

# Quarterly Report

For the quarter ended 31 December 2022



## Goulamina Lithium Project: Drilling results increase confidence in Resource

### Project Development

- Substantial resource upgrade increases the total Goulamina resource base by 33.8 Mt to 142.3 Mt
- Danaya increased by 33.8 Mt to 56.1 Mt, a 152% jump
- The results support possible extension of the 23-year Goulamina Project mine life
- Development work advanced with Lycopodium appointed for Goulamina Stage 1, followed by first port services agreement for the export of spodumene concentrate
- Project progressing well, and construction remains on budget and on schedule

### Corporate

- Recruitment of key executives and senior project personnel completed
- Leo Lithium held cash at 31 December of A\$70.8 million, and the Goulamina JV held cash of US\$108.5 million

### Outlook

- Construction activities to ramp up on site and delivery of key equipment to commence
- Drilling at NE Domain continues, with a further Resource update targeted for H1 2023
- Early revenue from targeted export of Direct Shipped Ore (DSO) in H2 2023; and first spodumene concentrate product on track for Q2 2024

### Managing Director, Simon Hay, commented:

*"The December quarter was a transformational one for Leo Lithium. Only a few weeks ago we received the results from a considerable resource upgrade which exceeded our expectations, confirming the large-scale, high-grade resource at Danaya, and creating new drilling targets for the team. The results also support the possible extension of the current 23-year mine life of the Goulamina Project.*

*We have hit the ground running with construction activities on schedule and budget, and with the latest mobilisation of the EPCM team. We continue to work in unison with our project partners, the Government of Mali and Ganfeng, and I want to take the opportunity to thank our team on the ground who ensure we have strong Government and local community support.*

*Our executive team and Board recruitment process is now complete, with a number of high calibre executives joining Leo Lithium, which will be of enormous benefit as we progress the Project.*

*With the aim of becoming West Africa's first lithium producer, we remain on track to complete Stage 1 of Goulamina in 2024. We are working toward the goal of first spodumene production by H1 2024, alongside the accelerated revenue opportunity from our Direct Shipped Ore in 2023."*

*This announcement has been approved for release to the ASX by the Board.*

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## DRILLING

### Danaya Domain

During the 2022 resource definition drilling campaign, Leo Lithium drilled 60 reverse circulation (RC) holes (including 6 Pre-Collar RC holes) for a total of 9,292 m and 17 Diamond (DD) holes (including 6 diamond tails) for a total of 3,428 m.

In the December Quarter, significant intersections were reported at the Danaya Domain with resource drilling revealing thick, high-grade spodumene intercepts, followed by further high grade drilling results (ASX announcements dated 3 Nov and 14 Dec 2022).

Since the last published Mineral Resource Estimate (MRE) on 20 July 2020, the Danaya Mineral Resource has increased by over 150% to **56.1 Mt @ 1.24% Li<sub>2</sub>O**. The Indicated resource classification at Danaya expanded by 213% to **24.4 Mt @ 1.34% Li<sub>2</sub>O** (Table 1 and Table 2); and the total Goulamina resource base increased by 31% from 108.5 Mt at 1.45 % Li<sub>2</sub>O to **142.3 Mt @ 1.38% Li<sub>2</sub>O** (Table 3).

Table 1: Danaya Mineral Resource (no cut-off applied) – January 2023

Classification	Tonnes (Mt)	Li <sub>2</sub> O (Mt)	Li <sub>2</sub> O (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	SG (t/m <sup>3</sup> )
Indicated	24.4	0.33	1.34	1.04	2.73
Inferred	31.7	0.37	1.16	1.12	2.73
<b>Total</b>	<b>56.1</b>	<b>0.70</b>	<b>1.24</b>	<b>1.09</b>	<b>2.73</b>

Table 2: Danaya Mineral Resource (no cut-off applied) January 2023 compared to previous MRE in July 2020

Classification	Tonnes (Mt)		Change (%)
	Jan. 2023	July 2020	
Indicated	24.4	7.8	213
Inferred	31.7	14.5	119
<b>Total</b>	<b>56.1</b>	<b>22.3</b>	<b>152</b>

Table 3: Goulamina Lithium Project Mineral Resource Estimate summary (no reporting cut off applied) – January 2023

Classification	Tonnes (Mt)	Li <sub>2</sub> O (Mt)	Li <sub>2</sub> O (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	SG (t/m <sup>3</sup> )
Measured	8.4	0.13	1.57	0.98	2.75
Indicated	72.8	1.05	1.44	0.88	2.74
Inferred	61.1	0.79	1.29	0.85	2.74
<b>Total</b>	<b>142.3</b>	<b>1.97</b>	<b>1.38</b>	<b>0.87</b>	<b>2.74</b>

