relation to the planned walls will require further assessment as mine development progresses.

1.6.2 Proposed Plant Area

The plant area selected to the west of the proposed pit is within optimum hauling distance from the mine, but outside of the blast area to protect the equipment from debris.

The generally weathered nature of material within about 4 m of surface suggest some major earth works will be required to provide a stable base for the processing plant civil works.

1.6.3 Hydrogeology

The surrounding streams, such as the Nyachivi, which runs through the Project site are seasonally ephemeral and flow only during periods of active rainfall. The hydrogeology is dominated by secondary fracture permeability and shear zones within the greenstones. The occurrence of groundwater is solely controlled by the development of secondary porosity and permeability within the impervious rock mass. The crystalline parent rock gives rise to shallow crystalline fractured aquifers.

The dominant water bearing features appear in order to be; the NW-SE trending faults, the NNE-SSW regional faults, such as the Mashonganyika and the less than common but major SW- NE zones. Ground water is also concentrated along structurally controlled contacts to the Mashonaland dolerites, which appear to have been preferentially but not exclusively emplaced along these SW-NE fault zones.

The pegmatites form a generally impervious rock mass with any groundwater occurrence in the rocks controlled by fracture sets and secondary porosity.

1.6.4 Hydrological Report Conclusion

The hydrological and hydrogeological assessments showed that there is high potential for both surface and groundwater, and groundwater is most likely to be utilised. Surface water accessible to the mine is from the main catchment which has a spatial coverage of over 9 180 609 m² and surface runoff of above 5 054 503 m². The available small dam can provide seasonal water source from November to June if it is rehabilitated and there is sufficient rainfall each year. The models used in this assessment assumed minimum values and this is an advantage since it minimises risk factor.

Groundwater provides a source of water as a buffer during times of drought and is a resource that can be developed for localized use. Groundwater is the ultimate resource for use at local scale, because it lends itself to incremental development at relatively low cost and because it is more resilient to inter-annual variability than surface water.

A sustainable water resource for the Project is likely to be a combination of surface and groundwater. Mapping of groundwater using geophysical methods will be necessary as well as completing pump tests.

1.7 Mining

Mining activities have occurred on the Arcadia deposit over a number of decades albeit small scale and sporadic. The ore mined in the past was crushed and hand sorted for lithium minerals and beryl.

In March 2017, Prospect produced a Mineral Resource estimate of 57.3 Mt @ 1.12% Li₂O derived from a series of drilling programs and a pit design based on the Mineral Resource containing an Ore Reserve of 15.8 Mt @ 1.34% Li₂O was used in the PFS issued in July 2017. The pit design comprised a Main pit and two satellite pits with a production rate of 100 000 tpm ore to meet the then process plant throughput capacity of 1.2 Mtpa. The pit optimisation was based on producing chemical grade spodumene and petalite concentrate with tantalum concentrate as a by-product.

The Mineral Resource estimate was subsequently updated to 72.7 Mt @ 1.11% Li₂O in October 2017 following additional drilling, and a re-optimisation of the pits generated an updated Ore Reserve of 26.9 Mt @ 1.31% Li₂O in December 2017. This Ore Reserve was used in the DFS completed in November 2019 with an average ore production rate of 200 000 tpm based on the process plant capacity being increased to 2.4 Mtpa.

The 2019 mining schedule developed has been revised to suit the strategy of commencing ore treatment operations at 1.2 Mtpa and subsequently upgrading to 2.4 Mtpa after 4 years of operation. For this optimised DFS, the pits have been re-optimised using the October 2017 Mineral Resource estimate, updated physical and cost parameters and the production of a higher value Low Iron Petalite concentrate as well as the three other products (petalite, spodumene and tantalum). The updated parameters have increased the Ore Reserve to 42.3 Mt @ 1.19 % Li₂O.

A processing plant capable of producing several lithium mineral concentrates as well as a tantalite concentrate receiving ROM ore at an initial mining rate of 100 000 tpm, increasing to 200 000 tpm forms the basis of the mine design.

Due to the shallowness of the orebody, open pit mining method is the most economic extraction method.

Waste dumps will be located as close as possible to pit exit points to minimise haulage profiles without disrupting the access to the minable resource or crushing plant.

1.7.1 Pit Design

Whittle software was employed to generate and evaluate a series of pit shells on worst- and best-case discounted cash flow outcomes. The optimal pit is found where an increase in pit size (larger pit-shell) does not add significant value or simply resulted in declining value. Ore waste selection in the optimisation process was based on cash flow, hence no pre-described cut-off grade was applied in the optimisation process. The optimizer flexibly retained blocks as ore if they generated positive cash flow and discarded blocks as waste if they generated negative cash flow.

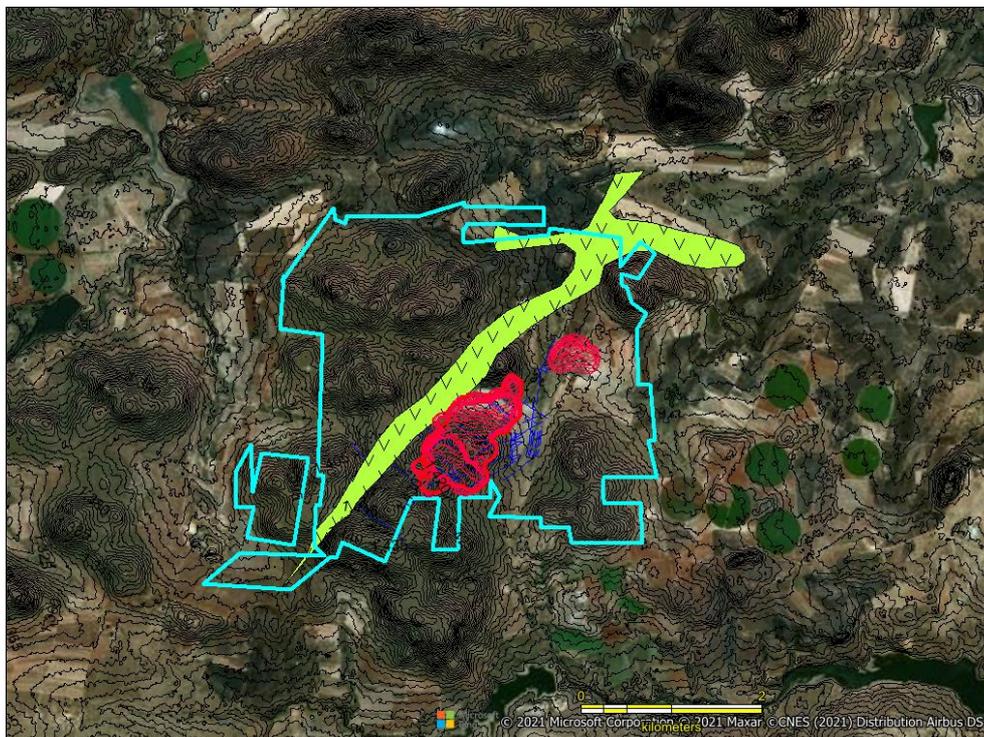
An updated geological model with detailed analytical attributes was used to run Lerchs-Grossman optimisations generating a series of nested pit-shells using a set of anticipated economic parameters and a variety of other technical parameters and constraints. The optimal pit was found where an increase in pit size did not add significant value or resulted in declining value.

Assumptions for economic and cost factors that were used to develop the basis for estimating the optimal pit include:

- Commodity prices;
- Royalties and taxes;
- Mining costs;
- Ore treatment costs;
- Product selling costs; and
- Mining and ore processing constraints.

The Whittle optimisation process resulted in the establishment of two pits comprising a Main Pit and a Satellite Pit located north-east of the Main Pit as illustrated in Figure 1.7.1.

Figure 1.7.1 Orientation of Main and Satellite Pits within Licence Boundary



(North to Top of Diagram)

The Main Pit has been designed in four phases to maximise Project discounted cash flow. This includes two small "starter" pits within the first phase pit to be mined at the commencement of operations, thus allowing for the mine schedule to minimise waste mining in the early years and maximise the lithium grades of the ore fed to the process plant, while maintaining practical mining practices including a minimum working width.

1.7.2 Ore Reserve

The Arcadia Ore Reserve has been prepared in accordance with the JORC Code, 2012 edition. Evaluation of the block model was carried out by CSA Global of Perth in August 2021, and Table 1.7.1 summarises the Ore Reserve that would be delivered to the processing plant. The key modifying factors applied to Ore Reserve calculation include:

- Dilution 5%, and
- Ore recovery 95%

The diluting waste material was assumed to be barren with respect to lithium and tantalum.

The Ore Reserve has been reported using a cut-off grade derived from calculations based on Net Smelter Return (NSR). Given the Project will sell four different products, the formula used to compute NSR is based on total revenue from all mineral products less processing and selling costs. Each block that is able to generate sufficient revenue to offset the stated costs is considered as ore.

Table 1.7.1 Arcadia Lithium Deposit Ore Reserve Estimate – August 2021

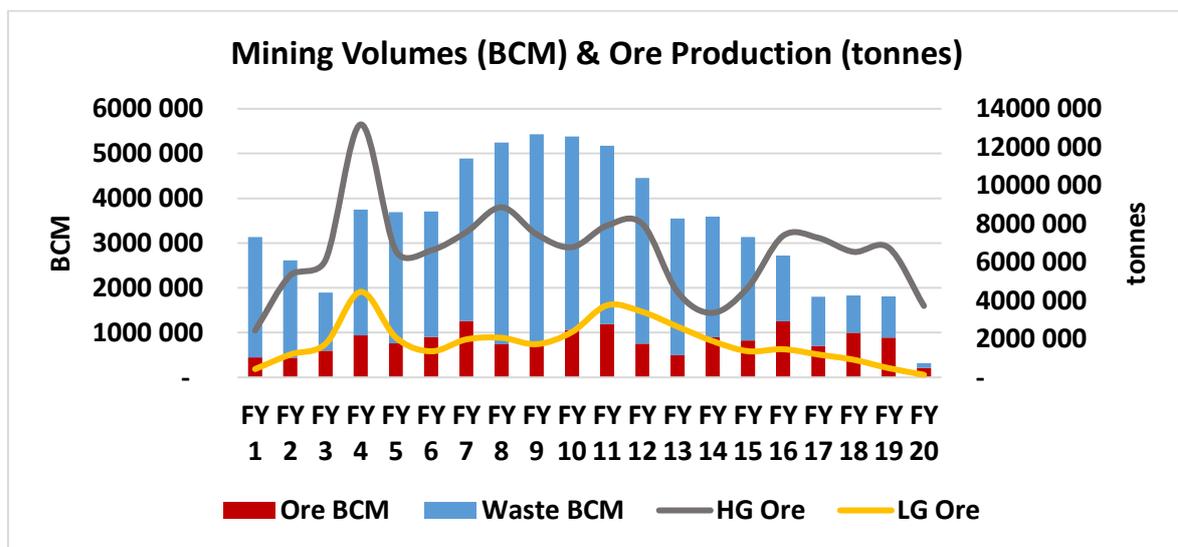
Category	Tonnes (Mt)	Li₂O (%)	Ta₂O₅ (ppm)	Li₂O (kt)	Ta₂O₅ (Mlb)
Proved	11.8	1.25	114	148	3.0
Probable	30.5	1.17	124	357	8.3
Total	42.3	1.19	121	504	11.3

A total of 144 Mt of waste is to be extracted from the pits, representing a life of mine stripping ratio of 3.2:1.

1.7.3 Mine Plan

A life of mine production schedule has been prepared using “MineSched” software. The schedule has been designed to deliver high grade ore to the process plant at an initial rate of 100 000 tpm, rising to 200 000 tpm by Year 5, while maintaining an average ROM stockpile of around 200 000 t to 300 000 t. Figure 1.7.2 illustrates the Arcadia life of mine (LoM) ore delivery schedule. Early supply of Main Pegmatite ore in which petalite dominates will provide maximum opportunity for the production of Technical Grade ultra-low iron petalite concentrate.

Figure 1.7.2 Arcadia RoM Ore Delivery Schedule



1.7.4 Mine Operations

Mining will be carried out over 2 x 10 hour shifts per day, 6 days per week. Mining operations will be conducted utilising a contracted fleet for key equipment with some ancillary vehicles being supplied by the mine operator. PLZ will be in charge of managing and supervising the contractor to ensure compliance with all business ethics, environmental and occupational health and safety requirements.

It is planned that track mounted diesel hydraulic backhoe excavators will load ore and waste into dump trucks. Ore grading 1% Li₂O or more will be transported to the run of mine (ROM) pad where it will be stockpiled in fingers prior to reclamation by front end loader. Lower grade ore will be stockpiled for later processing or blending with high grade ore to control treatment plant head grade.

Waste material will require blasting except for some of the upper weathered rocks. Topsoil will be pre-stripped to a separate dumpsite for future use in rehabilitation at mine closure stage. Ore and waste will be identified and mined separately in 2.5 to 10-metre-high benches. Ore boundaries will be identified using grade control drilling, blast hole sampling and cross pit trenching.

Ground water is unlikely to influence the stability of the pit walls but may require the need for wet hole blasting. Dewatering boreholes around the pit perimeter will be employed to lower the ground water front ahead of mining faces. In-pit pumping will also contribute to mine water management.

1.7.5 Mining Costs

Contract mining will serve to minimise up-front capital items, which CSA estimates to be USD1.705M. Mine infrastructure and contractor mobilisation account for USD1.05M. Pre-strip costs incurred in the first 3 months will be capitalised at USD3.5M.

Table 1.7.2 shows the estimated life of mine (LOM) operating costs for Arcadia.

Table 1.7.2 Estimated Arcadia LOM Costs

Description	Quantity
Total LOM direct operating cost, USD	USD534,622,542
Total ore tonnes mined (t)	42 324 064
Total waste tonnes mined (t)	143 682 084
Total material mined (t)	186 112 223
Cost/tonne ore mined	USD12.63
Cost/tonne total material mined	USD2.87

Mine expansion costs will be drawn from sustaining capital.

1.7.6 Mine Closure

CSA has formulated a mine closure plan with the objectives to minimise or eliminate public safety hazards, provide long-term stable configurations and reclaim surface disturbances for beneficial use that is consistent with local land use objectives.

The closure and reclamation plan proposed will meet or exceed typical African standards and requirements in anticipation of future guidelines developed in Zimbabwe. Closure and reclamation activities will cover mine and waste dump rehabilitation, and remediation of processing and other surface facilities.

1.8 Mineral Processing

The mineralogy of the Arcadia deposit lithium minerals shows petalite to be dominant, at up to 20% by weight, averaging 13%, spodumene to 7.7% by weight, averaging about 5.5% and Bikitaite to 0.66% by weight, averaging 0.45%. Tantalite averages 119 ppm as Ta₂O₅ throughout the Ore Reserve.

Conventional beneficiation techniques including dense medium separation (DMS) to recover petalite, gravity-based processes to recover tantalite, and froth flotation to recover spodumene have been retained. Key areas of later testing included the use of high pressure grinding rolls (HPGR) technology, ongoing DMS optimisation and locked cycle spodumene flotation. Testwork was carried out on Main Pegmatite (MP) and Lower Main Pegmatite (LMP) ore zones during 2019 and 2020, and the data derived from these programmes has been applied by Lycopodium to current process and engineering design. Optimisation of tantalum recovery was continuing at the time of study preparation.

Two-stage crushing followed by HPGR has been selected to achieve the sub-5 mm crush size required to achieve adequate liberation of petalite for primary recovery by DMS. DMS feed preparation is based on secondary crusher product feeding HPGR crushing operating at medium pressure. Approximately 68% of plant feed will report to DMS at a bottom cut-off size (BCOS) of 0.6 mm. Primary crushing capacity will be set at 2.4 Mtpa from the outset.

The target grade for petalite products is 4% Li_2O ; i.e. 82% petalite. DMS test work has demonstrated that 80% of all DMS petalite concentrates may be produced from Arcadia ores coarser than 1.7 mm and will meet specifications for Technical Grade ultra-low iron product at substantially less than 0.05% Fe_2O_3 . The remaining finer petalite at -1.7 mm +0.6 mm will be suitable as Chemical Grade product. Recoveries of petalite to Technical Grade and Chemical Grade products are expected to be 25% and 6% of plant feed petalite respectively.

The sub-millimetre spodumene grain size limits recovery of spodumene by DMS. Consequently, all ore post gravity recovery will report to the flotation circuit where spodumene is effectively recovered at a grind size P100 of 0.212 mm (P80 0.150 mm). Fatty acid flotation of spodumene is widely practised in the lithium beneficiation industry and Arcadia will be no exception in this regard. The target grade for spodumene concentrate is 6% Li_2O ; i.e. 75% spodumene. Based on flotation data accumulated to date, expected spodumene recovery to concentrate is about 81% for LMP ore and about 55% for MP ore. The fine-grained nature of spodumene and the presence of spodumene-quartz intergrowths (SQI) in MP ore contribute to poorer recovery from this material. The iron content of spodumene concentrate is expected to be about 0.3% to 0.5% Fe_2O_3 .

Spodumene concentrate will be cleaned, and upgraded, by employing mica flotation at natural pH followed by WHIMS to reduce iron contamination. The mica concentrate will be set aside pending potential sale.

Tantalite will be recovered in a dedicated spiral circuit placed in the flotation tailings stream. The rough tantalite will be upgraded to a saleable product containing approximately 25% Ta_2O_5 by the use of conventional gravity concentration methods and magnetic separation. Early test data suggest tantalite recovery at 27% may be achieved. However, ongoing confirmatory work is in progress as at October 2021.

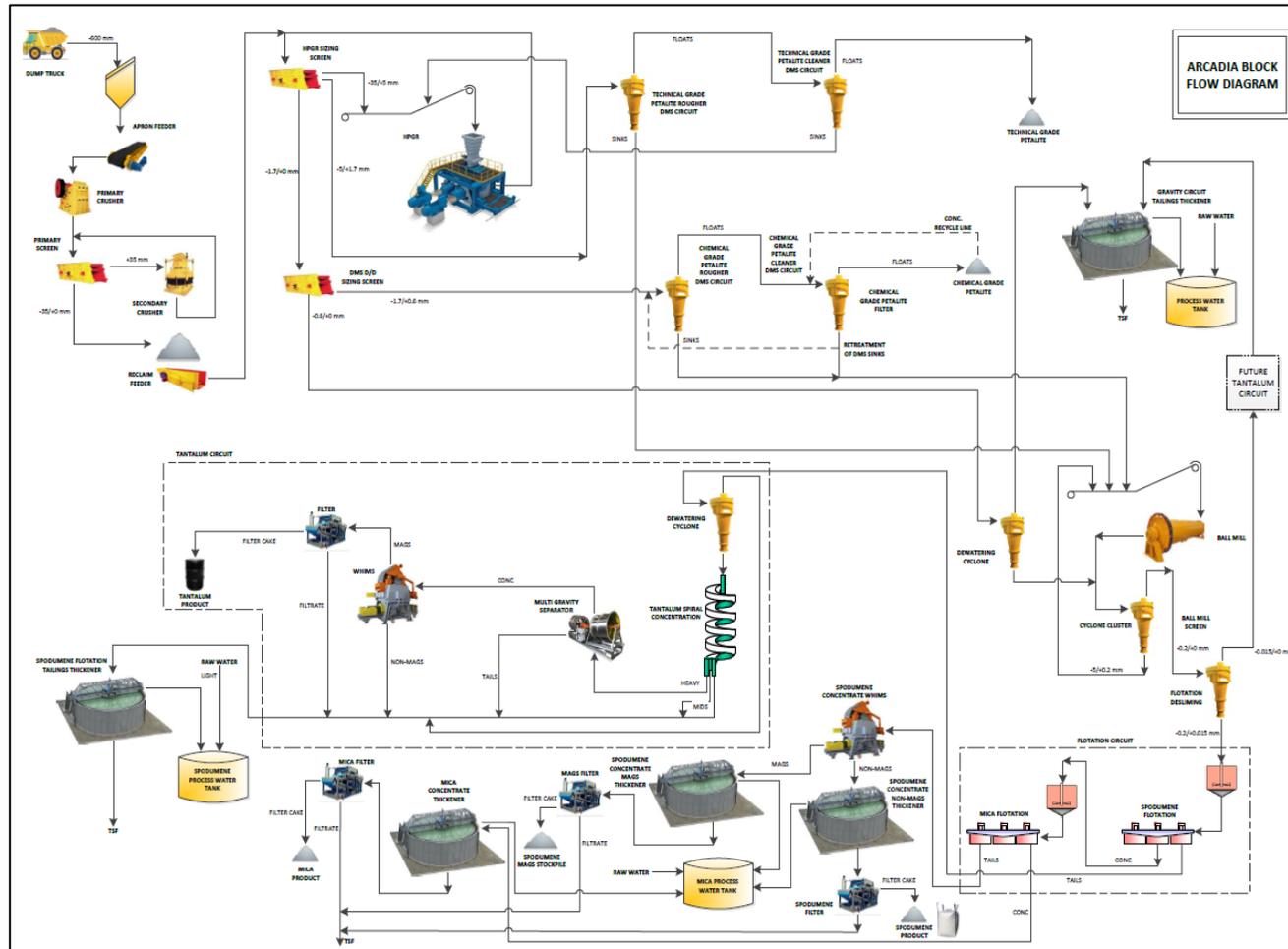
Liquid/solid separation testing has been carried out. This work showed spodumene float concentrate may be filtered to within specification 8% moisture by vacuum filtration. Thickening tests on final flotation tails achieved settling rates up to 23 m/h and supernatant turbidity values to <20 NTU, which is suitable for use as process water. Flocculent consumption was in the range 10 – 25 g/t.

