

ASX: ARE

CAPITAL STRUCTURE:

Issued shares: 3,619 million

Listed options: None

Unlisted options: 58 million

Cash on hand: \$512,000

DIRECTORS:

Patrick Elliott, Non-Exec Chairman

Lindsay Owler, Director/CEO

Andrew Bursill, Non-Exec Director

Mick Billing, Non-Exec Director

COPPER PROJECTS:

MURDIE, SOUTH AUSTRALIA

Copper, gold (large IOCG)

Phase: Exploration

Interest: Argonaut 100%

TORRENS, SOUTH AUSTRALIA

Copper, gold (large IOCG)

Interest: Aeris Resources 70%, Argonaut 30%

Agreement Phase: Exploration

Operator: Aeris

GOLD, NICKEL LITHIUM PROJECT

HIGGINSVILLE, WESTERN AUSTRALIA

Gold, nickel, lithium

Phase: Exploration

Interest: Argonaut 80%

Operator: Argonaut

URANIUM PROJECTS:

FROME, SOUTH AUSTRALIA

Uranium

Phase: Exploration

Interest: Orpheus 100%, Option to acquire 100%

CUMMINS, SOUTH AUSTRALIA

Uranium

Phase: Exploration

Interest: Option to acquire 100%

MOUNT DOUGLAS, NORTHERN TERRITORY

Uranium

Phase: Exploration

Interest: Orpheus 100%

RANGER NE, NORTHERN TERRITORY

Uranium

Phase: Exploration

Interest: Orpheus 100%

T-BONE, NORTHERN TERRITORY

Uranium

Phase: Exploration

Interest: Orpheus 100%

WOOLNER/MARRAKAI, NORTHERN TERRITORY

Uranium

Phase: Exploration

Interest: Orpheus 100%

Quarterly report

FOR THE PERIOD ENDING 30 JUNE 2022

Argonaut Resources NL (*Argonaut* or *the Company*) (ASX: ARE) presents the following report for the period to 30 June 2022 (*the Quarter*).

Highlights

Lumwana West, Zambia – Copper-Cobalt

Argonaut is seeking the restoration of 22399-HQ-LEL, Lumwana West

- The Company is continuing to work cooperatively with the relevant Zambian authorities to achieve the reinstatement of exploration licence 22399-HQ-LEL, Lumwana West.
- Argonaut has assisted appropriately with investigations into shortcomings and illegalities in the Governmental processes that led to the purported licence cancellation.
- On 27 April 2022, the Minister of Mines and Mineral Development wrote to the Company's Zambian lawyers to advise that the Company's appeal of 3 January 2022 was currently under "active consideration".
- On 28 June 2022, the Office of the Attorney General within the Zambian Ministry of Justice wrote to Argonaut's lawyers to advise that instructions in relation to the Company's appeal had been sought.
- At the time of the purported cancellation, the Company's 90% held subsidiary, Mwombezhi Resources Ltd, was operating in full compliance with all licence conditions and other regulatory requirements.
- Argonaut's objective of completing a feasibility study into a two-phase copper/cobalt mine and processing facility at Lumwana West complements the Zambian Government's stated objective of greatly increasing copper production.

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Higginsville, Western Australia – Lithium, Gold and Nickel

Lithium Targets

- Field mapping and sampling by Argonaut has defined an extensive swarm of lithium-caesium-tantalum pegmatite dykes (*LCT Pegmatites*).
- The prospectivity of these LCT pegmatites, known as the Darson Pegmatite Swarm, is confirmed by Caesium and Rubidium assays (see Table 1).
- Initial mapping has delineated five pegmatites up to 90m in thickness, located at the margin of the Pioneer Granite.
- This is a prime geological setting for the discovery of a lithium deposit and is located within four kilometres of the Dome North lithium pegmatite deposits (see Figure 2) and 12 kilometres of the Sinclair Caesium Mine (see Figure 1).
- Regionally, the Darson Pegmatite Swarm is located near the centre of a cluster of lithium Resources including: Bald Hill (Alliance), Mount Marion (Mineral Resources) and Buldania (Liontown). See Figure 1.
- Argonaut plans to:
 - seek approvals for an RC drilling campaign targeting lithium;
 - complete soil sampling, rock chip sampling and mapping to define possible extensions to the known pegmatites plus potential new pegmatites; and
 - proceed to drill the lithium targets following receipt of approvals.