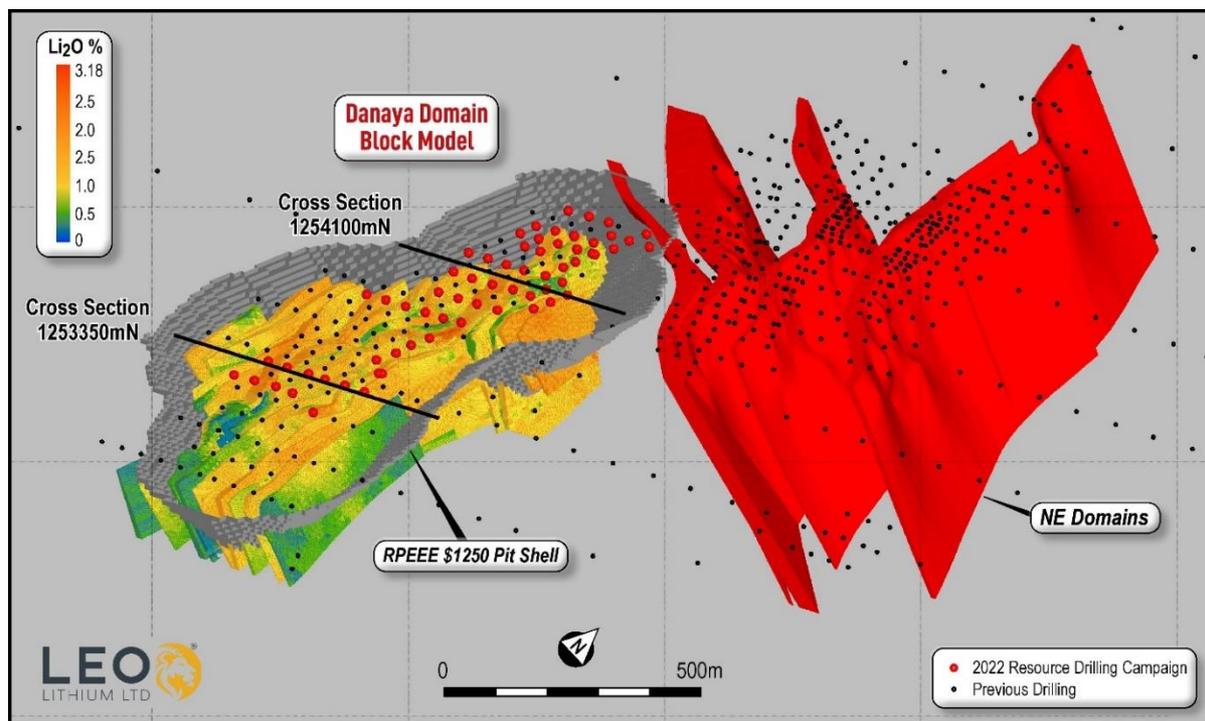
Notes:

- Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
- Data is reported to significant figures and differences may occur due to rounding.
- Mineral Resources have been reported at a 0% Li<sub>2</sub>O cut-off grade.



Danaya diamond core assay results are still pending and are therefore not included in this MRE, although diamond core geological and structural information was used to assist in defining the pegmatite solids. Assay results will be reported once received and reviewed.

Future drilling will focus on further resource extensions below and along strike of the optimised RPEEE pit shell as well as increasing the confidence level by converting inferred to indicated material within the pit shell.



**Figure 1: Oblique view of the updated Danaya Domain Block Model and the geological model of the NE-Domains. Block Model Li<sub>2</sub>O grade shown and coloured by grade. NE-Domains in red. US\$1250 RPEEE pit shell shown in grey. Only material above the pit shell is reported as Mineral Resource.**