Process water reclaimed within the process flowsheet and returned from the tailings storage facility (TSF) for reuse in the processing plant will be augmented by raw water abstracted from within the Arcadia lease. Two process water circuits will ensure flotation chemicals do not contaminate the DMS circuits.

Process tailings will be disposed of in thickened slurry form to a buttressed, self-raising TSF designed to hold 42.3 Mt. This will comprise a starter wall above which tailings will be stacked to a height of 17 m above natural ground level (NGL) during Years 1 to 4, rising to 53 m above NGL over the remaining mine life. The TSF will incorporate a decant water recovery and return system.

Figure 1.8.1 illustrates the Arcadia process flowsheet.

Figure 1.8.1 Arcadia Flowsheet (Simplified)



Further test work including pilot-scale DMS testing, petalite flotation and tantalum recovery will continue while the Project is under construction in order to better anticipate the response of various ore types ahead of full-scale mining.

1.9 Infrastructure

The Arcadia lithium project is located 38 km east of Harare, Zimbabwe and has access to considerable existing infrastructure and utilities. Arcadia aims to export 127 000 and 265 000 tonnes of product per year during Project phases 1 and 2 respectively. Prospect's offtake agreements call for settlement as FOB Beira, Mozambique. Prospect completed a logistics report during 2019, which investigated road and rail options for transport of product to port.

This found the rail network between Zimbabwe and Beira to be under capacity and that the road network would be the better option. The 22 km route from site via Goromonzi district to the Harare-Mutare road has been identified as the shortest and quickest route to the Mozambique port of Beira. The existing road includes a 12 km stretch of gravel followed by a 10 km stretch of tar. The 12 km gravel stretch of road will be upgraded and maintained to cater for construction vehicle access and for concentrate export.

The existing national highway between Harare and the Forbes border post at Mutare can accommodate the vehicles that will be added to the road network. Similarly, the highway from the Forbes border post to the Beira port is structurally sound. Both sections of roads have been upgraded within the last decade and are well maintained.

1.9.1 Power

The peak electrical load requirement of the operation has been estimated to be approximately 18.5 MVA. The ZETDC Atlanta 132 kV substation comprising 5 feeder bays in use with an equipped spare 20 MW bay is situated approximately 9.5 km from the Project site. PLZ has paid for and secured a dedicated 33 kV, 20 MW spur line from the Atlanta substation.

HT power will feed into the local substation built near the plant to centralise power distribution. Motors above 400 kW will be rated for 11 kV whilst all other electrical equipment will be connected to a 400 V feed. Electrical equipment and installation at Arcadia will comply with relevant IEC standards.

The substation capacity will be established to suit the 2.4 Mtpa case from the outset.

1.9.2 Communications

Mine communications comprising internet and email traffic as well as VOIP telephone communications will be via fibre optic cable incorporated in the overhead power supply line. A back-up satellite communication system will be installed. Site wide WAN systems will comprise a fibre optic backbone linking local wireless routers to users' computers or devices. Printers for non-confidential use will be centralised at network print stations.

A Pronto ERP system will be installed with server located off site at the PLZ offices in Harare.

1.9.3 Water

Site water requirements will be met by the collection of run-off and abstraction of raw water from bores within the Project mining lease area. The Chinyika dam, situated less than 4 km away from Arcadia, has an 8.1 million cubic meter capacity. PLZ has engaged ZINWA with regards to extracting water from the Chinyika dam and have subsequently received supply/extraction rates and guidance on how to get access to the water body. ZINWA has since acknowledged that there is sufficient available capacity in the Chinyika dams to partially meet the mine water balance demand requirements.

Potable water for the offices and village will be produced on site directly from boreholes. A separate fire water reticulation system will be installed in the plant area for the purpose of asset protection.

1.9.4 Waste Management

A land fill site has been planned for disposal of both construction waste and general waste from operations. The land fill will be constructed on a well-drained and accessible site location. Site selection and land fill design will minimise both the rate of infiltration and preserve the quantity of run-off available for infiltration.

Recycling of all materials will be undertaken wherever possible to minimise waste going to landfill. A composting system will be in place with all organic materials composted for use in site gardens.

1.9.5 Fuel

Diesel fuel will be stored in a suitably bunded area and will be replenished when needed. The estimated storage capacity will be 100 000 L, comprising 4 x 25 000 L tanks. Dispensing pumps with secure meters will be installed for filling light vehicles and fuel bowsers.

Bulk lubricants will also be stored within a protected area. This facility will be designed and built by a fuel supplier in Zimbabwe as part of a contract to supply fuel and lubricants. PLZ will operate the facility.

1.9.6 Buildings

Use will be made of pre-fabricated buildings including containerised units and light steel structures. Where applicable, buildings will be designed to utilise decommissioned shipping containers.

Offices have been provided for the following departments:

- Processing Plant management;
- PLZ Mining & Geological management;
- Logistics Department & Security management; and

- The Workshops include ablutions and offices for relevant staff.

Ablution facilities will be provided at the administration and process plant centres. The facilities will be suitable for male and female personnel and will consist of toilets and showers with provision for lockers.

Mine access and plant access control rooms will be provided; these will include a search area and biometric access control. Staff will access the mine through turnstiles to allow mine security to observe each employee entering and exiting the mine site.

A clinic to provide basic health checks for employees will be established at the main gate. An ambulance able to transport persons to a hospital in Harare will be permanently maintained on site.

An assay laboratory will be constructed on site for the operation prior to plant commissioning. The building will include a sample preparation room, metallurgical test work room, wet lab, balance room, instrument room, assay room, reagent store and appropriate offices.

Workshops will be located in the plant area and will provide for mechanical, electrical and instrumentation maintenance. The workshop complex will also incorporate engineering offices, engineering stores and a meeting room.

An explosives magazine will be located in an area easily accessible yet sufficiently remote from existing or planned structures to comply with relevant design standards. The magazine compound will be an area 75 m by 25 m enclosed by a 3 m high wire fence. Explosion-proof lighting will illuminate the area. A manned guard shack shall be located near the entrance to the compound.

1.10 Engineering Design Basis

The engineering design for the processing plant has been based on the Process Design Criteria (PDC), flowsheet development and mass balance. The discipline-specific design criteria also reference the applicable standards, codes and specifications for each element of work.

The initial process plant module has been designed to operate at up to 1.2 Mtpa feed rate on a 24 hour continuous basis comprising 3 x 8 hour shifts per day. A second module will operate on the same basis, increasing plant capacity to 2.4 Mtpa.

The processing plant has a design life of 20 years.

1.10.1 General

The following general considerations were included in the design:

- Conformance with the Project process design criteria;
- Appropriate safety measures for lifting duties;
- Adequate crane and personnel access for equipment maintenance;

- Structural isolation of vibrating equipment;
- Spillage minimisation;
- Adequate flushing and drainage of slurry systems;
- Hydraulically operated spile bar gates on broken ore draw down points; and
- Adequate protection against wear.

1.10.2 Codes Standards and Safety

Engineering design will conform to the latest edition of the relevant SANS Standards or other recognised international standards.

Design principals will be in line with the governing acts and regulations in South Africa where applicable.

1.10.3 Hazardous Materials

The following materials will not be used;

- Asbestos and compounds thereof;
- Poly-Chlorinated Bi-Phenyl (PCB) and compounds thereof;
- Ceramic fibres unless otherwise approved;
- Chloro-fluoro carbons (CFC) and compounds thereof; and
- Radioactive materials unless as part of instrumentation systems.

Known carcinogenic substances; and hazardous materials will be transported and stored in accordance with the relevant SANS Standards.

1.10.4 Engineering Deliverables

Discipline engineering design will conform to detailed contractual obligations in pursuit of the delivery of a fit for purpose ore processing plant.

1.11 Human Resources

1.11.1 Labour Budget & Manning Timeframes

PLZ expects to recruit most personnel either from within Zimbabwe or from Zimbabweans in the diaspora who wish to return to Zimbabwe. Expatriates required for the provision of specialist skills may qualify for temporary visas valid for one year to at most two years as advised by the Department of Immigration of Zimbabwe and guided by the Immigration Act, Chapter 4:02 on issuance of Temporary Employment Permits, under which transfer of skills is possible.

PLZ also intends to invest in in-house training programmes to ensure proper alignment of all employees with the desired world class standards in the production of Lithium concentrates.

In order to focus on the core business, PLZ intends to outsource some of its activities such as security services, garden services and logistics to local Contractors.

PLZ has developed an operational organogram for use during operations. The anticipated manning establishment is described in Table 1.11.1.

Table 1.11.1 Operations Manning Budget

DEPT/SECT	Departmental Heads	Section Heads	Professionals	Supervisory Personnel	Technicians & Artisans	Semi-skilled & Unskilled	TOTAL
Mining Dept	1	3	4	2	4	20	34
Production Dept-Plant	1	4	4	28	8	105	150
Production Dept-Engineering	0	1	5	3	20	19	48
Human Resources Dept	1	2	2	0	1	1	7
Safety, Health & Environmental Affairs Dept	1	1	4	0	4	1	11
Commercial	2	5	5	5	5	8	29
Company Secretary's Dept	1	0	0	1	0	4	6
TOTAL	7	16	24	39	42	158	285

An operational readiness plan has been developed and a take-on period has been incorporated in the overall project schedule.

1.11.2 Employment and Remuneration Strategy

PLZ is confident of attracting and engaging the most suitable human capital candidates to work at its Arcadia operation, in that the labour market in Zimbabwe has an abundance of qualified, experienced and competent managerial and technical skills in all sectors of the economy. All recruitment efforts to date have been met with overwhelming response, and successful identification of appropriate candidates.

PLZ desires to be an employer of choice and/or the most preferred employer among other comparative and competitive operators in the mining industry of Zimbabwe, particularly relevant when considering the restoration of investment confidence. Furthermore, the Company recognises that the engagement and development of qualified and competent Human Resources base is a significant game changer in ensuring overall business operational effectiveness. Based on these premises, PLZ is committed to paying competitive remuneration packages in order to attract, motivate and retain qualified and competent staff for maintenance of its competitive edge.

1.11.3 Applicable Labour Legislation

The Labour Legislation in Zimbabwe aims to strike a balance between the Employer's quest for minimal work disruption, flexible employment contracts and affordable wage rates through Collective Bargaining Agreements against Employees' expectations for work place democracy and a living wage.

The Labour Act provides that either party may terminate the Contract of Employment by giving the necessary notice period stipulated in the Labour Act. This provides flexibility to business where it may wish to reduce labour. Where labour disputes arise, there are clear dispute resolution processes to be followed. If properly followed the Company may avoid litigation and/or minimise disruption of productive time.

1.11.4 Training

PLZ is committed to ensuring high standards of Technical, Supervisory and Management competence. To ensure this, PLZ will deliver training programmes to its employees and Management in all facets of technical operations, supervisory and management roles training. All employees including contractors will receive basic safety training as part of the induction process.

1.12 Project Execution

The Project Execution Plan (PEP), developed by Lycopodium, outlines the project execution strategy and the proposed overall management methodology for the development of the Project. The scope of works for the Project addresses engineering, procurement and construction management (EPCM), commissioning and handover to PLZ.

1.12.1 Project Execution Strategy

At a high level, there are two teams responsible for Project execution being:

- Prospect Lithium Zimbabwe - the Owner's team; and

- A yet to be nominated EPCM team.

The proposed execution strategy for the EPCM scope of works for the Project is based on the provision of EPCM and commissioning services on a cost reimbursable basis for the development of the process plant and related facilities utilizing horizontal discipline-based contract packaging.

The PEP includes strategies for all aspects of project management and control across all functions and phases under the EPCM contractor's responsibility. The PEP only provides high-level execution philosophies. Detailed project execution plans per function will be developed during the detailed engineering phase.

Specialist consultants will be contracted to PLZ to address specific elements of the Project outside the core competency of the EPCM contractor and PLZ, including mining, geotechnical, environmental and the tailings storage facility (TSF) and water harvesting bore holes.

The PEP has considered the following:

- Project scope;
- Contracting strategy;
- Resourcing and organisation;
- Engineering and detailed design;
- Procurement and logistics.
- Construction and construction management;
- Mine development;
- Project controls;
- Project schedule;
- Health, safety, environment and community; and
- Commissioning, handover and operational readiness.

The PEP will be updated during the detailed engineering design and procurement phase of the Project.

1.12.2 Owners Team Scope of Works

The activities to be directly managed by the Client are as follows:

- Recruitment of Owner's project execution staff;

-
- The management of the EPCM contractor;
 - Communications for site-wide construction and process plant;
 - The management of the mining contractor;
 - The management of the TSF contractor;
 - Management and implementation of all environmental and social management plan activities;
 - Management of the risk register; and
 - Operational readiness planning and implementation.

Other PLZ activities include:

- Purchase of construction insurances;
- Purchase of an ERP system for the operations team;
- Legal consulting for assembly of EPCM and mining contracts, standard purchase orders and small services contracts;
- Ongoing planning and consultation with relevant authorities; and
- Ongoing local representation with landowners and other stakeholders.

1.12.3 EPCM Contractor's Scope of Works

The Project scope outlines the services to be provided for the delivery of the Project. The scope of the Project includes the mine development, process design, engineering, detailed design of the facilities, all construction management, commissioning and operational readiness to enable mine and plant production to be achieved.

The approach is to implement a 1.2 Mtpa processing plant taking cognisance of the proposed doubling up of the throughput to 2.4 Mtpa during year 4. The only piece of equipment which would be sized for the future state would be the primary jaw crusher and associated peripheral infrastructure.

A 20KVA overhead power facilities to be installed.

The following major areas are part of project execution scope for the EPCM Contractor:

Project Management including but not limited to:

- Purchase requisition management;

-
- The performance of detailed design and the preparation of the design documentation;
 - Full procurement services for EPCM scope including quality assurance functions;
 - Construction management, coordination and administration services;
 - Outdoor switchyard (connecting to incoming 33 kV power line supplied by ZEDTC); and
 - Commissioning.

Administration of the manufacturing, construction contractor and vendor defects liability period will be by PLZ and the monitoring is not part of the EPCM contractor's scope of services.

1.12.4 Project Controls

Project controls will be the responsibility of the Owners' team for the Project as a whole. The controls provide relevant and consistent budget, costs and schedule reporting to the Project team. This provides the tools to efficiently manage the Project at the level of detail necessary to meet Project objectives.

Key aspects of Project controls to be applied during construction include:

- Costs;
- Scheduling;
- Approvals;
- Change management;
- Communications; and
- QA/QC.

1.12.5 Project Execution Schedule

A high level 26-month execution schedule has been developed for the Project. The implementation strategy is structured into four broad stages:

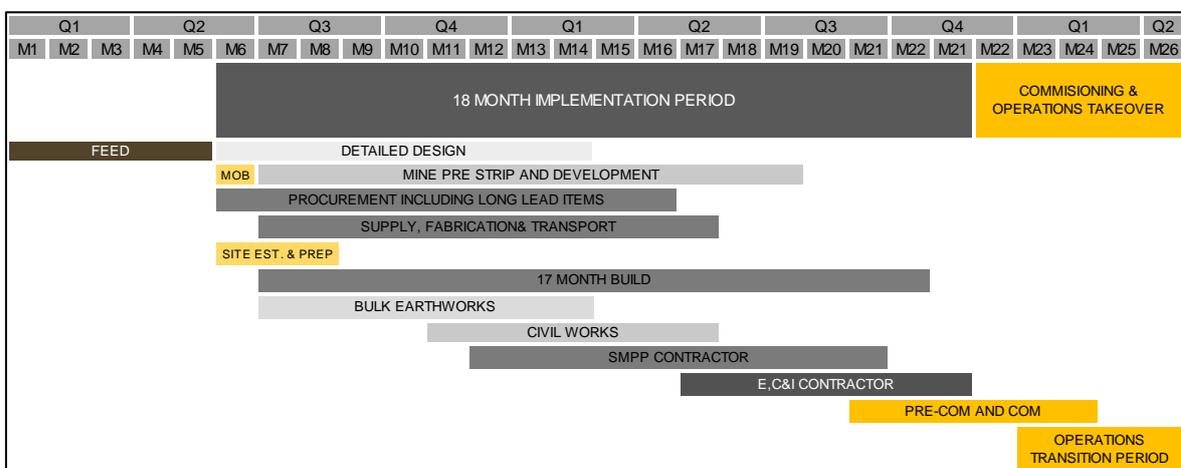
- Engineering;
- Procurement;
- Construction; and
- Commissioning and handover.

The following activities have been identified as the key schedule constraints due to their interconnection with Project activities:

- Wet season effect on starting earthworks for plant terraces and TSF;
- Delivery of equipment and materials from off shore; and
- Availability of services required for construction.

The estimated durations of key activities associated with the Project are summarized in Figure 1.12.1

Figure 1.12.1 Project Execution Schedule



1.12.6 Operational Readiness

The aim of operational readiness is to achieve smooth transition from Project construction through commissioning to first concentrate production and on to sustainable production thereafter.

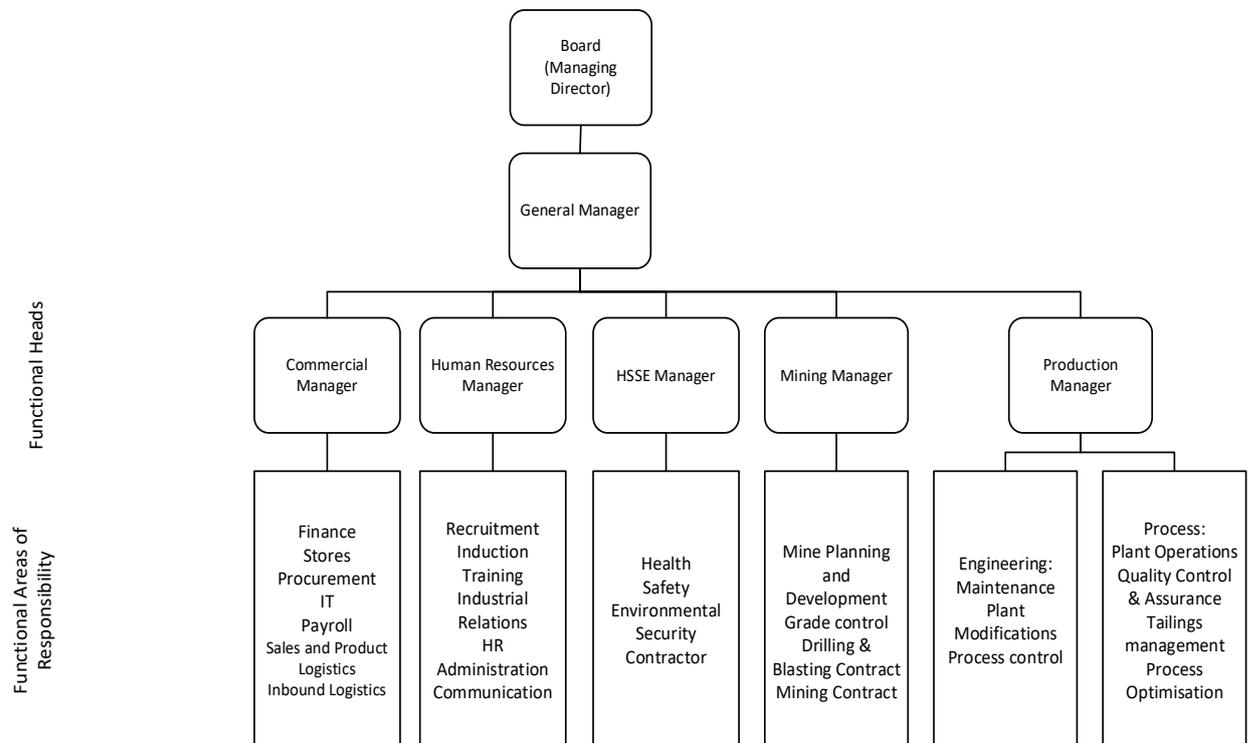
All activities associated with operational readiness lie within the Owner’s team budget and scope. Specialist contractors may be engaged directly to assist in this process and a level of cooperation will be built into the EPCM contract where required, to enable interfacing specifically with respect to equipment spares supply and first fill requirements.