New JVA

- Under the JVA, Argonaut holds an 80% interest in exploration licence E15/1489 which hosts:
 - the Darson Pegmatite Swarm;
 - the Amorphous gold deposit; and
 - the Footes Find gold prospect (Figure 2).
- E15/1489 is located adjacent to the Higginsville gold mine (see Figures 1 and 2).
- Under the JVA, Argonaut paid Loded Dog \$75,000 and issued \$50,000 of ordinary Argonaut shares at 0.39c/share.

Murdie, South Australia – Copper

- Argonaut has partnered with SensOre Limited, a mineral exploration artificial intelligence (AI) and machine learning leader to generate copper-gold probability targets at the Murdie project using SensOre's proprietary AI and machine learning.
- Initial copper-gold probability mapping by SensOre was completed during the Quarter. This exercise generated a major new copper-gold target within the Murdie licences that is subject to further consideration by the Argonaut team.
- Argonaut continues to engage with relevant contractors in relation to further drilling at Murdie.
- On 16 March 2021, the Barngarla Determination Aboriginal Corporation filed an application in the South Australian Supreme Court for a review of the authorisation announced to the ASX by Argonaut on 4 January 2021.
- The review was heard in July 2021. The parties are awaiting judgement.

Torrens, South Australia – Copper

- The Torrens Joint Venture is currently reviewing appropriate remote sensing techniques to assist with refining of geophysical drill targets.
- A magnetotelluric survey to identify deep-crustal structures feeding potential mineralisation, and an ambient noise tomography survey to improve the resolution of gravity modelling are both under consideration.

Uranium Exploration Assets and IPO Plans

- Argonaut has acquired a substantial package of prospective uranium exploration licences in South Australia and the Northern Territory via a 67% held, unlisted public company, Orpheus Minerals Ltd (*Orpheus*).
- Argonaut has decided that specialised uranium exploration work and the funding of these works is better undertaken through a separate listed entity.
- Argonaut is planning for Orpheus to list on the Australian Securities Exchange (when prevailing market conditions are suitable).
- Orpheus undertook a seed capital raising to unrelated parties of \$370,000 to fund its activities.
- Prospectus preparations are well advanced.
- The Argonaut board is considering:
 - an entitlement offer of Orpheus shares to Argonaut shareholders as part of the IPO process; and
 - a potential in-specie distribution of Orpheus shares to Argonaut shareholders (subject to statutory escrow provisions).
- Details of Orpheus exploration assets have been outlined in ASX releases dated 9 September 2021 and 20 September 2021.

Outlook

- The copper price dropped considerably during the Quarter on the back of global macro-economic concerns. The current copper price of US\$3.30/lb appears to Argonaut to be a sentiment-driven overcorrection that is unsustainable in the medium-term due to supply and demand fundamentals.
- There have been relatively few significant copper discoveries over the last 10 years and consequentially there is a scarcity of new copper mines in the development pipeline. Copper remains a prudent target for junior exploration companies.
- The planned IPO of Orpheus Minerals comes at an appropriate time in the uranium price cycle with uranium demand expected to grow as a result of increased nuclear power generation.

Lumwana West, Zambia

(Copper-Cobalt)

Purported cancellation of exploration licence 22399-HQ-LEL

Argonaut became aware that Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West, was not renewed by the Zambian Government on 28 December 2021 as expected. This licence area contains the Nyungu deposit.

At the time of the purported cancellation, the Company's 90% held subsidiary, Mwombezi Resources Ltd, was operating in full compliance with all licence conditions and other regulatory requirements.

Argonaut's Zambian lawyers have identified substantive procedural errors in both the non-renewal of 22399-HQ-LEL and the hurried and potentially corrupt grant of a new licence over the Lumwana West area to a recently registered company with no apparent financial or technical capacity.

Argonaut had a history of raising and investing significant amounts of money in the rigorous technical investigation of the Lumwana West licence area, particularly the Nyungu deposit. The Company had commenced the fast-tracking of a feasibility study into a commercial mining operation at the site via a team of internationally known experts. It would appear to be against the national interests of Zambia to stop this process.

Recovery action by Argonaut

The Company is continuing to work cooperatively with the relevant Zambian authorities to achieve the reinstatement of 22399-HQ-LEL. The Company has assisted appropriately with investigations into shortcomings and illegalities in the Governmental processes that led to the purported licence cancellation.

On 27 April 2022 the Minister of Mines and Mineral Development wrote to the Company's Zambian lawyers to advise that the Company's appeal of 3 January 2022 was currently under "active consideration".

The Company and its lawyers met with the Minister of Mines during April specifically to put forward the particulars of the Company's complaints regarding procedural errors by the Mining Cadastre Department in relation to Lumwana West. Argonaut is pleased and encouraged by the Minister's attention to the details of our matter.