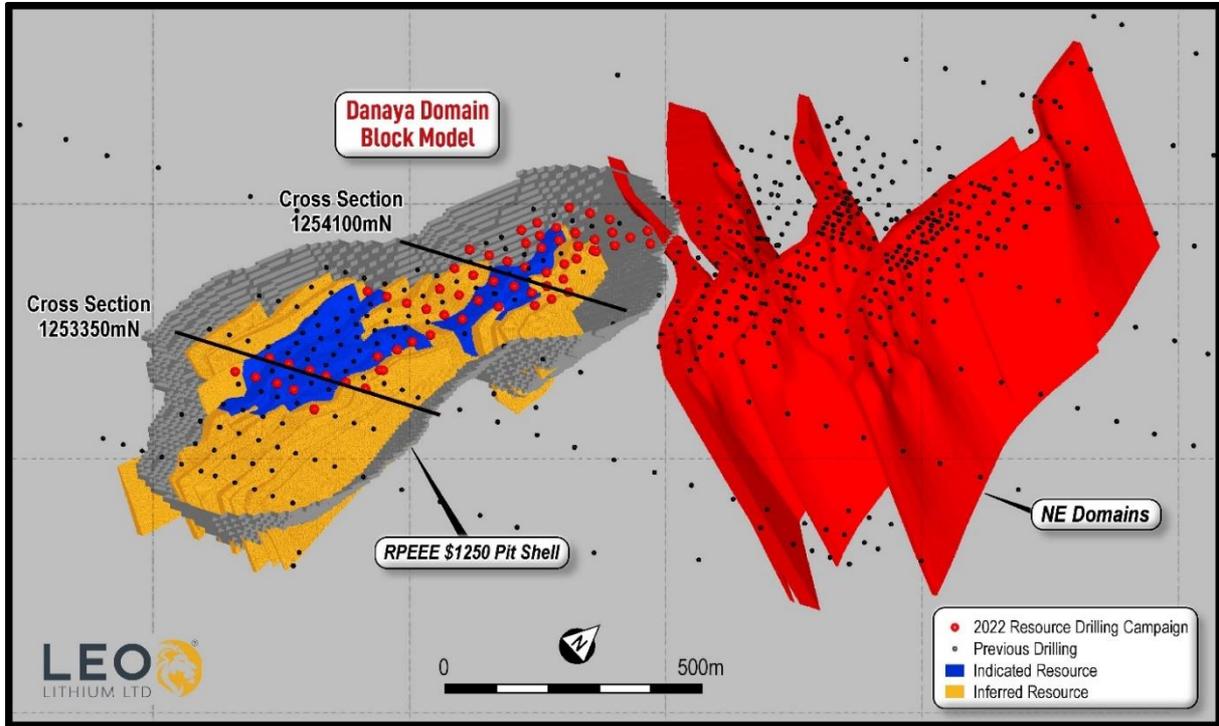


Figure 2: Oblique view looking NW of the updated Danaya block model. Indicated resource category in blue and inferred Resource category in Orange. Geological model of NE-Domains in red.

### NE Domain

Drilling activity at the Northeast Domain is ongoing with one RC rig and one diamond rig. Further Mineral Resource updates are targeted for H1 2023.



Drilling activity at NE Domain

### Drilling Outlook

The recent Danaya MRE has highlighted opportunities to further extend the Danaya Mineral Resource with additional resource drilling. The latest MRE results support a possible extension of the current 23-year Goulamina Project mine life.

### Tenements

Project	Tenement	Area (ha)	Status	Grant/Application Date	Expiry Date	Holder/Applicant
Goulamina	PE2040/19	10,067.8	Active	23/08/2019	22/08/2049	Lithium du Mali S.A