1.13 Operations Management

The Project operation will be based on continuous production, working 365 days per year, 24 hours per day. The Project will maximise the employment of Zimbabwean nationals, who will receive specialised training prior to commencement of operations. Expatriate numbers will be minimal and on an as-needs basis for specialised requirements.

The Project will be under the leadership of the PLZ General Manager who will report to the Managing Director of Prospect. As illustrated in Figure 1.13.1 each functional area will be managed by a Functional Head reporting to the General Manager.

Figure 1.13.1 Arcadia Functional Management Structure



Drilling, blasting and mining will be carried out by relevant in-country contractors under the direction of the Mining Manager. Mine planning and grade control will also be under the Mining Manager supported by relevant specialists.

The Production Manager will manage the operations and engineering function. This department includes the laboratory and metallurgy sections responsible for grade and quality control / assurance.

All health, safety and environmental functions will be managed by the Health Safety Security and Environmental Manager. The Security Contractor will report to the HSSE Manager.

The Human Resources Manager will manage the human resources functions including recruitment, induction, training, industrial relations, human resource administration and communication.

Finance, procurement and stores, information technology support, payroll administration, sales and inbound and outbound logistics will be managed by the Commercial Manager.

The Company Secretary will be responsible for legal support, statutory compliance and reporting, government liaison, risk management and coordinating Corporate Social Responsibility (CSR). Arcadia Lithium will establish a committee to develop and implement the CSR strategy and plan.

1.14 Information Management

PLZ will employ a knowledge management system to capture, control, securely store and share all relevant knowledge as developed during the Project and operational phases of the Project.

The knowledge management system will expand to incorporate information generated during the operational phase which will be managed on an ongoing basis. This will include the following information:

- Policies and operating procedures;
- Commercial documentation;
- Mining data;
- Metallurgical data and accounting;
- TSF data; and
- HSE monitoring information.

All financial information will be captured and maintained in the Enterprise Resource Planning (ERP) Unix-based System, which will incorporate a Computerised Maintenance Management System (CMMS) that will be used to capture all equipment maintenance and service information.

PLZ has settled on preferred hardware options, which are readily available, satisfy plug and play simplicity and which are readily maintained or replaced.

Similarly, software selection is consistent with financial and enterprise packages in use within the mining industry. With the exception of the ERP system, all applications will operate within a MS-Windows environment. A local IT service provider

Quotes have been obtained from in-country companies for the provision of a fibre line linking the mine site to Harare, where ISP and data storage and protection services will be contracted to a local service provider.

PLZ intends to recruit a full time IT Administrator, with strong technical skills to manage all facets of the IT network in the future, and the mine site will also have a full time LAN Administrator to support the IT Administrator

1.15 Health Safety Environment & Community

The Project has been designed to comply with the following guidelines, standards and conventions:

- International Finance Corporation Performance Standards of 2012;
- Equator Principles of June 2013; and

- International Labour Organisation conventions.

An EIA was carried out in 2017 with a revision in March 2019 to comply with in-country legislation. The EIA included a baseline study, which covered the current status of the biophysical and socioeconomic environment of the Arcadia mine claims area. Site-specific environmental resource evaluations were completed, including assessment of soil, water, air, wildlife, vegetation, noise, socioeconomic, archaeology and local culture.

An EIA was carried out by a Zimbabwean consultant (Mr. Paul Chimbodza) in 2017 with a revision in March 2019 to comply with in-country legislation. Subsequent to the issue of the EIA a gap analysis was conducted by SRK Consulting (SRK) of South Africa.

1.15.1 Industrial Health, Safety and Fire Control

All employment conditions will conform to the standards as set out in the Labour Act and Mines and Minerals Act. The company will use these as baseline to develop their own internal HSE system. Dust generation constitutes the most prevalent environmental and safety hazard for the Project. Mining, ore transport, stockpile activity and ore crushing are operations that have the potential to generate significant quantities of airborne dust.

Given silica is a component of the orebody, there may be some risk of silicosis from sustained exposure to operationally generated dust. The Project will apply dust generation and exposure mitigation measures to ensure protection from exposure. These measures may include suppression and the use of appropriate PPE.

There is no specific standard for fire risk, which will be addressed in standard building codes applicable to Zimbabwe.

1.15.2 Environmental and Community Risk Assessment

In the performance of the work carried out to draft the EIA, members of the community were consulted. Where appropriate, old graves were relocated in accordance with the local tradition and applicable legislation.

There are no built-up areas within, or adjacent to the mine area, and all persons living on the property are employees of either the farmer, or PLZ, and have no rights to occupation.

Mining sites will be secured with adequate fencing and notices, whilst access to the mine and plant will be strictly controlled through designated points of entry. All persons visiting the site will be required to complete an induction process.

1.15.3 Community

The Arcadia environmental impact assessment addresses the community stake in and interaction with the Project.

Stakeholder views will be considered through planned interactions with the stakeholders scheduled at an agreed frequency. Stakeholder grievances raised in accordance with the stakeholder awareness procedure will be dealt with accordingly and feedback will be provided once the situation has been investigated. Typically, feedback will be provided at one of the interaction sessions to allow the whole of the stakeholder body to be made aware of the ongoing investigation into issues raised. These interactions will allow other members of the community to raise awareness.

1.15.4 Environmental Approval

An application for the Project to proceed was made following completion of the Project EIA. The Zimbabwe Environmental Management Authority (EMA) issued a certificate (licence) on the 24th May 2017 giving approval for the Project to proceed with construction and operation.

A baseline study was undertaken for the EIA. The study covered the current status of the biophysical and socioeconomic environment of the Arcadia mine claims area. Site-specific environmental resource evaluations were completed, including assessment of soil, water, air, wildlife, vegetation, noise, socioeconomic, archaeology and local culture.

The baseline study was considered inadequate to meet the international guidelines and therefore further work has been undertaken by PLZ to meet these guidelines. This work was based on recommendations arising from the gap analysis carried out by SRK. The resulting expansion report was accepted by the authorities and PLZ has been issued with a new licence valid until April 2022 and is renewable annually.

An environmental monitoring programme will be initiated upon commencement of development and construction activities on the Arcadia mine lease area. Various aspects of the environment will be monitored on a daily or weekly basis to mitigate the effect of the operations on the environment, employees and stakeholders. The proposed monitoring programme will cover water, dust, noise and impacts on native fauna. Revegetation programmes will also be initiated on disturbed ground.

Erosion and sediment transport during rainfall events will be managed within a run-off mitigation plan. Waste rock will be used to curtail erosion on areas susceptible to erosion in the wet season. Topsoil's removed during mining and construction will be used to re-vegetate areas towards the end of the mine life.

1.15.5 Mine Closure Plan

The objectives of closure and reclamation activities are to minimise or eliminate public safety hazards, provide long-term stable configurations and reclaim surface disturbances for beneficial use that is consistent with local land use objectives.

The closure and reclamation plan proposed by Prospect Lithium Zimbabwe will meet or exceed typical applicable standards and requirements in anticipation of future guidelines developed in Zimbabwe.

The closure and reclamation plan addresses the following activities

-
- Preparation and planning for closure during operations;
 - Rehabilitation measures during closure;
 - Rehabilitation measures during temporary suspension of operations;
 - Rehabilitation measures during states of inactivity; and
 - Stability activities in the post-closure phase

The present estimated closure cost of USD10.3 m will be reviewed annually to reflect changing circumstances and levels of risk. This will ensure that the accuracy of closure costs is refined and improved with time and will assist with management and mitigation of high-risk issues.

1.15.6 SHE Management and Monitoring Plan

The purpose of the Health, Safety and Environmental Management Plan is to clearly define the systems, strategies and responsibilities for the effective management of safety, health and the environment for the Project. The main objective of the SHE management plan is to prevent incidents that affect personnel, plant and the environment during construction activity on the Project. The following four basic principles of safety will underscore construction and operations:

- Competent employees;
- Safe equipment;
- Safe working environment; and
- Emergency management.

The SHE management structure will incorporate the following key components:

- Environment management plan (discussed above);
- Risk management plan;
- Communications protocols and competencies; and
- Incident response protocols.

1.16 Stakeholder Relations

Engagement with key stakeholders and public communication are very important components of the Study and were on-going from the commencement of the Study to the completion of the work. Stakeholder meetings, Focus Group meetings and one-on-one meetings, Prospect's website and Company announcements are key elements of Prospect's stakeholder engagement strategy. PLZ will continue to maintain, open and transparent communications with all stakeholders in regards to the Project.

1.16.1 Key Stakeholder Engagement and Communication

Key stakeholders who have been considered and engaged with through the DFS process include:

- Local community groups and community services were engaged to gather community attitudes to the proposed project;
- The Office of the President and Cabinet of Zimbabwe, Ministries of the Zimbabwe Government and Provincial Ministries;
- Local suppliers and service suppliers;
- Current employees and contractors;
- Non-government organisations (NGO's);
- International trade organisations and representative bodies; and
- Local and offshore media outlets.

PLZ will continue to facilitate communication with the stakeholders of the company via numerous distribution channels and means of engagement.

There are five key ministries within the Zimbabwean Government that are particularly relevant to the development of the Project. PLZ has established contact with these key ministries and has close and active contact with the Office of the President and Cabinet (O.P.C), which is the lead office in the Government of Zimbabwe. The key ministries are:

- Ministry of Mines and Mining Development (MMMD);
- Ministry of Foreign Affairs and International Trade;
- Ministry of Finance and Economic Planning;
- Ministry of Transport and Infrastructure Development; and
- Ministry of Lands, Agriculture and Rural Resettlement.

The operation will be responsible mainly to the Ministry of Mines and Mining Development (MMMD) for operational matters including its mining concession compliance and reporting.

Although the above Ministries are the key Ministries in regards to the Arcadia Lithium Project, Prospect continues to maintain communication with all Ministries and Zimbabwe Government officials, to ensure the long term and healthy relationship with the Government of Zimbabwe continues.

1.17 Risk Management

Risk management addresses anticipated problems aiming to mitigate losses and identify potential gains prior to implementation of the project and is based on identification and assessment of risk issues. Risk assessment is intended to identify risk which could impact the final designs. Effective management of these risks will reduce PLZ's exposure to risk. During operations risk management will support health and safety issues and operational budgets, reducing the risk of overruns. It is important to establish effective risk management from the onset of the project that continue through the entire life cycle of the project.

The Project risk register was developed in a workshop setting on several occasions in 2018, 2019 and 2021 through the participation of representatives from ADP, LMA and PLZ. The risks were developed around the following base categories:

- Business and financial;
- Technical process;
- Resources and mining;
- Brownfield complexities;
- Site execution;
- Project management;
- Political; and
- Socio-economic.

Risks were identified in each of these categories, the likelihood of occurrence and the potential consequences associated with these risks were determined using conventional risk ranking approach to build the Project risk matrix. Mitigation actions were developed and recorded in the matrix. The risks were then reassessed after the mitigation actions had been considered and each risk was assigned a revised rating as a Residual Risk.

At the completion of this process the team recorded no high risk items, 13 moderate risk items and 5 low risk items. Some of the mitigations to the high impact risks discussed were as follows:

1.0 Business & Financial:

- Close consultation with ZIDA, parent ministry to SEZ. Close consultation with the Ministry of Mines, and Ministry of Finance, RBZ Governor
- To complete alternative pathway that requires a lower capital hurdle. Staged OFS
- Remuneration packages to be well structured and attractive (incentives, perks, retention bonus, etc.)

2.0 Technical Process:

- Key independent review of process design
- Recruitment of competent personnel and training plan.
- Construct and operate a pilot plant to inform operating ore variabilities 6 months ahead of production. Implementation of robust grade control to enable a correct blend of feed to the plant.
- Perform additional variability testing during Feasibility Studies, and during life of mine operations.

3.0 Project Management (Execution):

- A comprehensive Project Execution Plan including a Risk Management Plan needs to be prepared prior to this phase commencing, which must include the ongoing management of the identified risks.

4.0 Socio-Economic

- Safe operational protocols, focus on OHS
- Design and implement a sustainable CSR strategy

5.0 Political

- Put on-site arrangements in place through SEZ including Customs and Zimra on site presence.
- Key stakeholder relationships

1.18 Market Analysis

Lithium products including concentrates of petalite and spodumene are consumed in the glass / ceramics industries and as feedstock to lithium chemicals production, notably lithium carbonate and lithium hydroxide. Sales are often described in terms of lithium carbonate equivalent (LCE) which contains 40% lithia (Li_2O).

Industry consulting firm Roskill presents a base-case scenario in which global lithium consumption is expected to grow at 18% pa to reach ~1.85 Mt in 2030. This quantity is expected to meet the requirements for the manufacturing of ~2 400 GWh across all battery applications and the material requirements of historic end-uses of lithium including ceramics, greases, polymers and glass among others. The base-case scenario is aligned with the EV targets envisioned by the European Union and China through their EV regulations. Although estimates of EV demand were uncertain due to the economic shocks of the COVID-19 crisis, this estimation should be an accurate representation of long-term lithium demand assuming that a new battery technology does not disrupt the existing Li-ion battery supply chain and its raw materials.

For the purposes of this study, Prospect has used Roskill's base case forecast to 2030 of 1 845 ktpa LCE as the forecast demand. Battery market demand is forecast to grow at 22.9% per annum, while total non-battery demand is forecast to grow at about 1.8% pa in line with global GDP. Table 1.18.1 shows the forecast growth in global lithium demand.

Table 1.18.1 Lithium Demand Forecast

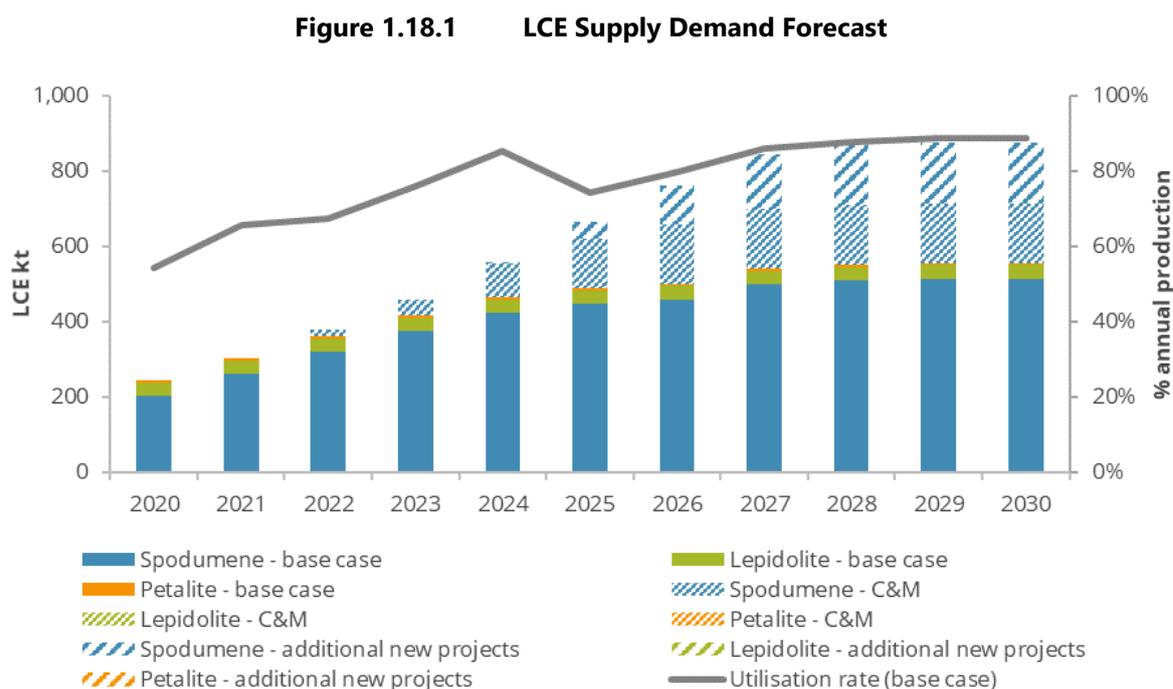
Demand		2019	2020	2025	2030	CAGR (2019-2030)
Battery Market Demand	t LCE	175 000	207 000	786 000	1 696 000	22.9%
Total Other Demand	t LCE	123 000	98 000	134 000	150 000	1.8%
Total Demand		298 000	305 000	920 000	1,846,000	18%

Based on announced capacity expansions and new project schedules, within Roskill's base-case parameters, supply is expected to grow at 9% CAGR to 2030. Under this scenario supply is forecast to surpass 500 kt LCE in 2026 before reaching 556.1 kt LCE by the end of the decade. This represents an increase of more than double expected output in 2020.

At this production level, around 54% of operational industry capacity is being utilised. This highlights a high degree of latent capacity of existing producers. When combined with assets on care and maintenance 379.9 ktpa of mine capacity is not currently being utilised for production. However, utilisation rates are expected to increase as converters consume accumulated stocks and new feedstock requirements increase.

In terms of mineralisation type, spodumene production is forecast to dominate lithium concentrate supply. In 2020, 84% of global concentrate production was spodumene mineralisation, this is expected to increase to 95% by 2030 including potential supply from additional new projects. When including supply across all forecast categories and mineralisation types, a total of 876.9 kt LCE could be produced in 2030.

Figure 1.18.1 illustrates present day projections of supply and demand for LCE products.



1.18.1 Product Specifications

Typical specifications for chemical grade spodumene and petalite concentrates are:

	Spodumene	Petalite
• Li ₂ O	>6.0%	>4.0%
• Fe ₂ O ₃	<1.0%	<0.80%
• Moisture	<8.0%	<8.0%

Very little petalite concentrate has been used to produce lithium chemicals. Lepidolite concentrate which has similar lithia grades to petalite has been used in China. Due to the lower lithia grade, petalite concentrate needs to be at a minimum of 4.0% Li₂O, below which calcination costs and lithia recovery in the chemical plant are negatively impacted. Concentrate moisture content adversely impacts transport costs. In the case of the Arcadia Project, for every 1% increase in moisture, there is an added 1% increase in transport cost from mine gate to the final destination.

Typical specifications for technical grade petalite concentrate are:

-
- Li_2O >4.0%
 - Fe_2O_3 <0.05%
 - Na_2O <0.50%
 - K_2O <0.50%
 - Moisture <6.0%

1.18.2 Marketing Strategy

The target customers for Arcadia's chemical grade lithium concentrate products are:

- Lithium chemical converters;
- Downstream lithium users including producers of cathode, battery and vehicle manufacturers; and
- Trading companies.

Technical Petalite Product

There are four principal consumers of technical-grade lithium products. These are ceramics, glass-ceramics, glass and metallurgical powders. Mineral concentrates within these sectors are used in tandem with technical-grade carbonate as a flux or part of feedstock batches for end products. Spodumene concentrate is consumed across all four first-use sectors, whilst petalite is predominantly utilised by ceramics and glass-ceramics producers.

Mineral demand in the markets key to petalite demand of ceramics, glass-ceramics and glass is forecast to increase by 2% CAGR to 2030, reaching 515 kt 4% Li_2O concentrate. By 2030 the value of global technical mineral concentrate demand from these three markets could reach over US\$650 million pa.

The target customers for Arcadia's technical grade petalite concentrate product are:

- Glass/Ceramics cooktops and ovenware manufacturers;
- Fibre glass manufacturers;
- Specialty glass manufacturers;
- Ceramics manufacturers; and
- Metallurgical powder manufacturers.

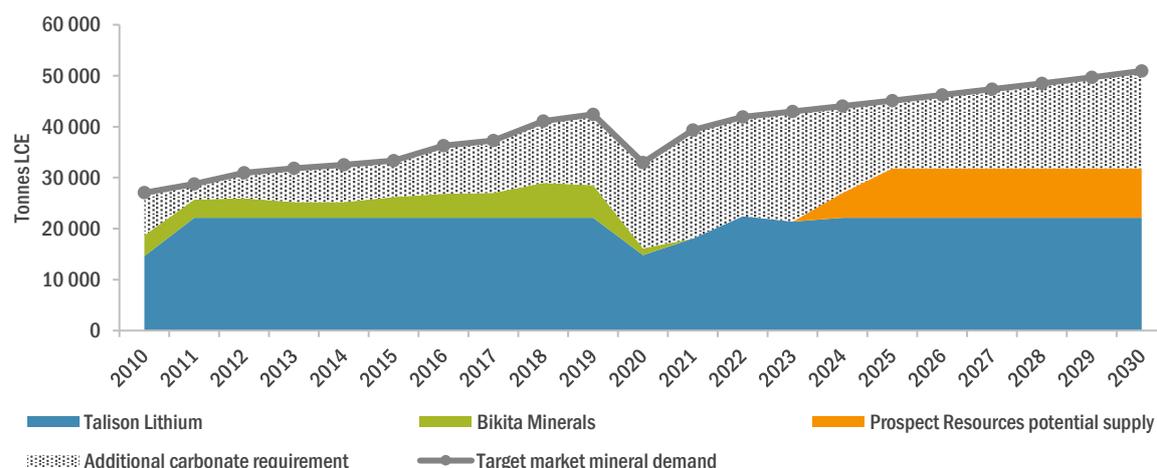
The consumption of petalite as feedstock within its core target markets has generally been restricted by availability and reliability of supply rather than demand and its differing qualities to that of spodumene. For those that utilise technical mineral concentrates, petalite may be used interchangeably with spodumene if product specifications fall within the parameters of the customers' needs.