The Company has also made presentations on the extent and quality of exploration and feasibility work completed on the project to date, as well as the Company's investment track-record in Zambia.

Argonaut's objective of completing a feasibility study into a two-phase copper/cobalt mine and processing facility at Lumwana West compliments the Zambian Government's stated objective of greatly increasing copper production.

Higginsville, Western Australia

(Gold, Lithium and Nickel – Argonaut 80%)

During the Quarter, Argonaut executed a new Joint Venture Agreement (JVA) with Loded Dog Prospecting Pty Ltd (Loded Dog) in relation to the Higginsville project in Western Australia. This JVA allows Argonaut to proceed with planned exploration of a swarm of potentially lithium-bearing pegmatites at E15/1489, within 4km of Essential Metals' Dome North lithium Resource.

Field mapping and sampling by Argonaut in the previous Quarter, has defined an extensive swarm of lithium-caesium-tantalum pegmatite dykes (LCT Pegmatites) within E15/1489. The prospectivity of these LCT pegmatites, known as the Darson Pegmatite Swarm, is confirmed by Caesium and Rubidium assays (see Table 1).

E15/1489 is located adjacent to the Higginsville gold mine (see Figures 1 and 2).

Under the JVA, Argonaut holds an 80% interest in exploration licence E15/1489 which hosts:

- the Darson Pegmatite Swarm;
- the Amorphous gold deposit; and
- the Footes Find gold prospect.