Table 4: Goulamina Project tenement information

## PROJECT DEVELOPMENT

### Plant Design, Engineering and Drafting

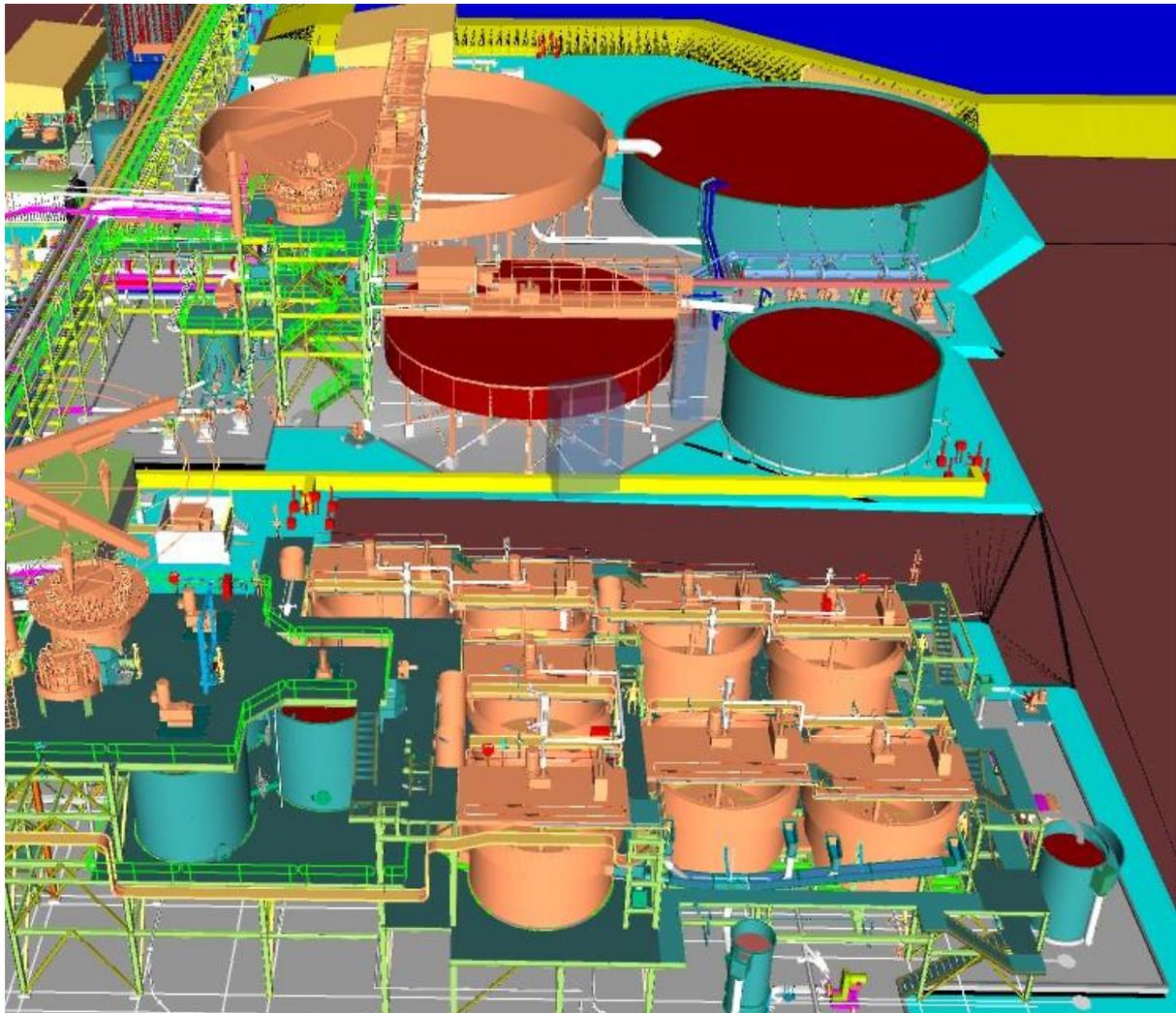
Engineering and drafting continue in accordance with the baseline plan and progress was approximately 50% complete at the end of the December quarter.

Key engineering deliverables have progressed with a safety-in-design review (HAZOP) submitted.

Engineering is complete on the design, location and material lists for the Selingue dam pipeline, and the route was recently surveyed to advance alignment compensation and detailed drawings.

Critical 3D Shop models were also completed for Primary Crushing, and Mill Access steelwork has been issued for review.

Detailed design on the processing plant continues with structural drawings for primary crushing and grinding advanced to support fabrication. Minor delays in the receipt of certified vendor data is placing pressure on the final drafting progress, this is not impacting the earthworks and concrete progress on site at this stage. The receipt of the last of the vendor data will allow the confirmation of the final process design criteria in early 2023.



3D Plant model

### Procurement and Contracts

Leo Lithium is pleased to report that Lycopodium Minerals Pty Ltd (Lycopodium) was awarded the contract for Engineering and Procurement (EP) and associated Project Management (PM) services for the Goulamina Project Stage 1. Valued at approximately AU\$22.7 million, the EP and PM contract will be executed over the next 12 -18 months.

The Project transport and logistics contract has been awarded to coincide with the planned completion of manufacturing or supply of various goods. The first airfreight and shipments are expected to arrive on site during the current quarter.

The concrete installation, steel and platework fabrication contracts were awarded during the quarter. All major mechanical process equipment has now been tendered and electrical switch-rooms and transformers have also been tendered.



Clarifications are continuing with the shortlisted mining contractors and power generation suppliers with final adjudication expected in February. In both cases, the short list includes West African experienced companies who have committed to rapid mobilisation.

Fabrication is well advanced on major plant components in China with minor COVID related delays. Leo Lithium and Ganfeng teams have planned quality assurance and factory acceptance inspections in February as the ball mill, crushers, thickeners and magnetic separators are all approaching completion.

In total, ~80% (by value) of EPCM tender packages have been issued to vendors.



**ATC site office pad**



**Mill clay excavation**

## Permitting

The Environmental and Social Impact Assessment (ESIA) was approved as part of the Exploitation Permit in 2019 and has a validity period of 30 years. The ESIA has been updated to reflect minor changes to the Project and this will be submitted to Malian authorities in the current quarter.