Roskill believes that lack of supplier diversity, evolving demand trends and substitution dynamics are likely to increase the size and scope of markets available for petalite. These factors present as potential opportunity for market entry to provide customers greater choice by decreasing reliance on limited sources.

Clear glass producers represent a potential new market for petalite should Prospect Resources produce commercial scale volumes of ultra-low iron concentrate via flotation as test work has indicated. This is, however, subject to customer testing and certification procedures with definitive offtake agreements needing to be established.

Figure 1.18.2 illustrates the growth in petalite demand envisioned by Roskill.

Figure 1.18.2 Technical Mineral Supply and Target Market Mineral Demand, 2010-2030 (t LCE)¹



Note: 1 – Target market mineral demand is the sum of petalite's three core target markets being ceramics, glass-ceramics, and glass

Should Prospect Resources enter production in 2024, Arcadia's 9.7ktpy LCE petalite capacity could be potentially consumed by the market without the need for displacing units of carbonate. A technical mineral supply shortfall of 28.8 kt LCE is forecast by 2030. This would be reduced to 19.1 kt LCE should Arcadia be producing at design capacity.

Roskill considers the ability of technical sectors to continue sourcing carbonate to cover a lack of mineral supply moving forward to be the biggest risk to meeting forecast demand growth. An evolving demand landscape in glass-ceramic cooktops and renewable energy sectors further broadens potential markets for petalite. Demand from such industries have been quoted by market participants to be increasing at rates above that of GDP.

1.18.3 Offtake

Prospect has entered into two offtake agreements with Sinomine of China and Sibelco of Belgium. The Sinomine agreement calls for the delivery of Li_2O concentrate on the earlier of the delivery of 48,160 lithia units or over the first 7 years from the commencement of production. Under this agreement Prospect is entitled to increase the quantities of spodumene and decrease the quantities of petalite in order to take advantage of the premium prices available elsewhere for the technical grade iron petalite product for the glass and ceramics market, provided the lithia units of the combined spodumene and petalite do not change.

The agreement provides for attractive pricing linked to the Lithium Carbonate CIF price under harmonised code HS283691, as published by Global Trade Atlas (owned by IHS Markit) and is calculated on an FOB Incoterms® 2010 basis at the loading port of Beira, Mozambique.

The agreement with Sibelco provides for the delivery of up to 100,000 tonnes per annum of technical grade petalite concentrate for 7 years, totalling up to 700,000 tonnes. Prospect and Sibelco will annually agree binding delivery quantities, pricing and end-customer contract terms for the following year. Pricing is to share end-customer sales receipts in an agreed proportions after recovery of their respective costs.

1.18.4 Lithium Pricing

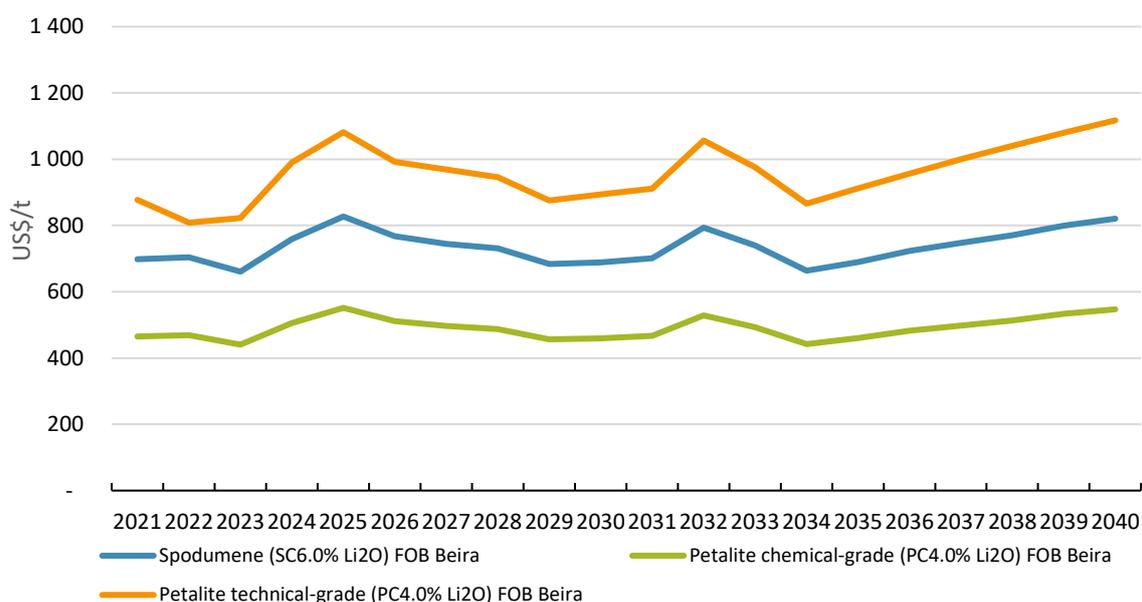
Chemical-grade concentrate is the largest market for lithium-based concentrates as a result of increasing demand from chemical converters producing carbonate and hydroxide chemicals for use in batteries. Market demand for concentrate feedstock is primarily for spodumene products containing 5.5% Li_2O - 6.2% Li_2O .

Chemical-grade spodumene concentrate prices are tied to battery-grade lithium carbonate and hydroxide prices, with respective formulas between buyers and sellers varying and commercial details remaining unknown in the public domain. As contracts appear to favour the buyer when refined product prices rise, the price ratio for spodumene concentrate on an LCE equivalent basis increases slightly during periods where refined product prices rise, increasing from 46% in 2022 to 54% in 2025.

Spodumene concentrate prices on an arm's length basis are primarily driven by the availability of material to third-party buyers in the open market (non-contracted units). As a result of major concentrate producers either being integrated from mine-to-refined (Tianqi Lithium/Albemarle) or having capacity fully committed under offtake agreements, Roskill forecasts an increasing tightness in the availability of units for spot buyers as the demand for feedstock from non-integrated refineries in China is expected to increase. Higher prices are therefore paid for such material within a forecast premium range of USD70-120/t. Spodumene concentrate prices are forecast to increase overall through to 2040, averaging US\$785/t CIF China or US\$736/t FOB Beira.

Prices for technical-grade spodumene and petalite concentrates used directly in the glass, glass-ceramic, ceramics and metallurgical powder industries typically follow movements in the technical-grade lithium carbonate price. Contracts commonly have limitations to up- and down-sides to fluctuations in the latter. Technical mineral concentrate prices are capped by the equivalent lithium carbonate price, which may be used as a substitute in most of the major end-use applications. Figure 1.18.3 shows anticipated movements in pricing of spodumene and petalite products.

Figure 1.18.3 Forecast Spodumene and Petalite Concentrate Prices, 2021-2040



The higher prices received by technical mineral concentrates compared to their chemical-grade counterparts is largely owing to the smaller niche markets, beneficial product characteristics and lack of supplier diversity. The market value of technical petalite is derived from more than purely the lithium oxide component, but also the alumina and silica (application dependent) contained in concentrate, and lower impurity levels. The business case underpinning the use of petalite over spodumene is dependent on the first-use application and the additional benefits the product yields over the latter in the final product being produced. In ceramics, for example, petalite does not require pre-calcination like that of spodumene before use in the batch mix.

Roskill has undertaken a value-in-use (VIU) assessment of technical petalite for use by producers of pyro-ceramics. The methodology analysed the calcination costs of spodumene at a mineral converter in China and the subsequent cost of shipping the calcined material to customers based in South Korea/ Japan. The VIU determined a value of US\$75/t to be applied in addition to the contained lithium oxide in the petalite concentrate. Roskill considers it reasonable for technical petalite to be tied to the technical-grade carbonate price as a percentage of its product value. Roskill estimates the average annual market value of technical petalite in the period 2021-2040 to be US\$1,369/t, reflecting 11.3% of the long-term average price for technical-grade lithium carbonate (China spot basis). Under commercial terms with Sibelco, Prospect has advised Roskill that 70% of the determined customer price is expected to be payable, which reflects the FOB Beira price. Under the 70% basis, Roskill forecast the long-term annual average technical petalite price to be US\$959/t.

1.18.5 Tantalum

Arcadia will produce by-product tantalum as a gravity concentrate derived from rejects from the petalite DMS circuits and from spodumene flotation tailings. Typical tantalum concentrate specifications of relevance to Arcadia are as follows:

- Ta₂O₅ 20% min
- SnO₂ 5% - 20% max dependent on smelter
- As 0.25% max
- Sb 0.2% max
- U₃O₈ + ThO₂ 0.1% above which the concentrate is classified as a Class 7 Dangerous Good
- Particle Size 2 mm max

For Arcadia, the two key specifications will be tantalum and radionuclide content. While 20% Ta₂O₅ content is the minimum requirement, the smelters prefer concentrates with a minimum of 25% Ta₂O₅ content. Tantalum concentrates from Central Africa, the largest supplier of primary tantalum material, typically grade around 30% Ta₂O₅.

Test work to date indicates that the tantalum concentrate produced at Arcadia will be a Class 7 Dangerous Good. This requires specific packaging and labelling and affects transportation options and costs and reduces the potential customer base. This has been factored into the Arcadia Financial Model.

Most tantalum production currently comes from conventional mines and artisanal production, along with a growing amount as a by-product of lithium mining. There is also some secondary supply (syncons) that is sourced from slags generated during the processing of tin ores (mostly ore from the DRC that is smelted by Malaysia Smelting, with the slag, containing 3% tantalum). Recycling is an important and growing portion of the supply of tantalum units.

World consumption was 2,292 t Ta in 2019 requiring 5.7 Mlb Ta₂O₅ (1.22 conversion factor Ta to Ta₂O₅ plus smelter losses), having grown by 2.4% pa from 2010. Unlike the lithium chemical market, the tantalum market is small and mature. Capacitor manufacture is the largest market for tantalum (36%) followed by alloy additives (20%). Roskill's latest forecast indicates overall demand growth of approx. 4.5% per annum over the next ten years. Alloy additives are estimated to grow by 5.3% per annum on the basis of a strong outlook for the aeronautics industry where tantalum is used in the nickel alloys for jet engine turbines. Capacitor growth on the other hand is expected to grow modestly at 4.4% per annum, challenged by ongoing reduction in capacitor size (less tantalum powder but with a higher capacitance) and competition from other, cheaper capacitor types. Table 1.18.2 shows Roskill demand forecast from 2021.

Table 1.18.2 Tantalum Demand Forecast

Product	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ta, tpa	2,182	2,394	2,522	2,640	2,749	2,842	2,955	3,042	3,097	3,111
Ta ₂ O ₅ , Mlb	5.86	6.44	6.78	7.10	7.39	7.64	7.95	8.18	8.33	8.37
Concentrate at 25%	10,648	11,682	12,307	12,883	13,415	13,868	14,420	14,844	15,113	15,181
Ta ₂ O ₅ , tpa	8	2	7	3	5	8	0	4	3	1

Supply of tantalum into the market in 2020 was 5.13 Mlb Ta₂O₅. Of this, 4.8 Mlb Ta₂O₅ was produced from primary sources such as mines producing tantalum concentrate, with the remainder coming from secondary sources such as recycling and tin slags. Of the 4.8 Mlb Ta₂O₅, the vast majority is produced as tantalum concentrate. Over half this concentrate was sourced from artisanal and small-scale mines in Central Africa (Rwanda, DRC and Burundi). Tantalum production from larger scale operations is generally in the form of by-products from lithium or tin production, as the tantalum price is too low to justify the operation of stand-alone tantalum hard rock resources.

The tantalum supply demand dynamics in the short term will be very much impacted on by the growth in tantalum output from global lithium operations, which have the potential to introduce an additional 20% into the market.

The main customer bases for the tantalum concentrate are:

- Tantalum smelters;
- Capacitor manufacturers; and
- Traders.

As the tantalum concentrate is likely to be a Class 7 Dangerous Good, this precludes sales to a number of smelters, particularly those located in Europe and Japan. The main smelter customers able to accept Class 7 material will be those based in the United States, Thailand and China.

In the past, the tantalum smelters entered into long term offtake contracts with the larger concentrate producers. However, this has changed to short term contracts (less than one year) or sales based on purchasing one or two containers. This is due to:

- The reduction in the number of large producers for the majority of product being sourced from less reliable artisanal mining; and
- Movement in the tantalum price resulting in longer term contract price being significantly misaligned to the spot price, which is generally higher than contract.

Prices over this decade have been volatile. Between 2010 and 2018, annual average prices have ranged from USD57/lb Ta₂O₅ to USD119/lb Ta₂O₅. At the end of 2017, the price was about USD88/lb Ta₂O₅ but is estimated to have declined to USD81/lb Ta₂O₅ in 2018 due to supply disruptions. The price in 2018 year peaked at over USD100/lb Ta₂O₅ but has retreated to about USD85/lb Ta₂O₅.

For the purposes of this study, Prospect has adopted the pricing forecast generated by Roskill, which generates an average price of USD84/lb Ta₂O₅ over the life of mine.

1.18.6 Product Shipping, Storage and Distribution

All lithium concentrates will be transported in 1 t bulka bags by flat top trucks approximately 590 km by road from the mine site to the port of Beira, Mozambique. The product will be sold on an FOB Port of Beira Incoterms® 2010 basis which will require Prospect to load the vessel after which the Buyer is responsible for onward transportation, costs and risk.

The preferred transport of lithium concentrates globally is loose bulk. There is a considerable cost saving by not using bulka bags and the product is much easier to load, unload and transport in loose bulk form. It is likely that new customers will require product be delivered in loose bulk and logistic options to transport the concentrate in this form need to be considered.

Packing of Tantalum concentrate for transportation will comprise loading the product into 210 litre steel open head drums. The drums will be strapped to wooden pallets and stuffed into 20-foot general purpose sea containers at the rate of one to two containers per month. As the product is designated as Dangerous Goods Class 7, both the drums and the sea container will require appropriate labelling and secure storage.

Walvis Bay in Namibia is presently the only port in southern Africa that currently accepts Class 7 products. Previous tantalum operations in Mozambique had entered into discussions with the Mozambican Government to allow shipping of Class 7 Dangerous Goods through Mozambique ports before premature mine closure. Prospect will follow up on these discussions as utilising a Mozambique port will significantly reduce shipping transit time and transport costs.

Generally, tantalum concentrate is sold on a CIF Incoterms® 2010 basis requiring Prospect to organise transportation from the mine site to the customers' port of delivery.

1.19 Capital Cost Estimate

The capital cost estimate prepared by Lycopodium is based on a phased approach for the construction of a 2.4 Mtpa processing plant implemented in two 1.2 Mtpa stages. The front-end comminution circuit has been sized to suit the expanded capacity of 2.4 Mtpa.

The total estimated capital cost for the 1.2 Mtpa plant is USD140 744 441 including an EPCM component of USD14 559 868. The capital estimate has been prepared in accordance with Lycopodium Cost Estimating Procedures and fulfils the requirement of the AACE Class 2 Estimate ("Bankable Feasibility Estimate") with an accuracy range of $\pm 12.5\%$. The estimate is presented in USD as at Q2, 2021.

The estimated cost of expansion of the processing plant to 2.4 Mtpa is USD71 657 678.

TSF costs have been provided separately.

Mining operations will be carried out by a contractor who will provide substantially all of the equipment required for ore and waste excavation and transport. Consequently, the PLZ component of mining capital will be confined to the construction or purchase of contractor support facilities, mobilisation charges, pre-stripping and haul roads.

The estimated project capital costs for both 1.2 Mtpa and 2.4 Mtpa cases have been structured into the following major categories.

- Direct costs;
- Indirect costs; and
- Contingency costs.

Contingency costs in this study form a cost provision for construction unknowns, which may not be quantifiable, but which may eventuate as Project development progresses.

A summary of the estimated capital cost is presented in Table 1.19.1 below.

Table 1.19.1 Arcadia Capital Cost Summary – USD M

Area	1.2 Mtpa	2.4 Mtpa
Mine development cost	1.4	0
Mine pre-strip	3.5	0
Process plant and infrastructure - direct	105.1	53.3
Process plant and infrastructure – indirect	26.3	8.5
TSF	4.4	9.9
Total (direct and indirect costs incl. Contingency)	140.7	71.7

1.19.1 Owner's Costs

Owner's costs of USD13.3 M and USD14.2 M for each phase have been included in the Project capital budget. The latter figure reflects the high cost of the TSF expansion.

1.20 Operating Cost Estimate

The overall financial model has been developed by Prospect Resources, with LMA providing certain inputs, which have been used by Prospect Resources towards developing the annual ore treatment costs within the project cost model. The operating cost database developed by LMA was populated with updated Vendor costs and has been developed to include administration, logistic, mobile equipment, labour and laboratory costs.

Lycopodium has prepared the operating cost estimate for the Arcadia Project to an accuracy level within the range $\pm 15\%$. The estimate is based on contract and vendor quotations, detailed estimates of power, consumables and labour requirements and contemporary assessment of prevailing Government royalties, taxes and fees relevant to the operation of mining businesses in Zimbabwe. The estimate is presented in USD as at Q3, 2021.

The operating cost estimate for 1.2 Mtpa plant feed, excluding mining is based on the production of concentrates as shown in Table 1.20.1.

Table 1.20.1 Concentrate Production Costs

Cost Component	1.2 Mtpa			
	USD pa	USD/t dry feed	USD/t dry concentrate	% Cost
Power	5,975,753	4.98	28.94	12.0%
Operating Consumables	15,020,493	12.52	72.74	30.2%
Maintenance	2,194,579	1.83	10.63	4.4%
Laboratory	264,000	0.22	1.28	0.5%
All Labour	6,271,813	5.23	30.37	12.6%
Total Processing	29,726,638	24.77	143.96	60%
General & Administration Costs	2,167,143	1.81	10.49	4.4%
Mobile Equipment	796,934	0.66	3.86	1.6%
Logistics	16,995,940	14.16	82.31	34.2%
Total G&A	19,960,017	16.63	96.66	40%
TOTAL including G&A	49,686,655	41.41	240.62	100%

Table 1.20.2 provides a summary of the estimated total Arcadia operating cost in terms of concentrate production, comparing 1.2 Mtpa and 2.4 Mtpa operation.

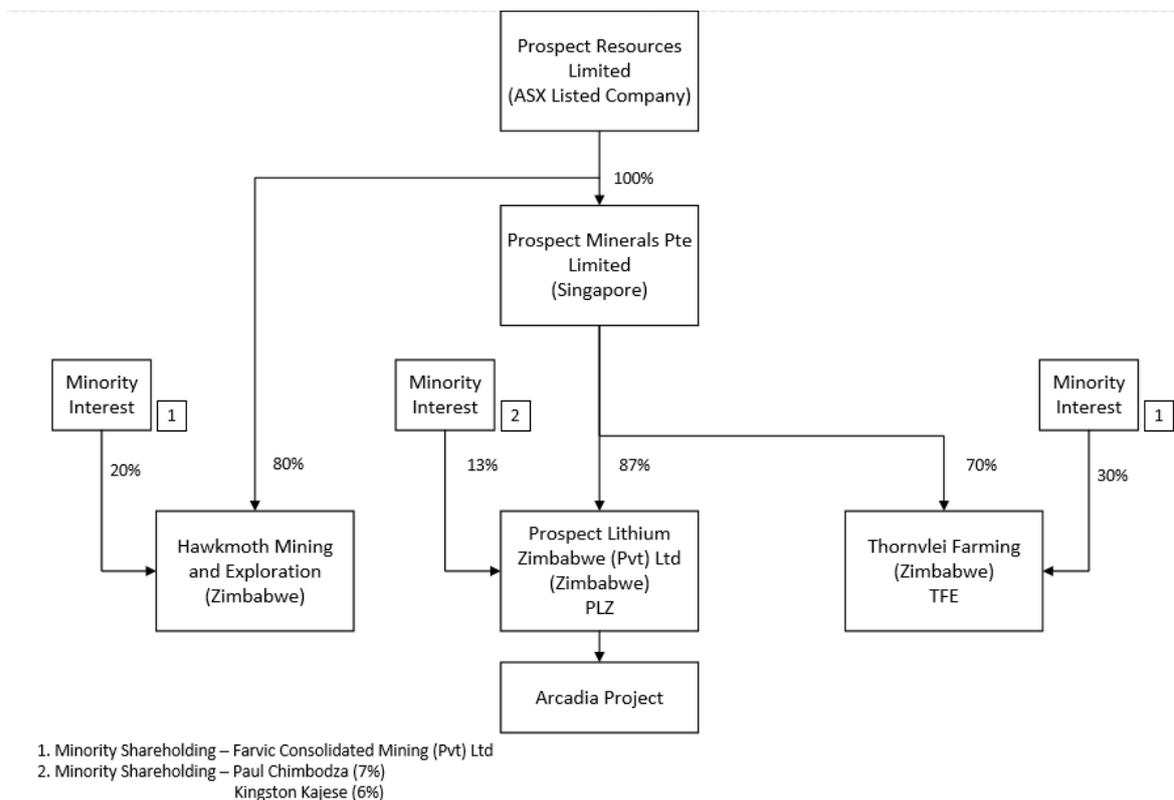
Table 1.20.2 Arcadia Operating Cost Summary – USD/t Concentrate

Operating cost area	LOM USD/t
C1 Cost	
Mining	102
Processing	162
Support Services (SS)	24
Administration	19
Packaging and Logistics	85
Selling costs	40
Ta credit	(54)
Total C1 Costs	378
C2 Costs	
C1 Costs + depreciation	434
C3 Costs	
C2 + Corporate G&A + Royalties	452
AISC (C1 + Sust Capex + Ta)	386

1.21 Ownership

Figure 1.21.1 **Error! Reference source not found.** illustrates the Prospect group structure.