## Site Works

Major site works commenced in the quarter, including the pioneer camp and services commissioned. As part of the pioneer camp construction, 73 modular buildings were built, and the mobilisation of the first teams occurred during the period.

The establishment of the concrete batch plant commenced in mid-November, and site mobilisation and delivery of batching plant continues. The delivery of concrete aggregate material, sand and cement is ongoing.

Earthworks activities have advanced in the plant area (including the grinding, magnetic separation, flotation, reclaim and primary crusher areas) and the tailings storage facility (TSF) in line with the plan. This results in multiple work fronts now available for concrete activities including the temporary construction offices and permanent accommodation which will occur in Q1 2023.

At the end of the period, 118 community members were employed on the Project and 100% of unskilled jobs were held by Malians, on average 80% of the skilled jobs were held by Malians and 70% of supervisors were Malians.



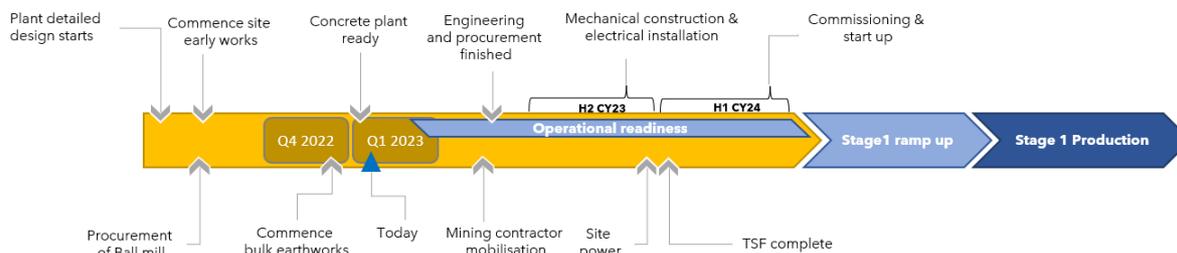
**Site mobilisation and Pioneer Camp**

**Schedule**

The project schedule continues to outline a 27-month construction and commissioning timeline, which commenced in February 2022. The critical path continues to run through concreting, installation of the ball mill, supply and installation of plant buildings and electrical services. The installation of the overland water piping package from Sélingué Dam is now being designed (after ground truthing) and will remain a key area of focus due to the importance of providing site process water.

All areas of the plant are planned to undergo mineral commissioning in Q2 2024 culminating in the first product towards the end of the quarter.

The production ramp up schedule will be further refined over the next three months and will be a key responsibility of the incoming Chief Operating Officer.



**Project schedule overview**

**Accelerated Production Plan**

The Project Team continues to assess the schedule for acceleration opportunities. With the arrival on site of the construction supervision, plus the mobilisation of the initial trade contractors, detailed construction planning and schedule optimisation has commenced.

During the quarter, the DSO opportunity was investigated further. The benefits of DSO include de-risking project development through the early commissioning of drill and blast, mining, crushing and logistics activities, taking advantage of elevated spodumene prices and bringing forward revenue to prove balance sheet flexibility.



Early stage planning was completed targeting two 30,000 tonne shipments in Q4 2023. The mine schedule and starter pit concept were developed with the DSO area demarcated from the construction activities so as not to impact the Stage 1 schedule. Early engagement with various operational contractors has commenced with a view to understanding acceleration options and early mobilisation. JV partner Ganfeng is supportive of the concept and interested in purchasing the DSO. The DSO plans will continue to be refined during the current quarter and details will be announced when finalised. Sales will be dependent on market pricing and a JV decision to proceed closer to the time.

### **Product Logistics**

The initial focus on product transport logistics is centred on analysing the regional bulk haulage market in the preferred transport corridor from the Goulamina site to Abidjan, Côte d'Ivoire.

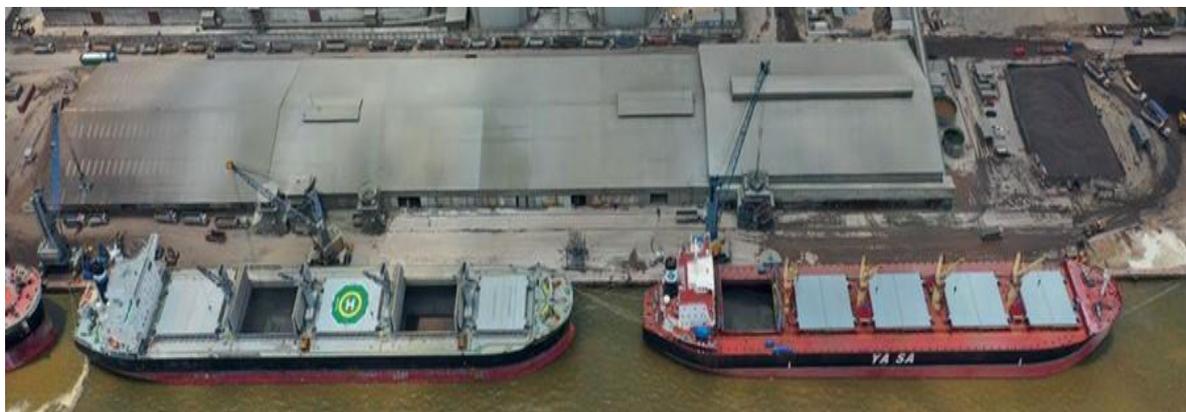
As a result, during the period Leo Lithium secured its first port agreement, at the Abidjan Port in Côte d'Ivoire. The contract is with Terminal Vraquier Abidjan (SEA-Invest), a privately-owned international port operator, and owner of the concession for the bulk carrier terminal in Abidjan. The Abidjan Port is the critical seaport of Cote d'Ivoire and one of the most prominent African deep-water ports, also serving as a transshipment hub for Mali and Burkina Faso. It is located approximately 1,000km from Goulamina.

The 10-year contract provides port access and services, including product unloading, storage and shiploading of Goulamina spodumene concentrate product at the Abidjan Port. The agreement stipulates a minimum product throughput of 250,000 tonnes per annum, with product receipt and export to commence from 1 July 2023.

This agreement will minimise material movements and optimise logistics costs.



Leo Lithium's warehouse at the Port of Abidjan, located at Berth 14 as shown in the red outline



**SEA-Invest Bulk Carrier Terminal at Abidjan**

The current operational concept is that multiple export routes will be utilised to provide optionality and risk mitigation benefits. Therefore, the next priority is to secure a second port as a means of risk mitigation, with Dakar in Senegal or San Pedro in Côte d'Ivoire being considered at this early stage and the San Pedro Port was inspected late in the quarter. A senior logistics consultant with significant experience in West Africa joined the team and his primary role will be refining the logistics plan, coordinating the trucking tender including meeting and assessing vendors and selecting alternative ports.



**Goulamina Project Product transport and logistics routes under consideration**



In terms of transport logistics, an airstrip package is also underway with engineering and approvals pathways commenced. Construction completion and permitting approvals are targeted for Q3 2023.

### **Project Outlook**

The Project remains on budget, with engineering and design advancing. Site activities are ramping up with the award and mobilisation of contractors for the various construction and installation packages. The construction supervision team is now on site, with updated and detailed construction plans to be provided by mid-February 2023.

Committed costs at the end of December were US\$110 million (43%) of the budget US\$255.5 million (including contingency). The project remains on budget though some packages have come in above budget due to cost escalation, necessary changes in design and some Stage 2 scope items brought forward into Stage 1 with these increases absorbed by the contingency fund at this stage. When the majority of tendered packages have been assessed and awarded, an updated forecast cost will be announced. This is expected towards the end of Q1 2023 and the Project schedule will also be confirmed at that time.



**Clearing of permanent camp with temporary camp in background**

### **Safety**

Safety and security are a priority for Leo Lithium and the Project has no recordable safety or environmental incidents to date.

Additional independent risk, security, and medical reviews commenced as part of a strategy to bring experts on board to enhance the existing management plans. The EPCM

contractor has mobilised safety professionals to site as part of their first contingent who are working alongside the Owners team.

A paramedic team is stationed on site during construction activities, and all staff are to be trained in First Aid this year.

## ENVIRONMENTAL, SOCIAL, GOVERNANCE

Leo Lithium is conscious of the importance of Environmental, Social and Governance (ESG) practices for its operations and the local communities. The Company contracted a senior ESG professional late in 2022 to develop a Sustainability Program in 2023. Initial tasks include conducting a materiality assessment, choosing an ESG framework and preparing the Company's first sustainability report.

Leo Lithium's Waste & Hazardous Substance Management Plan continues to be under review, and the purchase of Environmental Monitoring Equipment is underway.

The Company continues to work on developing strong ties with local communities. Company representatives from the Community Department meet regularly with the communities to provide updates on the Project including upcoming impacts as well as opportunities for employment and supply of goods and services, as outlined in the Stakeholder Management Plan.