Figure 1.21.1 Prospect Resources Group Structure



1.21.1 Mining Rights

Mining lease number 38 dated 16 August 2018 has been issued to PLZ (“Mining Lease”). The Mining Lease was granted pursuant to Part VIII of the Mines and Minerals Act in respect of an area of 1031 hectares. It states that the principal mineral to be mined is lithium and the other mineral to be mined is gold. The provisions of this lease extend to exploitation of mineral resources, use of other natural materials and abstraction of water for primary purposes. The lease grant period is permanent and is dependent on an annual inspection.

1.21.2 Contractual Obligations

The land which is the subject of the Mining Lease is currently farmed pursuant to a lease granted by the Government to Professor K Kajese. The farm is operated in a joint venture pursuant to an arrangement between Professor Kajese and Prospect’s subsidiary, Thornvlei Farming Enterprises (Pvt) Ltd (TFE). The joint venture has a term of 15 years commencing on 13 September 2016. Pursuant to a further agreement dated 28 January 2017 between Professor Kajese and PLZ, Professor Kajese has granted PLZ various rights permitting it to access, construct and operate a mine on the farm.

The sale of minerals is governed by the Minerals Marketing Corporation Zimbabwe (MMCZ). Agreement has been reached with the MMCZ on rates and procedures, which are detailed in a Memorandum of Agreement No 031/2018/MMCZ/EXA/SINO.

PLZ has entered into a 7 year offtake agreement with Sinomine Resource (Hong Kong) International Trading Co., Limited, for the delivery of up to 48 160 lithia units within 7 years of commencing production.

1.21.3 National Project Status

The Company has been granted National Project Status which exempts it from certain duties and taxes. It also enhances the status of the Project which assists with the movement of goods into Zimbabwe during the construction period.

PLZ was licenced as a Special Economic Zone (SEZ) on 11th March 2019. This status provides the Arcadia Project with various fiscal and exchange control benefits.

1.21.4 Special Export Zone Status

PLZ was licenced as a Special Economic Zone (SEZ) on 11th March 2019. This status provides the Arcadia Project with various fiscal and exchange control benefits. In particular SEZ status provides for 15% corporate tax rate and a 5 year tax holiday from Project commencement.

The SEZ benefits also extend to exemption from import/export permitting and duty free import of raw materials and capital equipment for use by the Project.

1.21.5 Government Compliance

Table 1.21.1 lists a number of acts that govern the operation of the Arcadia Project.

Table 1.21.1 Mining-related Acts of Zimbabwe

Legislation	Highlights
Mines and Minerals Act (Chapter 21:05)	Provides guidelines for exploration, mining and processing of minerals in Zimbabwe. It lays out requirements for acquisition and registration of mineral rights, prospecting, pegging of underground extension, mining lease and right of claimholders and landowners, abandonment and forfeiture, royalties, management and safety issues.
Water Act (Chapter 20:24)	The act provides guidelines for the optimum development and utilization of water resources through controls of rate of abstraction. It also safeguards pollution of surface and groundwater systems through the waste and effluent disposal regulations.
The Pneumoconiosis Act (Chapter 15:08)	The act states that it is an offence to employ a person suffering from pneumoconiosis in a dusty environment. Section 23 adds that for the employment of a worker in a dusty environment, there is need for that worker to be a holder of a certificate allowing him to work under such conditions.
Forest Act (Chapter 19:05) revised 1996	The act protects the clearance of forests with particularly reference to areas covered by endangered species. It also permits the use of timber as support in underground workings, which tends to encourage cutting of trees.
Parks and Wildlife Act (20:14) revised 1996	Relates to wildlife protection, protecting wild animals, their territories and natural habitat. It also permits the displacement of the wild animals to make way for projects.
Suppression of Money Laundering Act (Chapter 24:24)	The act provides rules and regulations for proactive measures to contain money laundering and makes provision for the identification, tracing and seizure and confiscation of tainted property. Normally money laundering involves a process by which illegally obtained money or property is given an appearance of having originated from legitimate sources, money derived from illegitimate sources such as illegal arms sales, drug trafficking, smuggling of precious metals and minerals, corruption or fraud.
Public Health Act (Chapter 15:09)	This act regulates the spread of infectious and venereal diseases and the provision of safe water supplies and sanitary facilities.
National Museums and Monuments Act	The act seeks to protect areas of national heritage and areas which archaeological significance.
Explosives Act (Chapter 307, 1961)	Deals with the manufacture, purchase, possession, delivery, storage, use and conveyance of explosives. Licenses and/or permits are required for these activities.

1.22 Financial Analysis and Evaluation

A detailed financial analysis of the Arcadia Project has been prepared by Infinity Corporate Finance ("Infinity") of Perth employing MS Excel® in order to understand the sensitivities of the project to certain key variables. Infinity brings an independent perspective and a rigorous process focus to the development of the model via:

-
- Modelling in line with Industry Best Practices;
 - Providing an objective review of data inputs provided, and working with both internal technical resources and consultants;
 - Balancing the level of detail with a simple presentation and layout that make the resulting model flexible, simple to use; and
 - Their peer review and internal quality control, which ensure confidence in model outcomes.

Modelling has been undertaken on a current cost basis in USD. No impacts of inflation have been incorporated.

The financial base case analysis has been prepared using inputs provided by Lycopodium, Prospect and various consultants (in-house and external). Values derived from metallurgical test work, market research and mineable resources, and rationalised mining and engineering estimates have been incorporated in the analysis. Due to the standard industry processes used in the processing plant many of the fundamental variables are based on standard industry practice or experience.

The financial model has been built around two key foundational inputs. The first is the anticipated production process flow of material from the crushing circuit through to product bagging and tailings disposal. The second key input is a mass balance, which is used to reconcile the volume of ore inputs mined to the volume of concentrate outputs. Costs of each sub-process have been applied to the volume of input, throughput or output of each sub-process which in turn generate a value of input for the next sub-process or the value of a final output (mineral concentrate).

Table 1.22.1 summarises the economic outputs of the model.

Table 1.22.1 Key Staged OFS Economic Outcomes

Key metric (100% basis)	Unit	Stage 1 (1.2 Mtpa)	Stages 1 + 2 (2.4 Mtpa)	LOM
Pre-production capital expenditure	US\$M	140	72	212
Further expansion capital expenditure	US\$M			39
Cash operating cost	US\$/t conc.			378
All-In-Sustaining-Cost (AISC)	US\$/t conc.			386
Chemical spodumene price	US\$/t conc.			735
Technical petalite price	US\$/t conc.			955
Chemical petalite price	US\$/t conc.			490
NPV10% (pre-tax, real basis, ungeared)	US\$M			465
IRR (pre-tax, real basis, ungeared)	%			35%
NPV10% (post-tax, real basis, ungeared)	US\$M			408
IRR (post-tax, real basis, ungeared)	%			34%
Project net cash flow (post-tax)	US\$M			1,468
Payback period (post-tax, from first	years			5.42

Table 1.22.2 summarises life of mine operating metrics.

Table 1.22.2 LOM Operating Cost Metrics

Key metric (100% basis)	USD/t
C1 Cost	
Mining	102
Processing	162
Support Services (SS)	24
Administration	19
Packaging and Logistics	85
Selling costs	40
Ta credit	(54)
Total C1 Costs	378
C2 Costs	
C1 Costs + depreciation	434
C3 Costs	
C2 + Corporate over heads & Royalties	453
AISC (C1 + Sust Capex + Ta)	386
AIC (AISC + Capex)	431

Figure 1.22.1 illustrates Project LOM cash flow profile, based on commencement in 2022.

Figure 1.22.1 Annual Cashflow Profile

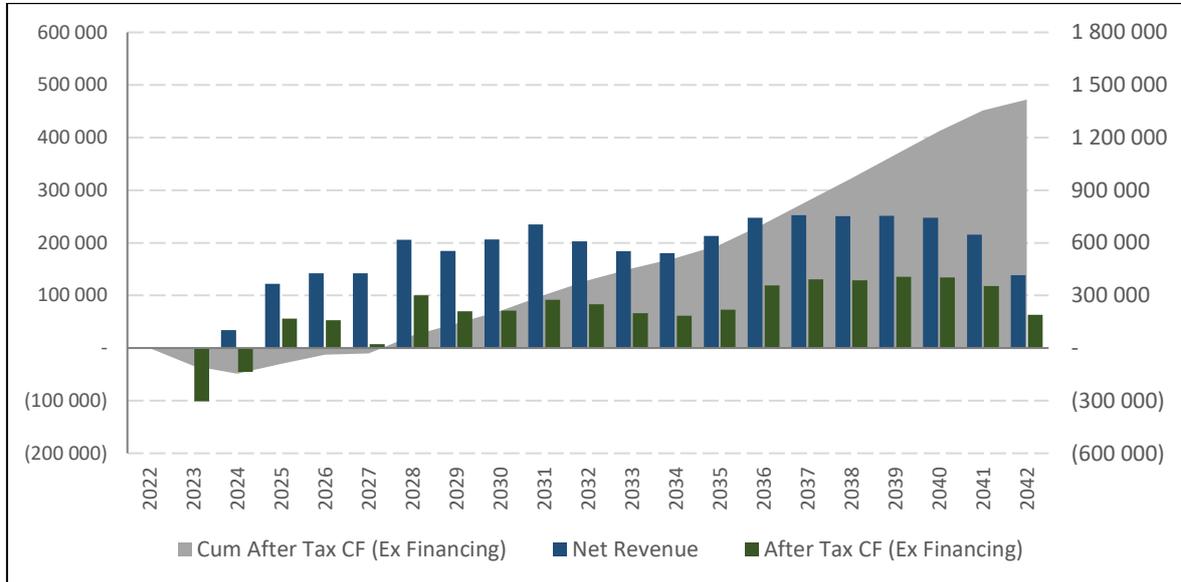
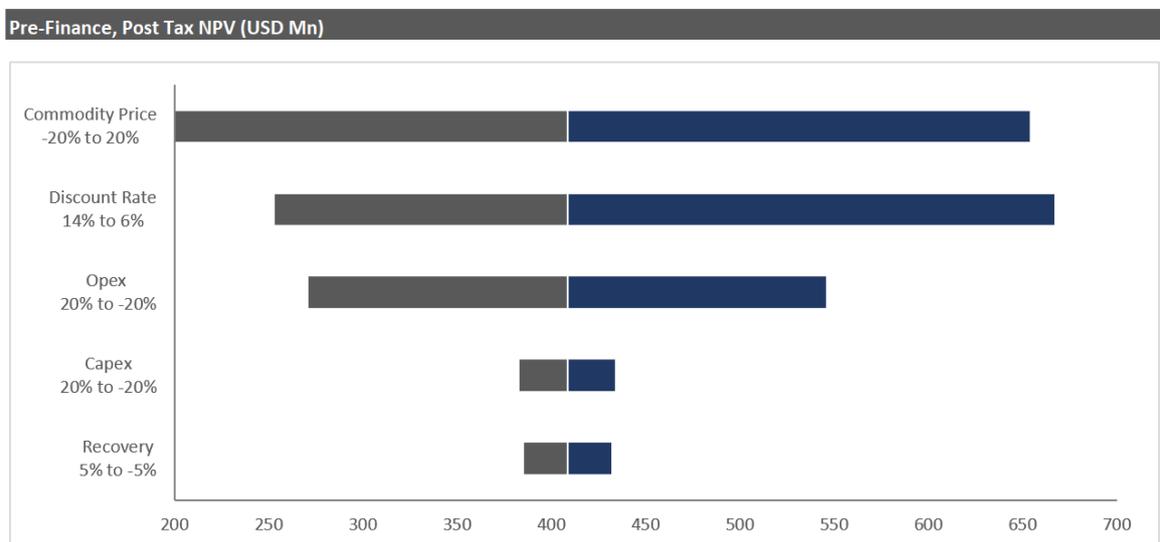


Figure 1.22.2 illustrates Project sensitivity to variances in selected key variables.

Figure 1.22.2 Sensitivity of Project NPV10 to Selected Variables





CSA Global
Mining Industry Consultants
an ERM Group company

ARCADIA LITHIUM PROJECT

Ore Reserve Report

REPORT Nº R318.2021
8 September 2021





Report prepared for

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Project Name/Job Code	R318.2021, PSCRES02
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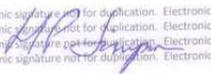
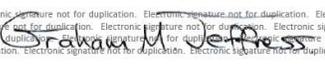
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The interpretations and conclusions reached in this Report are based on current scientific understanding and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for absolute certainty.

The ability of any person to achieve forward-looking production and economic targets is dependent on numerous factors that are beyond CSA Global’s control and that CSA Global cannot anticipate. These factors include, but are not limited to, site-specific mining and geological conditions, management and personnel capabilities, availability of funding to properly operate and capitalise the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, unforeseen changes in legislation and new industry developments. Any of these factors may substantially alter the performance of any mining operation.



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Appendix C	JORC Table 1, Section 4

1 Introduction

The Arcadia Lithium Project (“the Project”) is owned 100% by Prospect Zimbabwe Limited (PZL) which in turn is 87% owned by Prospect Resources Limited (Prospect). In December 2017, an Ore Reserve estimate was announced to the market. A Definitive Feasibility Study (DFS) was completed in November 2018 for a 2.4 million tonnes per annum (Mtpa) processing facility. An “updated DFS” was commenced in early 2019 with the intent to add and integrate several successful plant optimisation studies that would deliver significant enhancements to the economics of the Project.

An updated Ore Reserve estimate was completed in November 2019 based on improving spodumene and petalite prices and an updated plant configuration that was geared around improving petalite recoveries.

Prospect has requested CSA Global Pty Ltd (CSA Global), an ERM Group company, to provide an updated Ore Reserve statement prepared by a Competent Person in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“JORC Code, 2012 Edition”). The reporting period will be for August 2021.

The preparation of the Ore Reserve estimate relies on the October 2017 Mineral Resource statement by Ms Gayle Hanssen, Consulting Geologist at Digital Mining Services.

Table 1, Sections 1 and 2 of the JORC Code (2012 Edition) relating to Sampling Techniques and Data and Exploration Results are presented in Appendix A. Table 1, Section 3 relating to Estimation and Reporting of Mineral Resources is presented in Appendix B. Table 1, Section 4 relating to Estimation and Reporting of Ore Reserves is presented in Appendix C.

2 Location and Tenure

2.1 Location and Access

The Arcadia Lithium Project is located approximately 38 km east of Harare, Zimbabwe. The Project's elevation ranges between 1,300 m and 1,420 m above mean sea level. The Project is accessed via both a sealed road and a non-sealed road from Harare. The lithium concentrate is planned to be hauled directly to the port of Beira, which is located in Mozambique, an approximate distance of 580 km by road (Figure 1). A section of road, approximately 20 km long, will need to be upgraded for the haulage of concentrate from the mine to the port.



Figure 1: Project location

2.2 Project Description

The Project is expected to consist of an open pit mine, a dense medium separation (DMS) and froth flotation process plant, tailings dams, waste rock dumps, water harvest and storage dams, stores, and associated infrastructure.

Spodumene and petalite concentrate will be hauled from the Arcadia mine site to the Port of Beira. Tantalite concentrate is planned to be packed into 205-litre steel drums, sealed and exported via Port of Walvis Bay, Namibia in standard shipping containers. The reason for the destination of Port of Walvis Bay is that the tantalite concentrate contains radionuclides in excess of 0.1% meaning it must be stored, handled and shipped as a Class 7 dangerous good.

2.3 Approvals

The Arcadia Lithium Project has had all key approvals for the commencement of operations.

2.3.1 Tenure

All project activities are contained on granted Mining Lease number 38 (Figure 2) and a number of associated Mining Claims, principally number 23269. The mining lease was issued to Examix Investments Pty Ltd (trading as PLZ) on 16 August 2018 and is granted pursuant to part VIII of the *Mines and Minerals Act* (MMA). The Mining Lease covers 1,031 hectares with lithium being the principal mineral to be mined. The Mining Claims cover areas where mining falls outside the Mining Lease. Prospect has given written assurance that the

Mining Claims carry equal footing to the Mining Lease when it comes to mining material and stockpiling ore and waste.

MINING AFFAIRS BOARD
HARARE

Date of Issue 16 August 2018


ZIMBABWE

MINING LEASE TITLE

Registered No. 38

THIS IS TO CERTIFY THAT, under and subject to the provisions of Part VIII of the Mines and Minerals Act [Chapter 21:05], a Mining Lease has this day been issued in the name of—
EXAMIX INVESTMENTS (PVT) LTD - ARCADIA MINE

Particulars whereof are as stated hereunder:

Mining District MASHONALAND EAST

Principal mineral to be mined LITHIUM

Other minerals to be mined GOLD

Area of lease in hectares 1 031 hectares
(Stated in words ONE THOUSAND AND THIRTY-ONE.) hectares

Special Conditions NIL

Description of Area AN AREA SITUATED ON THORN
VLEI FARM

Registered Mining Locations incorporated AS PER ATTACHED SCHEDULE

Registered Mining Locations (Precious Metal) for which Extra Lateral Rights preserved:
N/A approved by Mining Affairs Board

Signed [Signature]
Chairman Mining Affairs Board

Figure 2: Mining lease title



2.3.2 *Environmental Assessment and Approval*

Arcadia has been granted an Environmental Impact Assessment (EIA) certificate to operate at the mine site. This certificate allows Prospect to operate in accordance with part XI of the *Environmental Management Act* (EMA) under the specified terms and conditions.

3 Resources

A Mineral Resource estimate for the Arcadia Project was completed by Ms Gayle Hanssen of Digital Mining Services. This Mineral Resource estimate was completed on 25 October 2017. The Competent Person for this Mineral Resource estimate is Ms Hanssen, who is registered as a Professional Scientist with the South African Council for Natural Scientific Professions (SACNASP). Ms Hanssen has sufficient experience relevant to the style of mineralisation under consideration and to the activity she is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Mineral Resources (JORC Code).

The Mineral Resource estimate has been completed with the inclusion of historical and recently validated drillhole information with a data cut-off date of 30 June 2017.

The Mineral Resource estimate was updated on 8 April 2019 due to improved rock boundaries and a better understanding of the minor lithium minerals.

The Mineral Resource estimate was reported in accordance with the JORC Code (2012 Edition) using two separate cut-off grades as tabulated below in Table 1 and Table 2.

Table 1: Arcadia Mineral Resources ($Li_2O \geq 0.2\%$)

JORC classification	Tonnes (Mt)	Grade Li_2O (%)	Contained Li_2O (kt)	Grade Ta_2O_5 (ppm)	Contained Ta_2O_5 (Mlb)
Measured	15.8	1.12	176.9	113	3.9
Indicated	45.6	1.06	483.6	124	12.5
Inferred	11.2	0.99	111.3	119	2.9
Total	72.7	1.06	770.2	121	19.4

Notes:

- Figures above may not sum due to rounding.
- Significant figures do not imply an added level of precision.

Table 2: Arcadia Mineral Resources ($Li_2O \geq 1.0\%$)

JORC classification	Tonnes (Mt)	Grade Li_2O (%)	Contained Li_2O (kt)	Grade Ta_2O_5 (ppm)	Contained Ta_2O_5 (Mlb)
Measured	9.8	1.43	140.5	123	2.7
Indicated	26.2	1.37	358.4	128	7.4
Inferred	5.2	1.38	71.8	114	1.3
Total	41.2	1.39	572.4	125	11.4

Notes:

- Figures above may not sum due to rounding.
- Significant figures do not imply an added level of precision.

The following two sections (Figure 3 and Figure 4) depict the pit designs for the Main Pit (4 Stages) and the Satellite Pit (2 Stages) with ore blocks that are greater than 1.0% Li_2O . The Arcadia main pit section has been taken on a Northing of 8,034,275 whilst the Satellite pit section is on a Northing of 8,035,200.

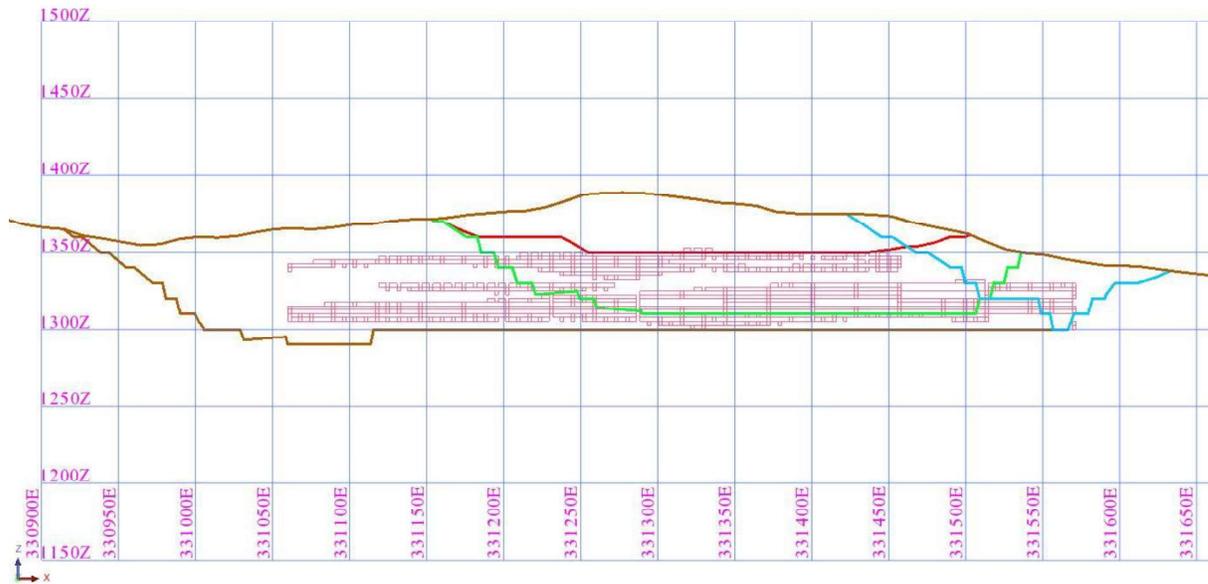


Figure 3: Arcadia Main Pit Section 8,034,275N – 4 Pit Design Stages – Li₂O ≥ 1.0%

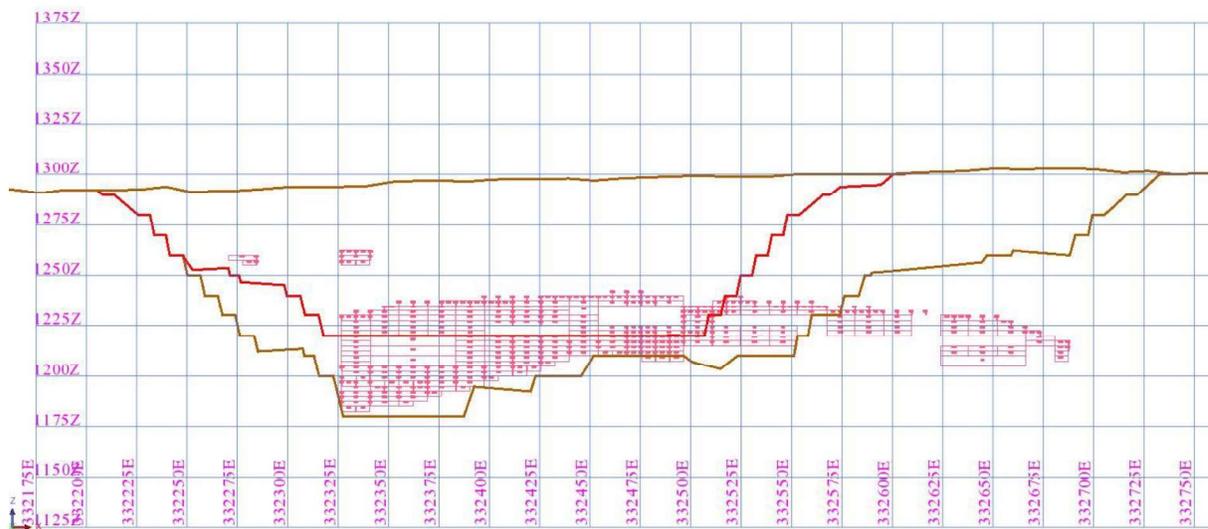


Figure 4: Arcadia Satellite Pit Section 8,035,200N – 2 Pit Design Stages – Li₂O ≥ 1.0%

4 Ore Reserve Estimation Process

The format of the following description of the Ore Reserve estimation process is based on the requirements of ASX Chapter 5, Paragraph 5.9 Requirements applicable to reports of Ore Reserves for material mining projects, sub-paragraph 5.9.1 relating to the components of a market announcement.

4.1 Material Assumptions and Outcomes from the Definitive Feasibility Study and Optimisation Study (including Economic Assumptions)

Appropriate studies for the development of the Arcadia Project have been undertaken by Prospect and a number of suitably qualified independent consultants, experts and contracting firms. All study assumptions are to a minimum of a Prefeasibility Study standard. There was a study completed in November 2018 by Prospect for a 2.4 Mtpa DMS and froth flotation processing facility. This plant size was used as the basis for the Ore Reserve estimate for November 2019. There are two plant staging sizes being used for this Ore Reserve estimate; namely 1.2 Mtpa for the first four years followed by a 2.4 Mtpa rate for the remainder of the mine life.

Roskill has provided a pricing deck to Prospect in June 2021. Roskill has provided annual guidance to Prospect over a 20-year period with averages for a 10-year period (2021–2030) and a 20-year period (2021–2040) on predicted pricing for 6% spodumene concentrate, 4% petalite concentrate (both chemical and technical), and 30% tantalum concentrate. The prices forecast by Roskill and adopted by Prospect are as shown in Table 3. These prices formed the basis for the pit optimisation process which was used in the formation of the pit shells which help guide the pit designs. The currency denomination for this report and for the financial modelling is in US dollars (US\$).

Table 3: Product pricing used for pit optimisations

Product	US\$
Spodumene 6% concentrate (US\$/t concentrate)	736
Petalite 4% concentrate (US\$/t concentrate)	910
Tantalum (US\$/lb)	75

The product pricing has been based on “real” values. The spodumene and petalite concentrate pricing is based on freight on board (FOB) prices from the Port of Beira whilst the tantalum price is based on charges, insurance, freight (CIF) delivered to China.

Geotechnical analysis was completed by South African geotechnical consultant, Practara Limited (Practara) in December 2016. The geotechnical analysis identified the geotechnical domains as being in weathered or fresh rock. The subsequent pit parameters are as depicted in Table 4. The optimisation and pit design for this Ore Reserve estimate is based on this geotechnical assessment. In discussions with Practara, there are some identified data gaps within the main pit and satellite pit, owing to the expansion of the pit design. These are not considered major but will need to be considered and rectified before any future studies are commenced upon at Arcadia.

Table 4: Geotechnical parameters from Practara (December 2016)

Domain	Bench height (m)	Berm width (m)	Batter angle (°)	Overall slope angle, toe to crest (°)	Inter-ramp angle, toe to toe (°)
Weathered	10	5.0	43	35.8	33.0
Fresh	10	5.0	80	51.9	55.9

4.2 Criteria Used for Classification, including Classification of Mineral Resources on which Ore Reserves are Based and Confidence in Modifying Factors

The Ore Reserves have been classified according to the underlying classification of the Mineral Resource and the status of the Modifying Factors. The status of the Modifying Factors is generally considered sufficient to

support the classification of Proved Ore Reserves when based upon Measured Mineral Resources and Probable Ore Reserves when based upon Indicated Mineral Resources.

Analysis of the Arcadia financial model based on the main economic assumptions such as cashflow, net present value and internal rate of return indicate that the Project is robust. Sensitivity analysis showed that Arcadia is most sensitive and at greatest risk to changes impacting on metal prices and metallurgical recovery.

4.3 Mining Method Selected and Other Mining Assumptions, including Mine Recovery Factors and Mining Dilution Factors

Open cut mining using conventional articulated 40-tonne trucks and 80–100-tonne excavators is considered appropriate for the Arcadia Lithium Project, as it occurs relatively close to the surface. The equipment selection is appropriate for the proposed scale and selectivity of this operation, and this size of equipment is readily available within Zimbabwe.

The geotechnical parameters utilised in the pit design are as per the recommendations of Practara. There is minor weathering at the top of the deposit that will be predominantly free dig material. The weathering profile varies between 5 m and 25 m in depth. As noted earlier, there will need to be detailed geotechnical studies, post this round of work, including several drillholes, applied to both the main pit and the satellite pit to provide valuable up-to-date geotechnical information. It is also recommended that an updated hydrological study be applied to Arcadia before any mining operation commences.

Mining dilution of 5% and an overall mining recovery of 95% (ore loss of 5%) have been applied in the optimisation studies and mine scheduling and is considered appropriate for the deposit geometry, drill and blast practices, selected mining method and the chosen mining equipment at Arcadia. An external dilution grade of 0% was assumed outside of the orebody wireframe.

4.4 Processing Method Selected and Other Processing Assumptions, including Recovery Factors Applied and Allowances made for Deleterious Elements

ADP Marine and Modular (ADP Marine) of Cape Town, South Africa supported the current DFS on the lithium processing capital and operating costs for the Project. The DFS has been used to establish capital costs of the Project and the expected process and maintenance operating costs to an accuracy of $\pm 15\%$. The DFS proposed a capacity increase from 1.2 Mtpa to a 2.4 Mtpa run of mine ore with the upgrade to the 2.4 Mtpa rate being implemented for the start of Year 5.

The Arcadia processing facility will be based on usage of conventional beneficiation techniques including DMS to recover petalite, gravity-based processes to recover tantalite, and froth flotation to recover spodumene. DRA Global and ADP Marine have both contributed to the final process design.

Testwork has been carried out on main pegmatite and lower main pegmatite zones during 2019 and 2020, with the data being derived from these programs being directly applied by ADP Marine to the current process design.

The pegmatite ore is hard, brittle and abrasive and a two-stage crushing process with high-pressure grinding rolls (HPGR) has been selected to achieve the -3 mm crush size that is required for the liberation of petalite by the DMS circuit.

The target concentrate grade for petalite is 4% Li_2O (i.e. 82% petalite). Testwork has demonstrated that petalite concentrates that contain less than 0.05% Fe_2O_3 may be produced from the Arcadia deposit and that 80% of all petalite concentrates will meet the required specifications for Technical Grade ultra-low iron product.

The target grade for spodumene is 6% Li_2O (i.e. 75% spodumene). The spodumene grain size is substantially finer than petalite (at the micro level) which limits the recovery of spodumene by DMS. Consequently, all the ore (post gravity recovery) will report to the flotation circuit where spodumene is effectively recovered at a grind size of 0.212 mm P100.

Both concentrates are packed into bulka bags, sealed, and weighed.

Tantalite will be recovered as a rough concentrate by the application of a dedicated spiral circuit placed in the flotation tailings stream. The rough tantalite is then upgraded to a saleable product containing approximately 25% Ta₂O₅ using conventional gravity separation methods and magnetic separation. The tantalite product is then dried and packed into 205-litre steel drums, sealed and weighed ready for transport.

Process tailings will be disposed of to an engineered tailings storage facility (TSF). Process water that is reclaimed from within the process plant will be added to process water returned from the TSF for reuse in the processing facility.

Metallurgical programs at the Arcadia site were supervised by Mike Kitney of Prospect with testwork prior to November 2018 carried out by FT Geolabs of Centurion, South Africa from 2016 and by NAGROM mineral processing laboratories in Perth, Western Australia from 2017. Subsequent metallurgical programs to November 2019 continued through Geolabs of South Africa who worked with DMS specialists PESCO of Pretoria to extend the DMS petalite recovery database for the main petalite ore in particular. Results from these metallurgical programs demonstrate the ability to produce DMS petalite concentrate containing 4% Li₂O and less than 0.05% Fe₂O₃. Ongoing flotation testwork of the main petalite ore also confirmed the ability to produce spodumene flotation concentrate containing 6% Li₂O.

Table 5 shows the plant recoveries developed from the bulk samples and testwork as described above.

Table 5: Predicted plant recoveries based on rock types (June 2021)

Rock type	Petalite (%)	Spodumene (%)	Tantalum (%)
Upper pegmatite	39.74	73.79	27.0
Main pegmatite	39.96	77.55	27.0
Intermediate pegmatite	39.57	67.38	27.0
Lower main pegmatite	29.26	74.40	27.0
Basal pegmatite	28.93	74.65	27.0
Lower basal pegmatite	40.15	79.76	27.0

4.5 Basis of Cut-Off Grade Applied

The lithium and tantalum cut-off grades have been calculated based on a block-by-block analysis. Each block takes into account all processing costs including general and administration charges, metallurgical recovery, and net product prices (including selling costs) for separate spodumene, petalite and tantalum concentrates. When the operating costs (not including the mining costs) are subtracted from the revenue (generated by the product prices), a value is obtained. If the value is positive, that block is defined as “ore” and can therefore be processed economically and become a part of the Ore Reserve estimate. All blocks that have a negative value are classified as waste material.

4.6 Estimation Methodology

Whittle™ pit optimisation software has been used to identify the preferred pit shell on which the pit designs were based for the recovery of Measured and Indicated Mineral Resources.

Inputs used for the optimisation have been based on the November 2018 DFS as well as up-to-date information provided by Prospect. A detailed open pit mine design has been developed from the initial optimised pit shells and these pit designs are then fed into the mining schedule. The mining schedule has several operating constraints that must be abided by and then the bench-by-bench outputs from the mining schedule are fed into the Prospect Financial Model.

4.7 Material Modifying Factors, including Status of Environmental Approvals, Mining Tenements and Approvals, Other Government Factors and Infrastructure Requirements for Selected Mining Method and Transport to Market

The Arcadia Project has had formal EMA approval, which means that Prospect can operate in accordance with part XI of the EMA (Chapter 20:27). The issue date was 18 March 2019.

The Arcadia Lithium Project was granted Mining Lease title number 38 on 16 August 2018. This Mining Lease covers an area of 1,031 hectares, which allows for all mining activities, processing plant infrastructure, TSFs and other offices, workshops and infrastructure in order that mining and processing activities can be carried out. In addition to the granted Mining Lease, there are several additional areas that are known as “Mining Claims”. These Mining Claims allow for the mining footprint to be increased or for waste dump and stockpile storage. The Mining Claims are renewable annually and are as detailed in section 172 of the MMA.

Process water requirements will be split into two separate systems designed to avoid the contamination of DMS process water by flotation reagents present in water recovered from the TSF. Potable water will be supplied from several bore holes that have been tested as potable. The water will be filtered through sand filters and sterilised.

The mine site power will be fed from a dedicated 20 MVA, 33 kV line that comes from the ZETDC Atlanta 132 kV substation which is located 10 km from the mine.

The spodumene and petalite concentrate is shipped via the port of Beira which is located approximately 580 km to the southeast of Arcadia via road. The tantalite concentrate will be exported via the Port of Walvis Bay, Namibia.

The site will have some on-site accommodation, with all other employees being bussed to and from various meeting points around Harare.

5 Ore Reserves

Paragraph 29 of the JORC Code (2012 Edition) specifies:

“An ‘Ore Reserve’ is the economically minable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could be reasonably justified.”

Ore Reserves are subdivided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves, defined by JORC Code (2012 Edition) as:

“A ‘Probable Ore Reserve’ is the economically minable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.”

“A ‘Proved Ore Reserve’ is the economically minable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.”

An Ore Reserve of 42.3 Mt has been estimated as 11.8 Mt Proved and 30.5 Mt Probable Ore Reserves, reported in accordance with the JORC (2012 Edition) and as shown below in Table 6.

Table 6: Ore Reserve estimate (using variable cut-off grades), August 2021

Reserve category	Tonnes (Mt)	Grade Li ₂ O (%)	Contained Li ₂ O (kt)	Grade Ta ₂ O ₅ (ppm)	Contained Ta ₂ O ₅ (Mlb)
Proved	11.8	1.25	148	114	3.0
Probable	30.5	1.17	357	123	8.3
Total	42.3	1.19	504	121	11.3

Notes:

- Allows for mining ore loss of 5% and dilution of 5%.
- The Ore Reserve estimate has been based on a variable, economic block-by-block calculation.
- Figures above may not sum due to rounding.

5.1 Comparison with Previously Announced Ore Reserve Estimates

A previous Ore Reserve statement was issued by CSA Global in November 2019. The results of this estimate are shown in Table 7.

Table 7: Ore Reserve estimate (using variable cut-off grades), November 2019

Reserve category	Tonnes (Mt)	Grade Li ₂ O (%)	Contained Li ₂ O (kt)	Grade Ta ₂ O ₅ (ppm)	Contained Ta ₂ O ₅ (Mlb)
Proved	11.3	1.28	144	114	2.8
Probable	26.1	1.20	314	124	7.2
Total	37.4	1.22	457	121	10.0

Notes:

- Allows for mining ore loss of 5% and mining dilution of 5%.
- The Ore Reserve estimate has been based on a variable, economic block-by-block calculation.
- Figures above may not sum due to rounding.

The main differences between the two Ore Reserve estimates are due to:

- Redesign of the Arcadia pits based on updated optimised pit shells
- Changes in the product prices
- Changes in the plant recoveries
- Production of a higher value petalite product for the glass/ceramics industry

- Rescheduling and updated financial model with recent mining and processing costs.

5.2 Competent Person

The information in this section that relates to Ore Reserves is based on information compiled and reviewed by Mr Paul O'Callaghan, a full-time employee of CSA Global. Mr O'Callaghan takes overall responsibility for the report as Competent Person. Mr O'Callaghan is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Paul O'Callaghan has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

6 Ore Reserve Estimation

The Ore Reserve estimates are based on the results of investigations and studies completed for the Arcadia Lithium Project as advised in various documentation from Prospect.

Section 4 of the JORC Table 1 in Appendix C discusses the relevant Modifying Factors in accordance with the requirements of the JORC Code.

7 Abbreviations and Units of Measurement

°	degrees
ADP Marine	ADP Marine and Modular
CIF	charges, insurance, freight
CSA Global	CSA Global Pty Ltd
DFS	definitive feasibility study
DMS	dense media separation
EIA	environmental impact assessment
EMA	Environmental Management Act
Fe ₂ O ₃	iron(III) oxide (or ferric oxide)
FOB	freight on board
HPGR	high-pressure grinding rolls
km	kilometres
kt	thousand tonnes (or kilo-tonnes)
kV	kilovolts
lb	pound(s)
Li ₂ O	lithium oxide (or lithia)
m	metre
Mlb	million pound(s)
mm	millimetres
MMA	Mines and Minerals Act
Mt	million tonnes
Mtpa	million tonnes per annum
MVA	megavolt amperes
ppm	parts per million
Practara	Practara Limited
Prospect	Prospect Resources Limited
PZL	Prospect Zimbabwe Limited
SACNASP	South African Council for Natural Scientific Professions
t	tonne(s)
Ta ₂ O ₅	tantalum pentoxide
TFS	tailings storage facility
US\$	United States of America dollar(s)

8 Competent Person's Consent Form – Paul O'Callaghan

Pursuant to the requirements of ASX Listing Rule 5.6, 5.22 and 5.24 and Clause 9 of the 2012 JORC Code (Written Consent Statement)

Report Description

Report: R318.2021
Company: Prospect Resources Limited
Project: Arcadia Lithium Project
Date of Report: 8 September 2021

Statement:

I, Paul Matthew O'Callaghan, confirm that

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the 2012 JORC Code, having five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for I am accepting responsibility.
- I am a Fellow of the Australasian Institute of Mining and Metallurgy.
- I have reviewed the Report to which this Consent Statement applies.
- I am a full-time employee of CSA Global Pty Ltd.
- I verify that the Report is based on and fairly reflects in the form and context in which it appears, the information in my supporting documentation relating to Ore Reserves.

I consent to the release of the Report and this Consent Statement by the Directors of Prospect Resources Limited.

SIGNATURE


Electronic signature not for duplication. Electronic signature not for duplication. Electronic signature not for duplication. Electronic signature not for duplication.

Signature of Competent Person

Date: 08/09/2021

FAusIMM

Professional Membership

Membership Number: 211153

There are no Additional Deposits or Reports for which the Competent Person, Paul O'Callaghan signing this form is accepting responsibility for.