The first major Community Development Project to be undertaken by the Goulamina JV has been selected with a potable water supply to be installed in the four nearest communities in 2023. Technical assessment will kick off this quarter and construction will commence on the completion of engineering design. This is one of the broader community investment activities that would be sponsored by the JV during the project execution phase.

## STAGE 2 EXPANSION

The Company intends to expand Goulamina production in Stage 2 to approximately 831ktpa of spodumene production after Stage 1 is fully operational. A scope, contract and work plan is being finalised with a consultant with the initial works expected to be completed prior to the end of Q1 2023. This work will in part inform the execution strategy and plan for Stage 2.

## PEOPLE

Excellent progress was made with the appointments of key executives, strengthening Leo Lithium's executive management team, and adding further technical, operational and West African experience.

At a Board level, Rick Crabb was appointed Non-Executive Chairman. Mr Crabb brings over 30 years of high-level mining experience in Australia and Africa, including Mali. For over 20 years he was Chairman of ASX/TSX-listed uranium miner Paladin Energy Ltd, and is currently Non-Executive Chairman of Eagle Mountain Mining Limited and Ora Gold Limited.

Experienced Perth-based executive, Ron Chamberlain, was appointed Chief Financial Officer (CFO) and Joint Company Secretary. Mr Chamberlain brings expertise in projects and operations including in Africa, and in lithium. The appointment follows the resignation of Joe Belladonna from the role for personal matters.

Strengthening the Board, Alan Rule was appointed as Non-Executive Director, and follows the resignation of Mark Hepburn. Mr Rule has covered the role of CFO for a number of ASX-listed mining companies with operations and projects in Australia and Africa, and in commodities including lithium. He is currently a Non-Executive Director of Yellow Cake plc and Ora Banda Mining Limited.

Mining engineering executive Tim Richards recently joined as Chief Operating Officer. With over twenty years of mining experience in West Africa, he has worked across multiple projects in Ghana and Mauritania as well as in South Africa. At Leo Lithium, Mr Richards will focus initially on developing the operations team, operational readiness and firming up plans for producing DSO in 2023.

## **MALI GOVERNMENT RELATIONS & COMMUNITY**

As increased activities occur at the Goulamina Project, Leo Lithium places significant importance on advancing its stakeholder engagement program. The Company continues to build on the excellent relationship with the Government of Mali, through regular interactions with ministers, regional leaders including the Governor of Bougouni, and the local community.

As part of Government engagement, Leo Lithium's Managing Director, Simon Hay, and Ganfeng representative, Wenbo Wang, met with the Minister of Mines, Energy and Water, His Excellency Lamine Traore, in November. The Minister was briefed on the Project progress and the early production option with the DSO currently being pursued. The Minister reiterated his strong support, and excitement for the DSO opportunity.



**Leo Lithium MD Simon Hay and Ganfeng representative Wenbo Wang with the Mali Minister of Mines, Energy and Water, His Excellency Lamine Traore**

The Government of Mali has the right to a 10% free carry interest in the Goulamina Lithium Project through a prescribed process. Initial discussions have commenced, and this process remains at an early stage with no defined timetable.

Mali general elections are scheduled to occur throughout 2023 and conclude with Presidential elections in February 2024. The Company does not envisage any impact to the Project, considering the strong Government support for Goulamina, and the fact that the Goulamina region remains calm and stable.

Leo Lithium also places great importance on fostering relationships with the local Goulamina community and continues engagement activities.

The Company is accelerating local employment growth with ~130 locals employed. The total workforce as at 31 December was 415 employees with 50% employed by IMS, the earthworks contractor.



Engagement with Goulamina local community

## EVENTS

Leo Lithium advances marketing efforts to raise awareness of the Goulamina Project.

The Company hosted an Investor Webinar on Wednesday, 14 December for the Capital Markets community, an opportunity for Chairman Rick Crabb and Managing Director Simon Hay to provide an update on the recent activities at the Goulamina Project. The webinar was extremely well received.

Mr Hay also presented to the investment community at the 121 Mining Investment conference in Frankfurt in November.

## FINANCE

Leo Lithium's closing cash at 31 December 2022 was A\$70.8 million.

The major cash flow items for Leo Lithium during the quarter included:

- Cash Inflows:
  - Refund from JV for exploration and development costs of A\$2.3 million;
  - Refund from JV for pre-IPO costs of A\$5.8 million paid to Firefinch, and
  - Interest received of A\$0.1 million.
- Cash Outflows:
  - Goulamina JV exploration and development costs of A\$4.5 million, incurred by Leo Lithium on behalf of the JV that is expected to be recovered in the March Quarter; and
  - Other corporate costs and working capital movements of A\$2.6 million;

JV management fees for the September and December quarters of A\$0.3 million were received in January 2023.