Appendix A JORC Table 1, Sections 1 and 2

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>At the Arcadia Lithium Project, majority of samples were percussion chips generated from a Smith Capital or Thor rig, using a double tube reverse circulation (RC) technique. Samples were collected from the cyclone and riffle split on site before bagging.</p> <p>Three 3 kg samples were collected every metre in triplicate, one of which was sent for pulverising and assaying, in addition to a smaller sample retained for reference and logging.</p> <p>For the diamond drill samples, core was marked up on site, and halved with a diamond saw, in a facility close to site. Half of the core (normally left side) was retained for reference purposes.</p> <p>Certified reference materials (CRMs) produced by AMIS of Johannesburg, blanks and field duplicates were inserted into each sample batch. (5% of total being CRMs, 5% blanks, 5% field duplicates and 5% laboratory duplicates). This was done by Zimlabs who undertook the sample preparation, as well as blank and CRM insertion, under instruction from Prospect Resources Limited (Prospect).</p> <p>The AMIS CRMs used were: AMIS0338 0.1682% Li; AMIS0339 2.15% Li; AMIS0340 1.43% Li; AMIS0341 0.4733% Li; AMIS0342 0.1612% Li; AMIS0343 0.7016% Li; and AMIS0355 0.7696% Li.</p> <p>All samples were taken in Company transport to Zimlabs laboratory in Harare, where they were pulverised to produce a 30 g charge and then dispatched by courier to ALS Johannesburg. All samples were analysed by multi-element inductively coupled plasma (ICP) (ME-MS61, following four acid-dissolution. Over-limits on lithium analysed by LiOG63 method (four-acid digestion with ICP or atomic absorption spectrometry (AAS) finish). All the pulps from holes drilled within the planned new pit area have subsequently been re-submitted for x-ray diffraction (XRD) analysis at either ALS, SGS or FT Geolabs. XRD results from 10 batches (796 samples) are available. All the pulps from holes drilled within the planned new pit area have subsequently been resubmitted for XRD analysis at either ALS, SGS or FT Geolabs. XRD results from 28 batches (2.642 samples) are available.</p>
Drilling techniques	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>Double tube, 5” RC. For Phases 2–4, two RC rigs were used. A trailer-mounted Smith Capital double-tube RC rig was used with a 25 bar (Ingersoll Rand) 2013 compressor. In addition, a Thor truck mounted rig was used, with a 50 bar Atlas Copco compressor. For Phase 5, a Super Rock 5000 was used.</p> <p>3 m rods were used, and the hole air blasted to allow sample recovery via a cyclone every 1 m. A total of 194 RC holes (15,546 m), plus nine pre-collars (1,490 m) were drilled, and 9,494 m from 108 RC holes were used in this estimate.</p> <p>For diamond core drilling, two Atlas Copco CS 14 rigs were used. HQ core was drilled through the first 20–30 m of broken ground. This section was then cased, and drilling proceeded with NQ sized core. A total of 111 DD holes (9,646 m) were drilled, with 74 DD holes (8,401 m) were used in the Mineral Resource estimate (MRE). In addition, 11 holes were pre-collared by RC,</p>

Criteria	JORC Code explanation	Commentary
		<p>with four of these being subsequently being tailed with core (1,490 m) Four of these (556 m) were used in the estimate.</p> <p>25 dedicated metallurgical holes (HQ) were drilled (ACD017, ACD018, ACD022, ACD031, ACD041, ACD045–ACD048, ACD05, ACD055, ACD066, ACD068–ACD071, and ACD073–ACD081) totalling 1,985 m. In addition, 30 extra dedicated PQ diameter holes were drilled in the final Phase 7 drilling (holes ACD082–ACD111).</p> <p>In total, approximately 8.4 tonnes of drill core have been seen for metallurgical testwork representing around 1,099 m of pegmatite intercepts.</p>
<p>Drill sample recovery</p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>RC chip samples were bagged directly from the cyclone, and immediately weighed; virtually all samples weighed more than 30 kg, averaging 35 kg. A calculated recovery of around of 85% was achieved.</p> <p>The sample was then riffle split to produce three subsamples (a primary, field duplicate and reference sample) of approximately 3 kg each.</p> <p>Material seems largely homogenous, and no relationship has been detected between grain size and assayed grade. Results from the 41 lab duplicates generated from the milled core, in the Phase 3 samples show a correlation of over 99%, and an under read, bias of less than 10%, which is not considered material.</p> <p>The average core loss across the unweathered portions of the phase 3 DD holes is 3.7%. Vast majority of this loss occurring in the first 20 m of weathered ground. The core loss through the pegmatites is less than 2%. For the Phase 3 DD holes, the core loss through the un-weathered portions is 1.3%.</p> <p>The overall average lithium grade of the 2,093 RC chip samples is 0.30% vs 0.31% for the 1,781 DD samples. As there is only a partial overlap in the RC and DD drilling “grids”, it is not possible at this stage to make a definitive statistical comparison, to determine if this is geological in origin or as a result of the drilling method.</p> <p>RC hole ACR167 was drilled as a twin of DD hole; ACD050. In comparison:</p> <ul style="list-style-type: none"> • ACR167: Mean grade 1.51% Li₂O, Main Pegmatite 1.58% over 5 m. Lower Main Pegmatite 1.73% over 10 m. • ACD050: Mean grade 1.47% Li₂O, Main Pegmatite 1.46% over 4.4 m. Lower Main Pegmatite 1.65% over 12 m.
<p>Logging</p>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>A sample of the RC chips was washed and retained in a chip tray. Chip samples have been geologically logged at 1 m intervals, with data recorded in spreadsheet format using standardised codes. Sample weight, moisture content, lithologies, texture, structure, induration, alteration, oxidation and mineralisation were recorded.</p> <p>Specific gravities (SGs) were measured at Zimlabs using the Archimedes method and at SGS laboratories in Harare, using a pycnometer.</p> <p>All drill core has been lithologically logged and had first pass batch geotech logging done (rock quality designation – RQD) on site. At a nearby Company facility, detailed structural logging and field SG measurements were made, using the Archimedes (displacement in water) method. The SG determinations were made on a representative material of waste and mineralised pegmatites from every metre in each borehole.</p>

Criteria	JORC Code explanation	Commentary
		<p>The work is undertaken according to Prospect’s standard procedures and practices, which are in line with international best practice, and overseen by the Competent Person. The Competent Person considers that the level of detail and quality of the work is appropriate to support the current Mineral Resource estimation.</p>
<p>Subsampling techniques and sample preparation</p>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>RC samples were bagged straight from the cyclone. An average of 35 kg of sample was produced per metre.</p> <p>The dry samples were split using a three-stage riffle splitter, with three, 3 kg samples being collected per 1 m interval. Excess material was dumped in a landfill.</p> <p>For RC chip samples, field duplicates were produced every 20th sample.</p> <p>The 3 kg samples were crushed and milled (90%, pass -75µm) at the Zimlabs Laboratory. Pulp duplicates, blanks and standard material (produced by AMIS) were inserted in identical packets to the samples, one per 20 normal samples for each of the blanks, standards and lab duplicates. This was done under the supervision of a qualified geologist or experienced geotechnician from Prospect.</p> <p>DD core was split in half with a diamond saw. Half was sampled for assay, respecting lithological boundaries up to a maximum sample length of a metre. The other half of core (normally left side) was retained for reference purposes.</p>
<p>Quality of assay data and laboratory tests</p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p>All samples were analysed by multi-element ICP (ME-MS61). Over-limits (> on lithium analysed by LiOG63 method, after four acid dissolution. All assays were performed at ALS Vancouver.</p> <p>For quality assurance/quality control (QAQC), a 10% tolerance on CRM and duplicate results was permitted. Of the 41 Phase 1 and 2 blank samples inserted, only one was deemed necessary for re-assay. Of the 53 CRMs assayed, only three fell outside the acceptable range and sent for re-assay.</p> <p>Out of 55 pulps produced from field duplicates, 15 fell outside acceptable limits. An investigation identified that the issue was Zimlabs duplicating the wrong sample. One of their staff had become use to duplicating the preceding sample, irrespective of what was requested by Prospect staff.</p> <p>The affected samples were re-assayed and subsequent results reported were considered acceptable. Following the discovery of this issue with Zimlabs, a Prospect technician now follows each batch through the lab and supervises insertion of standards.</p> <p>For the Phase 3 results all assayed at ALS, there were very few issues. Of 84 CRMs submitted with the DD samples, all returned values within acceptable limits for lithium. As per previous releases, the five samples of AMIS340, again under-read on tantalum. This issue can be confidently linked to the dissolution methods used by both ALS (and Genalysis on their check samples) being unsuitable for total extraction of sample type.</p> <p>For the Phase 4 results, the 49 blank samples all returned acceptable results. Of the 44 CRMs, five of the samples, has variations from the theoretical values of between 10% and 15%, but these were not considered significant. All the 30 laboratory duplicates returned acceptable results. Of the 44 field duplicates, eight of the samples returned a variation of greater than 10%, but five of the samples were very low grade and therefore not considered significant. Three of the samples failed again on re-assaying, and it was determined that this was likely due to the wrong samples being duplicated in the field.</p>

Criteria	JORC Code explanation	Commentary
		<p>For the Phase 5 results received to date, the five blanks, five CRMs and five lab duplicates all returned results within acceptable limits. A mixing of one field duplicate sample has evidently been made, and this is being re-assayed.</p> <p>The conclusion is that ALS accuracy is considered good and, Zimlabs sample preparation procedures were acceptable.</p> <p>Three batches of round robin checks (124 samples) have been undertaken at Zimlabs in Harare, (which have returned an 85% correlation). Additional check samples were analysed for lithium and tantalum, satisfactorily at Genalysis-Intertek in Perth, Australia as round robin checks.</p>
<p>Verification of sampling and assaying</p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Prospect's Chief Geologist was on site during most of the drilling and sample pre-preparation. The significant intersections and geological were also shown to Zimbabwe Geological Survey staff and checked by an MSA Geologist Competent Person, Michael Cronwright.</p> <p>All hard copies of data are retained at the Prospect Exploration offices. All electronic data resides in Microsoft Excel format on the office desktop, with back-ups retained on hard drives in a safe, and in a Microsoft Access database in a data cloud offsite.</p> <p>Four holes from the current campaign were designed to twin historically drilled Rand Mines' holes from the 1970s and 1980s. JORC compliant detailed assays are not available, but cross-sections indicate a good correlation with Prospect's interpretation of the Main Pegmatites geometry.</p> <p>In addition, RC hole ACR167 was drilled as a twin of DD hole; ACD050. In comparison:</p> <ul style="list-style-type: none"> • ACR167: Mean grade 1.51% Li₂O, Main Pegmatite 1.58% over 5 m. Lower Main Pegmatite 1.73% over 10 m. • ACD050: Mean grade 1.47% Li₂O, Main Pegmatite 1.46% over 4.4 m. Lower Main Pegmatite 1.65% over 12 m. <p>Logging and assay data captured electronically on Microsoft Excel spreadsheet, and subsequently imported into a Microsoft Access database.</p> <p>All assay results reported as Li ppm and over limits (>5,000 ppm) as %, adjusted to the same units and expressed as Li₂O %.</p> <p>Similarly, Ta assays are reported in ppm, but expressed as Ta₂O₅. Fe₂O₃ assays were reported in %.</p>
<p>Location of data points</p>	<p><i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All drillholes were surveyed completed with downhole survey tool using an Azimuth Point System (APS) Single Shot survey method downhole instrument at a minimum of every 30 m and measured relative to magnetic North. These measurements have been converted from magnetic to Arc1950 UTM Zone 36 South values. No significant hole deviation is evident in plan or section.</p> <p>All collar positions have been surveyed using a High Target differential global positioning system (GPS) from Fundira Surveys. The topography in the greater project area was surveyed to 30 cm accuracy using a Leica 1600 differential GPS. Permanent survey reference beacons have been erected on site.</p> <p>All surveys were done in the WGS84 datum on grid UTM 36S, and subsequently converted to ARC1950 datum.</p>

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Phase 1–5 drillholes were drilled at an average of 75 m intervals along strike and down dip of the pegmatites. This was sufficient to establish confidence in geological and grade continuity and appropriate for the Mineral Resource classification applied.</p> <p>The approximate grid for along strike and down dip drilling was extended to approaching 100 m for the subsequent drilling phases.</p> <p>Phase 6 was a short RC program which targeted a satellite orebody, that is not part of this resource.</p> <p>Phase 7 was drilled as infills within the existing grid on Arcadia to produce more Main Pegmatite intercepts for wrapping up the metallurgical test work. The grid is now less than 30 m in these areas.</p>
Orientation of data in relation to geological structure	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>Mineralised structures are shallow dipping (10° northwest) pegmatites hosted within meta-basalts and drilling was planned to intersect these structures perpendicularly (drilled at -80 to the southeast).</p> <p>Though the target pegmatites can show considerable mineralogical and to a lesser extent grade variation, the geology is relatively simple.</p>
Sample security	<p><i>The measures taken to ensure sample security.</i></p>	<p>RC and core samples were placed in sealed bags to prevent movement and mixing. Minimal preparation was done on site. Samples were transported in company vehicles accompanied by a senior technician to the pre-preparation laboratory (Zimlabs).</p>
Audits or reviews	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>The Resource Competent Person (Ms Gayle Hanssen of Digital Mining Services) is continually auditing sampling and logging practices.</p>

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<p><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></p>	<p>An approximately 10 km² (1,038 hectares) Mining Lease, number 38 was issued on 16 August 2018 to Prospect Lithium Zimbabwe (formerly Examix Investments (Pvt)). This encompasses the entire mineral resource.</p> <p>No environmental or land title issues or impediments.</p> <p>Environmental Impact Assessment (EIA) certificate of approval granted by the Environmental Management Agency, to cover all the company's exploration activities.</p> <p>Rural farmland – fallow, effectively defunct commercial farm.</p>
Exploration done by other parties	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Two rounds of historical drilling were done. Three EXT holes were drilled in 1969 with support from the Geological Survey of Zimbabwe, at the site of the historical pit. These logs are available, and the lithologies observed are consistent with that seen by Prospect's drilling.</p> <p>The sites of at least 10 previously drilled NQ sized boreholes have also been identified in the field. Much detailed records of this program have been lost. But the work done is mentioned in the Geological Survey in the 1989 Harare bulletin no. 94 where a non-JORC compliant estimate of 18 Mt is recorded.</p>

Criteria	JORC Code explanation	Commentary
		<p>Recent investigations have revealed that this was actually two campaigns of drilling. The first in 1974, consisted of six diamond drillholes and a limited number of percussion holes by local company, Rhodex.</p> <p>The second round was undertaken in 1981 by Rand Mines' local subsidiary, Central African Minerals. A total of 813.77 m was drilled in eight diamond drillholes. Six of the old bore hole collars have been identified, one with a hole number AC#4, and depth 47 m (this was twinned by PR hole ACD001). It is apparent that though Rand Mines intersected the Lower Main Pegmatite in one of the holes; it was not aware that the orebody thickened significantly to the north.</p> <p>A weighted average grade of 1.47 % Li₂O over 26 m was recorded from the eight holes. Though non-JORC compliant, the order of magnitude of the results are consistent with Prospect's work.</p>
Geology	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The deposit comprises a number of pegmatites hosted in meta-basalts of the Arcturus Formation within the Harare Greenstone Belt.</p> <p>The pegmatites belong to the Petalite subclass of the Rare-Element pegmatite deposit class and belong to the lithium-caesium-tantalum (LCT) pegmatite family.</p> <p>The pegmatites are poorly to moderately zoned (but not symmetrically or asymmetrically zoned and have no quartz core). The main lithium bearing minerals are dominantly petalite and spodumene, with subordinate eucryptite, bikitaite, and minor lepidolite. In addition, disseminated tantalite is present. Gangue minerals are quartz, alkali feldspars and muscovite.</p> <p>The pegmatites strike 045° and dip at 10° to the northwest.</p>
Drillhole information	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i></p> <ul style="list-style-type: none"> • <i>easting and northing of the drillhole collar</i> • <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</i> • <i>dip and azimuth of the hole</i> • <i>downhole length and interception depth</i> • <i>hole length.</i> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>See Appendix C.</p>
Data aggregation methods	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p>	<p>Borehole intersections were reported using downhole length weighted averaging methods. No maximum or minimum grade truncations were used. The mineralisation is constrained to within the pegmatites.</p> <p>For this MRE, two estimates were made, one using a cut-off grade of the statistically determined 0.2% Li₂O, and a second using a more realistic mining cut-off of 1% Li₂O.</p>

Criteria	JORC Code explanation	Commentary
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</i></p>	<p>All drillholes were drilled with an azimuth of 135°. The dip of all the holes is -80°, planned to intersect the pegmatites perpendicularly.</p> <p>Virtually all holes intersected the pegmatites as planned, though the pegmatites do bifurcate and vary in thickness. There are remarkably little structural complications in the area. A series of northeast-southwest striking faults cut the orebody, but with little apparent displacement.</p> <p>The north-northeast trending Mashonganyika fault zone which forms the river valley to the east of the current planned pit, has resulted in blocks of Main Pegmatite being down faulted and preserved from erosion. Detailed analysis of the multi-element geochemistry is underway, but it appears that this fault zone has accentuated surficial geochemical leaching of certain of the elements; including lithium.</p>
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i>	Maps and cross sections are attached in the body of the report.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Prospect states that all results have been reported and comply with balanced reporting.
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>Channel sampling also carried out at the adjacent dormant pit, previously mined in the 1970s. Continuous 1 m samples were channel sampled and hand sampled along cut lines, every 2 m on the pit face. Approximately 3 kg samples were collected, and assayed at ALS after crushing and milling at Zimlabs. Assays were incorporated into the MRE.</p> <p>Geological mapping was undertaken down-dip and along strike of the pit and has been incorporated into the current MRE.</p> <p>Soil sampling orientation lines have produced lithium geochemical anomalies that coincide with sub-outcropping projections of the pegmatites.</p>
Further work	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	A potential Phase 8 drilling that would involve drilling 14 m x 140 m holes on the western edge of the planned Main Pit is being considered; this would be to upgrade all the Basal and Lower Basal Pegmatite to at least an Indicated Mineral Resource category.

Appendix B JORC Table 1, Section 3

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	<p><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></p> <p><i>Data validation procedures used.</i></p>	<p>All data is stored in Microsoft Excel spreadsheets, which are checked by the Project Geologist prior to import into a Microsoft Access database.</p> <p>Columns in the spreadsheet have been inserted to calculate the sample lengths and compare them to that recorded by the samplers.</p> <p>The spreadsheets are set up to allow only standardised logging codes. Checks are also done during data capture and prior to import to ensure there are no interval or sample overlaps, duplication of data or samples.</p>
Site visits	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The project has regularly been visited by Prospect's Chief Geologist and Competent Person. In addition, Mr Michael Cronwright of The MSA Group, a pegmatite specialist and Competent Person has undertaken a number of site visits to advise on pegmatite zonation and mineralogy and observe sampling practices.</p>
Geological interpretation	<p><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>The geology of the deposit is relatively simple, a number of shallow dipping (10° to the northwest) pegmatites hosted in meta-basalt. The deposit is crosscut by southwest-northeast and north-northwest to south-southeast trending faults. The latter set is thought to have controlled initial emplacement of the pegmatites, but there is little discernible displacement of the pegmatites along them.</p> <p>Estimations have been done separately on each of the major three pegmatites bodies; the Main Pegmatite, the Intermediate Pegmatite, the Lower Main Pegmatite, and the Basal Pegmatite.</p> <p>Lithium is a highly mobile element, and weathering has affected and leached the grade down to 20–30 m depth. Separate estimations have been made on the weathered and unweathered zones.</p>
Dimensions	<p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>The block model encompasses 2.6 km of the 3.5 km of southwest-northeast strike, by 900 m down dip, and to a depth of 130 m. The geological model is 300 m thick, which represents a depth greater than the combined maximum topographic height, plus maximum depth drilled.</p>
Estimation and modelling techniques	<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p>	<p>The initial geological models were constructed in Leapfrog software based on hand drawn sections compiled by the Project and Chief Geologists. The block model was constructed by Digital Mining Services in Surpac software. No top cut was applied, as there were no statistical outliers. Based on frequency distribution analysis, however, a bottom cut-off of 0.2% Li₂O was used. In addition, a higher-grade resource was defined, using a cut-off of 0.8% Li₂O. Ordinary kriging was employed. A spherical model was used, with search parameters set to follow the southwest-northeast strike and northwest dip of the pegmatites.</p> <p>Estimations were also made on tantalum, the primary by-product and niobium, which is intimately (mineralogically) associated with it, and also rubidium. The latter has a very high background level and is considered to be associated with the K-feldspar, but unlikely to form economic mineralisation.</p> <p>Deleterious elements, such as cadmium, iron and uranium are at acceptable to low levels.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p>	<p>Initial block size was set at 40 m x 40 m x 5 m (standard Zimbabwean Bench height). Sub-blocking done at 10 m x 10 m x 2.5 m.</p> <p>Statistical analysis suggests a strong correlation between caesium and rubidium, and tantalum, niobium and beryllium, but a weak negative one of the lithium to almost all other elements.</p> <p>No outlier high values to warrant top cut-off. Statistical analysis suggested a 0.2% Li₂O lower cut-off.</p> <p>Sections were sliced through the body at 100 m intervals and bore hole intercept grades visually compared against the estimated block grades.</p>
Moisture	<p><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></p>	<p>Estimated on a dry basis.</p>
Cut-off parameters	<p><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></p>	<p>Commodity is an industrial mineral. Key value drivers are lithium (or Li₂O) grade and mineralogy. Lower cut-off of 0.2% Li₂O determined statistically.</p> <p>Metallurgical and mineralogical testwork has been completed and is ongoing.</p>
Mining factors or assumptions	<p><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<p>5 m block height size used to confirm with standard Zimbabwean bench height. Open cast mining is planned in the eastern part of the orebody to exploit the Basal, Lower Main, Intermediate, Main and Upper Pegmatites.</p> <p>A stripping ratio of less than 2.79 : 1 to 130 m depth has been determined.</p> <p>Although numerous thin pegmatite bands (14 in all) exist; practical minimum size of 2 m is deemed possible to economically mine (equates to average bucket width of an excavator). Bands thinner than this will dictate the necessity of establishing low-grade stockpiles, which may be economic to process once mine and floatation plant and gravity circuits are running successfully. The current estimate was made on the four thickest bands; the Upper Pegmatite, Main Pegmatite, the Middle Pegmatite Lower Main Pegmatite, Basal and Lower Basal Pegmatites.</p>
Metallurgical factors or assumptions	<p><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>Detailed XRD and petrographic investigations have been completed on a range of samples from across and at depth from the Arcadia deposit. The results indicate the mineralogy of the lithium mineralisation is coarse grained petalite and fine-grained spodumene, both of which are amenable to conventional recovery methods for the production of a potentially saleable lithium concentrate. Initial heavy liquid separation results in petalite reporting largely to the floats and spodumene to the sinks. The two may be separated after primary fine crushing by dense medium separation (DMS) and after successive fine grinding, by floatation. Petalite is coarse grained, primarily reporting to gravity concentrates. The finer spodumene responds very well to conventional fatty acid floatation.</p>

Criteria	JORC Code explanation	Commentary
		<p>FT Geolabs (South Africa) and NAGROM (Australia) have reported on extensive testing, which has produced very favourable results (ACD017, ACD018, ACD022, ACD031, ACD033, ACD041, ACD045, ACD046, ACD048, ACD049, ACD051, ACD055, ACD066, ACD068–ACD071 and ACD073–ACD081). Testing Lower Main Pegmatite ore produced spodumene concentrate grade of >5% lithium oxide (Li₂O) and petalite concentrate at >4% Li₂O from dense medium separation tests with a lithium recovery of 6% as petalite in gravity concentrates. Spodumene, reporting to DMS sinks graded ~5% Li₂O at a lithium recovery of ~8%. Lithium recovery of ~44% to spodumene flotation concentrate grading >6% Li₂O was achieved. These results reflect near total recovery of spodumene and significant initial recovery of petalite minerals. Work to maximise petalite recovery employing spirals and flotation is continuing. Further bulk testing of Upper Pegmatite ore supports the selection of DMS for coarse petalite recovery, and specialist flotation testing has indicated additional petalite may be recoverable while achieving specification grade.</p> <p>The following products have been produced:</p> <ul style="list-style-type: none"> • Spodumene concentrate @ 6.5% Li₂O and 0.33% Fe₂O₃ • Spodumene concentrate @ 6.1% Li₂O and 0.52% Fe₂O₃ • Petalite concentrate @ 4.2 % Li₂O and 0.08 % Fe₂O₃. <p>Battery grade lithium carbonate has been produced from the laboratory and pilot test facility established in KweKwe, Zimbabwe. Excellent quality product significantly above battery grade specification been produced at lithium carbonate analyses >99.5%.</p>
Environmental factors or assumptions	<p><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<p>An EIA certificate has been issued by the Environmental Management Agency of Zimbabwe for both the exploration and the mining phases. Sterilisation drilling was successfully done at the planned plant site located away from any perennial water courses. There are no centres of dense human habitation.</p>
Bulk density	<p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<p>Specific gravities for all RC and DD core samples have been measured, in both weathered and unweathered zones. The pegmatites are competent units with no voids, and the specific gravities measured are considered to be a good estimate of future mined bulk densities.</p> <p>In core, the Archimedes technique has been used by the company. For the RC chips, a pycnometer was used by SGS Harare, and the Archimedes technique by Zimlabs. The results from the DD have proved to be more statistically robust, and only in areas where there is no DD coverage, have the SG measurements from the RC been used.</p>



Criteria	JORC Code explanation	Commentary
Classification	<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The deposits show reasonable continuity in geology and grade. The basis of resource classification is therefore largely based in drillhole density. Measured Resources at 50 m spacing, Indicated Resources up to 100 m and Inferred Resources >100 m.</p> <p>Prospect believes that all relevant factors have been taken into account.</p> <p>The Competent Person, Chief Geologist and Project Geologist agree that the MRE is a fair and realistic model of the deposit.</p>
Audits or reviews	<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>The MRE was reviewed by amongst others Entech Mining of Perth, BGRIMM of Beijing, and Lionhead of Johannesburg.</p>
Discussion of relative accuracy/confidence	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The individual pegmatite bodies are geologically consistent, and it is deemed that the estimates are valid for such deposits over significant distances.</p> <p>The statement refers to the four main pegmatite bodies; the Upper Pegmatite, the Main Pegmatite, the Intermediate Pegmatite, the Lower Main Pegmatite, Basal and Lower Basal Pegmatites.</p>

Appendix C JORC Table 1, Section 4

Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<p><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></p> <p><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<p>The Ore Reserve estimate is based on the MRE released on 25 October 2017 by Prospect and prepared by Ms Gayle Hanssen as the Competent Person. The MREs were reported using both a 0.2% and a 1.0% Li₂O cut-off.</p> <p>The MRE was reported as:</p> <ul style="list-style-type: none"> 72.7 Mt grading 1.06% Li₂O (770,200 t contained Li₂O) 61.4 Mt grading 1.08% Li₂O (Measured and Indicated Resources). <p>This includes a higher-grade zone (using a 1% Li₂O cut-off) of 41.2 Mt at 1.39% Li₂O and 36.0 Mt at 1.39% Li₂O (Measured and Indicated Resources).</p> <p>The Mineral Resource is reported as inclusive of the Ore Reserve.</p>
Site visits	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The Competent Person, Paul O’Callaghan (Principal Consultant with CSA Global Pty Ltd) has not visited site. Michael Cronwright (a Principal Consultant employed by CSA Global), has visited the Arcadia site on three occasions during 2016 and the Competent Person is confident that the requirements of a site visit have been sufficiently fulfilled. There has been no mining or major construction activity on the site since these site visits. The visits comprised inspecting the existing old Beryl pit, the area of the planned Arcadia Main and the Satellite Pit and the diamond drill core farm.</p>
Study status	<p><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></p> <p><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<p>Prospect completed the Arcadia Lithium Project to a Definitive Feasibility Study (DFS) level as announced to the ASX market in November 2018.</p> <p>The work undertaken in this updated DFS has addressed all material modifying factors required for the conversion of Mineral Resources to Ore Reserves and has shown that the mine plan is technically achievable and economically viable.</p> <p>This Ore Reserve estimate applies all material modifying factors such as mining dilution, mining recovery, infrastructure, costs, legal, environmental, social and regulatory, in line with the updated DFS.</p> <p>Subsequent to the completion of the DFS, a Value Engineering exercise has been completed. A key initiative relating to plant optimisation is to implement a high-pressure grinding rolls (HPGR) system into the process design that is expected to deliver material reductions to the Project’s capital expenditure and operating costs, whilst maintaining or improving metallurgical recoveries.</p>
Cut-off parameters	<p><i>The basis of the cut-off grade(s) or quality parameters applied.</i></p>	<p>A variable economic cut-off grade has been used for this Ore Reserve estimation. The cut-off grade has been based on a block-by-block analysis whereby if the revenue obtained from the three saleable products exceeds the operating costs in processing, general and administration, transporting and selling that product, then that block becomes a part of the Ore Reserve. All other blocks within the pit design that do not satisfy these criteria are nominated as waste material.</p> <p>The revenues were based around a spodumene price of US\$736/t of 6% concentrate, a petalite price of US\$910/t of 4% concentrate and a tantalum price of US\$75/lb.</p>

Criteria	JORC Code explanation	Commentary
<p>Mining factors or assumptions</p>	<p><i>The method and assumptions used as reported in the Prefeasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i></p> <p><i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></p> <p><i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></p> <p><i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></p> <p><i>The mining dilution factors used.</i></p> <p><i>The mining recovery factors used.</i></p> <p><i>Any minimum mining widths used.</i></p> <p><i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></p> <p><i>The infrastructure requirements of the selected mining methods.</i></p>	<p>In order to develop the mine plan for the Arcadia deposit, optimised pit shells and pit designs were prepared using the Geovia software products Whittle and Surpac.</p> <p>Input parameters for the pit optimisation were based on provided data from Prospect. The product prices were reviewed by CSA Global Pty Ltd and are considered appropriate for the lithium market into the future. The operating costs have been based on a mixture of contractor quotations and first-principle estimates, all to a minimum of a Prefeasibility Study (PFS) standard.</p> <p>The mining method is based on a four-staged Main pit and a two-staged separate Satellite pit using conventional open cut drill and blast and load and haul mining methods.</p> <p>Pit slope parameters were made in accordance with the calculations provided by geotechnical engineers Practara Limited (Practara).</p> <p>The overall slope angles are planned to be 52° in fresh material with a batter angle of 80° and berm widths of 5 m. In weathered material, the overall slope angle will be 36° based on batter angles of 43° and berm widths of 5 m.</p> <p>10 m high benches are planned with the removal of four 2.5 m high mining flitches, with a final berm width of 5 m.</p> <p>Modifying factors include mining dilution at 5% and total ore losses at 5% (mining recovery of 95%). The grade of the diluting material added to the ore stream is taken to have an average value of 0% Li₂O. These values are considered suitable for the deposit geometry, mining method and the size of proposed mining equipment.</p> <p>Inferred Mineral Resources have not been included in the pit optimisations due to JORC Code (2012) requirements.</p> <p>Mining infrastructure includes run of mine pad, tailings pad, overburden and waste rock, stockpiles, haul roads, workshops, and offices. The establishment of this infrastructure is included in the capital cost estimates for the project.</p>
<p>Metallurgical factors or assumptions</p>	<p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p> <p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>From October 2016 until July 2019, Prospect directed a detailed metallurgical testing program using half and whole HQ core from 19 dedicated diamond holes placed along and across the deposit and 2 x 10-tonne bulk samples of material extracted from the historical open pit.</p> <p>The testwork was undertaken by FTGeolabs (heavy liquids separation and flotation) in Centurion South Africa, PESCO (DMS) in South Africa, LDE (magnetic separation) in South Africa, NAGROM (heavy liquids separation, DMS, magnetic separation and flotation) in Perth, and Dorfner-Anzaplan (flotation) in Germany. Work done included:</p> <ul style="list-style-type: none"> • Mineralogical analysis using XRD • Heavy liquids separation testing to demonstrate whether Arcadia ore is amenable to concentration of spodumene and petalite using DMS • Further grindability testing • Batch and locked cycle flotation testing for the recovery of spodumene and petalite. <p>Detailed XRD and petrological thin section investigations have been carried out. The results indicate the mineralogy of the lithium mineralisation is coarse-grained petalite and fine-grained spodumene, both of which are amenable to conventional recovery methods for the production of potentially saleable lithium concentrates.</p>

Criteria	JORC Code explanation	Commentary
		<p>The liberation characteristics of the coarse-grained petalite render it suitable for concentration by dense medium separation in which petalite reports to the floats fraction as a low-iron 4% Li₂O concentrate. The finer-grained spodumene reports to DMS rejects and is subsequently milled to produce feed for froth flotation separation in which a concentrate containing 6% Li₂O is produced.</p> <p>Based on the results of these studies, Prospect has designed a concentrator plant to process 2.4 Mtpa of ore feed (commencing at 1.2 Mtpa for the first four years) using conventional DMS for petalite recovery and froth flotation technology for spodumene recovery suitable for a pegmatite orebody. The processing plant comprises key areas including two-stage crushing, HPGR grinding, dense media separation, mica-flotation, spodumene flotation, magnetic separation, concentrate dewatering and drying, and tailings filtering. The plant will produce 6% Li₂O spodumene concentrate and 4% Li₂O petalite concentrate suitable for lithium chemical conversion plants that supply feedstock to the lithium battery manufacturers as well as the glass/ceramics markets respectively.</p> <p>There are allowances made for the tantalite concentrate which needs to be shipped from the Port of Walvis Bay in Namibia. The reason is due to the tantalite product containing radionuclides in excess of 0.1%, so it must be stored, handled and shipped as a Class 7 dangerous good.</p> <p>Further metallurgical optimisation and enhancement to improve the metallurgical recoveries and concentrate grades is underway. Historically, spodumene recoveries of up to 85% and petalite recoveries up to 40% have been achieved in the principal pegmatite zones of the deposit and further testing is required to ascertain whether this can be extended homogenously across the deposit.</p> <p>All technologies proposed are proven and well tested with easily sourced components.</p> <p>Potential deleterious elements have not been observed. Removal of iron being the sole impurity control measure necessary.</p>
Environmental	<p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>An EIA was undertaken and application made for the project to proceed. The application was approved, and the Zimbabwe Environmental Management Authority issued a certificate on 24 May 2017 which gives approval from the Environmental Management Authority for the project to proceed to construction and operation.</p>
Infrastructure	<p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></p>	<p>The project is easily accessed from Harare by either the Main A2 Harare to Mozambique Highway, the Harare to Arcturus Mine strip road or the Main A3 Harare to Mutare Highway, turning off to Goromonzi and using district roads.</p> <p>Electrical National grid power is available at the project, and groundwater and surface water are plentiful.</p>
Costs	<p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p>	<p>Capital costs (capex) for the Arcadia Project have been based on, estimates of costs at the Arcadia mine, quotations, budget prices and engineering experience. The capex estimate can be considered to have an accuracy of ±15%, based on normal DFS standards.</p> <p>Operating costs (opex) have been based on estimates derived from quotations, tenders and local mining experience. Costs are</p>



Criteria	JORC Code explanation	Commentary
	<p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government and private.</i></p>	<p>based on existing mining operations within Zimbabwe. Reagent costs are based on firm and budget quotations or list prices. Labour and administration costs are based on existing mining operations within Zimbabwe, projected workforce numbers and anticipated labour costs.</p> <p>Metallurgical test work has indicated there are no deleterious elements that would impact the sale of products.</p> <p>All costs used in the study have been based on US dollars. Maintenance costs are calculated based on similar existing operations in the region and supplier information. The crushing, milling and flotation costs and respective power consumptions per tonne are based on a similar operation in the region for which over 18 months of data was analysed. The crushing, milling and flotation costs per tonne include wear items and maintenance costs.</p> <p>The mining costs, both contractor and in-house, used in this study are based on actual quotations, which are the subject of mining contracts to be finalised. The mining costs were done in the order of four years ago and are in need of an update.</p> <p>The mining contractor costs used are wet rates and are all-inclusive of other running costs, fuel usage, capital costs and management fees. Diesel consumption has been estimated based on unit consumption rates and the mine schedule. Mobilisation costs are included and capitalised under early operational costs.</p> <p>Costs are based on existing mining operations within Zimbabwe. Reagent costs are based on firm and budget quotations or list prices. Labour and administration costs are based on existing mining operations within Zimbabwe, projected workforce numbers and anticipated labour costs.</p> <p>The process plant utilises reagents in the flotation circuit and thickeners for slimes and product thickening. Consumption rates have been derived from testwork conducted during the DFS period.</p> <p>Concentrate freight costs are based on prices provided by local transport contractors to deliver product to the port of Beira, Mozambique.</p> <p>An allowance has been made for a MMCZ marketing fee of 0.875% of gross sales.</p> <p>Zimbabwe state royalty of 2.0% of gross sales has been included. A Minerals Lithium Tax of 5.0% chargeable on un-beneficiated exports of lithium has been included.</p> <p>Treatment and refining charges do not apply to the products as all sales are based on Freight on Board (FOB) prices.</p>
<p>Revenue factors</p>	<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>The spodumene and petalite concentrate prices have been based on a price deck provided by metal pricing experts Roskill. A 20-year price average has been chosen based on FOB from the Port of Beira.</p> <p>The petalite price has been determined on a 70% technical/30% chemical split with the understanding that the operation will aim to maximise its low iron technical grade petalite product as much as possible.</p> <p>A range of product prices from external reports and market analysts have been applied to confirm the robustness of the project.</p> <p>Tantalum prices are also based on deck pricing provided by Roskill. This has been based on a 10-year price average and CIF to China.</p>

Criteria	JORC Code explanation	Commentary
Market assessment	<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></p> <p><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></p> <p><i>Price and volume forecasts and the basis for these forecasts.</i></p> <p><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	<p>Market commentators continue to forecast strong growth in the demand for lithium primary products particularly as feedstock for the battery market sector.</p> <p>Global primary production is expanding to address the supply shortfall.</p> <p>Assumed long term product pricing has been based on a more balanced supply/demand scenario.</p> <p>Production volumes have been based on the above.</p> <p>Offtake agreement with Sinomine has been signed off.</p>
Economic	<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p> <p><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>A discount rate of 10% was applied.</p> <p>The sensitivity of the project's internal rate of return (IRR) to the various input parameters was subject to a sensitivity analysis.</p> <p>The economic analysis of the Project indicates the net present value to be positive based on the given product prices, capex and opex estimates.</p>
Social	<p><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></p>	<p>Key project stakeholders that were consulted during the EIA process included:</p> <ul style="list-style-type: none"> • Goromonzi Rural District Council • Chief Chikwaka as local leader • Relatives of identified graves and should the need arise an exhumation consultation and plan • Zinwa • National Social Security Agency (NSSA) • Ministry of Lands/Agritex • ZRP (National Police) • Ministry of Mines • Professor Kajese as the farm owner. <p>All stakeholders were provided the opportunity to raise any concerns and those concerns were addressed with the main stakeholders providing written letters of acceptance of the project. Most stakeholders were excited at the prospect of local jobs being created by the project.</p>
Other	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <ul style="list-style-type: none"> • <i>Any identified material naturally occurring risks.</i> • <i>The status of material legal agreements and marketing arrangements.</i> • <i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any</i> 	<p>Discussions have continued with potential customers in China, Japan and Europe.</p> <p>Mining Lease no. 38 dated 16 August 2018 has been issued to Prospect Lithium Zimbabwe (PLZ – “Mining Lease”). The Mining Lease was granted pursuant to Part VIII of the <i>Mines and Minerals Act</i> in respect of an area of 1,031 hectares. It states that the principal mineral to be mined is lithium. There are certain sections where mining will need to take place outside of the Mining Lease and these are covered by “Mining Claims”, principally by Mining Claim number 23269.</p> <p>The <i>Mines and Minerals Act</i> permits the holder of a mining lease:</p> <ul style="list-style-type: none"> • To the use of any surface within the boundaries thereof for all necessary mining purposes of this location • The right to use, free of charge, soil waste rock or indigenous grass situated within his location for all necessary mining purposes of such location • The right to sell or otherwise dispose of waste rock recovered by him from his location in the course of bona fide mining operations • The right of taking water for primary purposes.



Criteria	JORC Code explanation	Commentary
	<i>unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i>	Prospect has been granted National Project Status which exempts it from certain duties and taxes. It also enhances the status of the project which assists with the movement of goods into Zimbabwe during the construction period.
Classification	<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<p>Where applicable, Measured Mineral Resources have been classified as Proved Ore Reserves.</p> <p>Where applicable, Indicated Mineral Resources have been classified as Probable Ore Reserves.</p> <p>Mr Paul O'Callaghan, the Competent Person for this Ore Reserve estimation, has reviewed the work undertaken to date and considers that it is sufficiently detailed and relevant to the deposit to allow these Ore Reserves to be classified as Proved and Probable.</p> <p>No Inferred Mineral Resource material has been used in the formation of the pit shells.</p> <p>Zero (0) % of Probable Ore Reserves have been based in Measured Mineral Resources.</p>
Audits or reviews	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	<p>At this stage, no formal external audit has been undertaken on the ORE.</p> <p>CSA Global Pty Ltd has reviewed previous Ore Reserve estimates completed by others before completing this current estimate and no material issues have been identified.</p>
Discussion of relative accuracy/ confidence	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The study to DFS level has been undertaken with a stated relative accuracy of $\pm 15\%$. Sensitivity analysis of the cash flow model indicated that the major project drivers were product prices and metallurgical recovery.</p> <p>The project is not in operation and no production data is available for comparison to projected project parameters.</p> <p>All costs are in US dollars (US\$).</p> <p>Mining parameters and practises applied are in line with existing mining operations with pegmatite hosted ore.</p> <p>At the time of this statement, there are no Modifying Factors which may impact the viability of the Ore Reserve.</p>



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