Pursuant to ASX Listing Rule 5.3.4, the following expenditure has occurred since the listing of Leo Lithium on ASX.

Item	Current Quarter	Year to date	As Per IPO Prospectus dated 6 May 2022 <sup>1</sup>
Stage 1 Development capital costs for Goulamina Lithium Project	Nil	Nil	\$60 million
Transaction Costs associated with the offer, formation of the Goulamina Joint venture and the demerger	\$1.4 million	\$4.8 million	\$5 million
Repayment of amounts payable under the loan agreement	\$0.0 million	\$10.3 million	\$10 million
Working capital, exploration and other expenses	\$2.4 million	\$8.0 million	\$25 million

**Table 5: Expenditure since listing. 1: Expenditure is over a two-year period. 2: Will be contributed to the Goulamina JV after the investment of available cash at the Goulamina JV level and the drawdown of the Ganfeng debt facility.**

Payments of \$314,142 were made to related parties during the quarter, being the payment of the Managing Director's salary, in addition to Non-Executive Directors' fees as set out in Section 6 of the Quarterly Cashflow Report.

As the Goulamina JV is not consolidated in Leo Lithium's financial statements, the cash impacts of the Goulamina JV are not included in Leo Lithium's cash flows or Appendix 5B (to be released separately), apart from any equity or loan funds provided by Leo Lithium to the Goulamina JV. The Goulamina JV arrangement is a 50:50 joint venture with Ganfeng and Leo Lithium accounts for the arrangement as an investment utilising the equity method as per the Accounting Standards.

The Goulamina JV's closing cash at 31 December 2022 was US\$108.5 million.

The Goulamina JV's major cash flow items during the quarter were:

- Cash Outflows:
  - Project development costs of US\$19.5 million



**Leo Lithium (ASX: LLL)** is developing the world-class Goulamina Lithium Project (Goulamina) in Mali. Goulamina represents the next lithium project of significant scale to enter production. The hard rock lithium project will be the first of its kind in West Africa. Early stage development is underway and first production is targeted for H1 2024.

**Globally significant project:** Forecast spodumene concentrate production of 506ktpa increasing up to 831ktpa under Stage 2 positions Goulamina amongst the world's largest spodumene projects.

**Development underway and substantially funded:** One of a limited number of lithium development projects globally which are substantially funded. Ganfeng have provided US\$130 million in equity funding and a US\$40 million debt facility.

**Large scale, high grade orebody:** World-class, high grade hard rock lithium deposit with a Mineral Resource of 142.3 Mt at 1.38% Li<sub>2</sub>O and Ore Reserve of 52 Mt at 1.51% Li<sub>2</sub>O (1.9 Mt LCE). Drilling is underway targeting increases to the current resources and reserves.

**Quality product:** High quality spodumene concentrate with test work validating 6% Li<sub>2</sub>O with low impurities and having been successfully converted to battery grade lithium hydroxide.

**World-class partner:** Project being developed in 50/50 partnership with Ganfeng, the world's largest lithium chemical producer by production capacity, providing funding, offtake and operational support to de-risk development.

**Decarbonisation thematic:** Providing an essential raw material to the lithium-ion battery value chain for a clean energy future.

<sup>1</sup> Based on first 5 years of steady state Stage 2 production

## Ore Reserves, Mineral Resources and Production Targets

The information in this announcement that relates to production targets and Ore Reserves is extracted from the Company's replacement prospectus dated 6 May 2022 (Prospectus) which is available at [leolithium.com](http://leolithium.com). The information in relation to Mineral Resources is extracted from the ASX announcement dated 17 January 2023 (Announcement). The Company confirms that all material assumptions and technical parameters underpinning the production targets, Mineral Resources and Ore Reserve estimates in the Prospectus and Announcement continue to apply and have not materially changed and it is not aware of any new information or data that materially affects the information included in the Prospectus or Announcement.

## Competent Persons Statement

The information in this announcement that relates to Exploration Results at Goulamina is based on information compiled by Mr Simon McCracken. Mr McCracken is an employee of Leo Lithium Limited and a member of the Australian Institute of Geoscientists. Mr McCracken has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr McCracken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



**Developing the world-class Goulamina Lithium Project; the next lithium project of significant scale to enter production**

Goulamina is a large scale, high grade, high quality spodumene deposit. Stage 1 production of 506,000 tpa of spodumene concentrate is targeted for H1 2024.

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