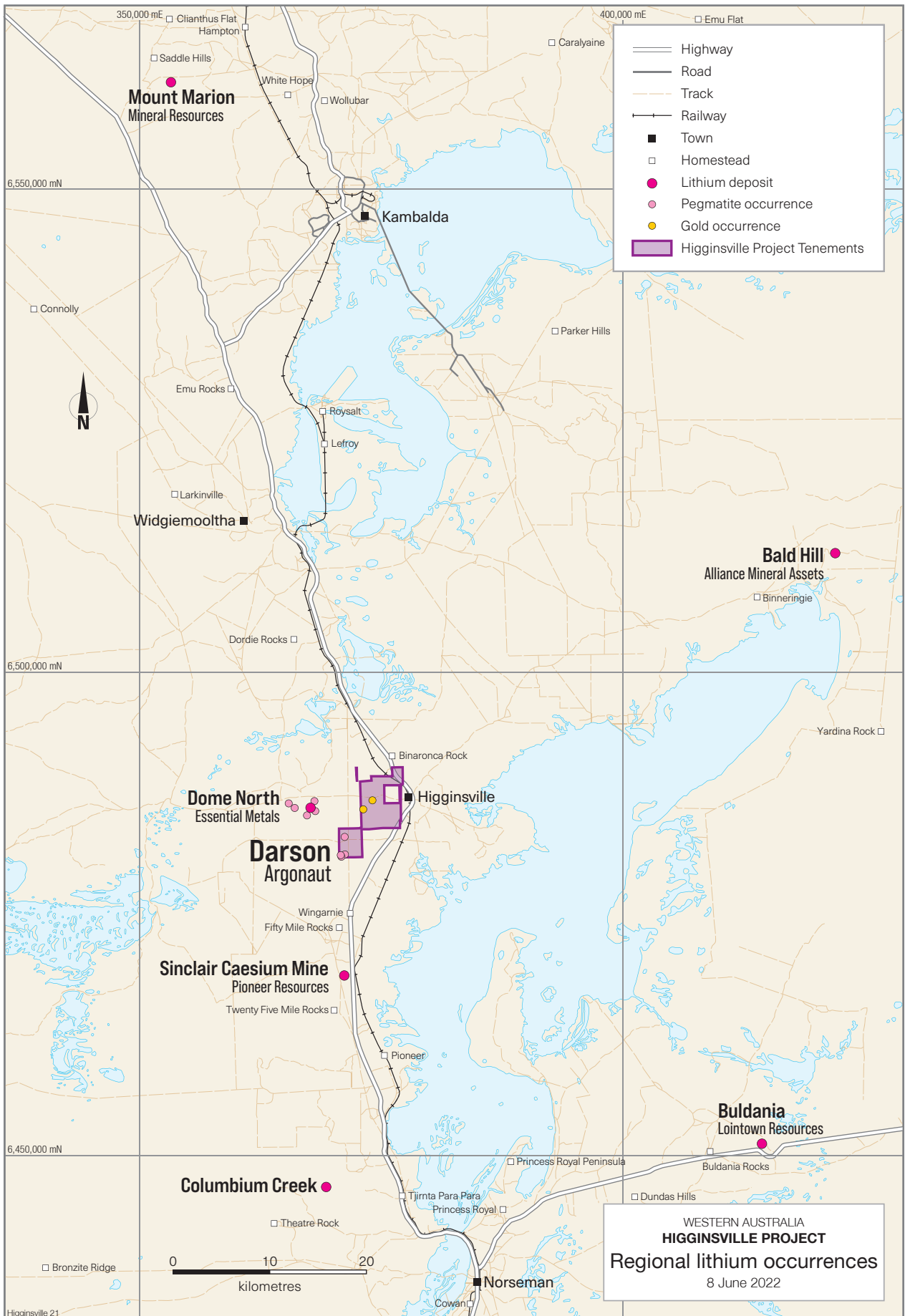


Figure 1 Regional lithium pegmatite deposits in the area of the Darson Pegmatite Swarm, Higgsville, WA.

Lithium Exploration

Numerous Surrounding Lithium Deposits

The Darson Pegmatite Swarm is well located amongst numerous significant lithium Resources in the Eastern Goldfields region of the southern Yilgarn Craton, Western Australia. The area features the Bald Hill lithium tantalum mine, the Mount Marion lithium mine and the Buldania lithium project, as well the nearby Dome North lithium Resource¹.

The Darson prospect is adjacent to a sealed highway and rail line and benefits from being in the Tier-1 mining jurisdiction of Western Australia.

Darson Pegmatite Swarm

FIVE LCT PEGMATITES UP TO 90M WIDE

Fieldwork undertaken by Argonaut during 2022 has defined an extensive swarm of LCT Pegmatites which are located near the margin of the Pioneer Granite. The Pioneer Granite caused the emplacement of LCT Pegmatites at the Dome North lithium deposit (Figure 2) and at Sinclair, which was previously mined for Caesium (Figure 1).

The Darson pegmatites were mapped from outcrops which were located via traversing on foot. Five pegmatites were mapped, and these are identified as Darson North and Darson South 1 to 4 (Figure 2). The pegmatites trend (strike) approximately north-south, and initial outcrop mapping indicates thicknesses of up to 90m.

Outcrops of the Darson South pegmatite dykes are obscured to the north by sediments of an east-west oriented creek (Figure 2). Therefore, strike lengths of the pegmatites are currently uncertain and require further investigation.

Exploration Results

HIGHLY FERTILE, ZONED LCT PEGMATITES

Rock-chip samples of outcropping pegmatites plus surrounding quartz veins and country rocks have been taken. Although no significant lithium results were returned, the indicator elements showed very encouraging, high-order results (see Table 1).

It is common for LCT Pegmatites in this area of WA to be zoned, with the lithium minerals being in the central zone. The zones are broadly defined as: barren, fertile and LCT Pegmatite. These zones can be established using indicator elements and various ratios of elements.

All samples taken of the Darson South pegmatites are "fertile" according to K/Rb vs Cs ratios².

These pathfinder results warrant traverses of angled RC (reverse circulation percussion) drill holes to test for lithium mineralisation within these fertile outer zones.

Table 1 Indicator geochemistry of outcropping, potentially lithium-bearing LCT Pegmatites at the Darson Pegmatite Swarm, near Higginsville, WA. Analysis of outcrop sampling returned Caesium and Rubidium levels that indicate these pegmatites are fertile³, hence may be proximal to lithium zones. These wide pegmatites are excellent drilling targets.

Sample	Pegmatite ID	Outcrop Description	Caesium (ppm)	Rubidium (ppm)
HIG403	Darson South 4	Quartz, plagioclase, feldspar, mica granitic pegmatite	23.23	515.08
HIG404	Darson South 4	Quartz, feldspar pegmatitic granite.	59.48	806.68
HIG405	Darson South 4	Quartz, feldspar pegmatitic granite.	52.6	796.29
HIG406	Darson South 4	Quartz, feldspar pegmatitic granite.	36.28	826.85
HIG407	Darson South 3	Quartz, feldspar pegmatitic granite.	90.81	1911.53
HIG409	Darson South 1	Quartz, feldspar, biotite pegmatitic granite	47.26	981.56
HIG410	Darson South 1	Quartz, feldspar, biotite pegmatitic granite	77.59	1399.99

<20 Barren <500 Barren
 >20 and <100 Fertile >500 and <3000 Fertile
 >100 LCT Pegmatite >3000 LCT Pegmatite

These results were previously announced to the ASX by Argonaut on 14 June 2022.

1 <https://wcsecure.weblink.com.au/pdf/ESS/02529464.pdf>.

2 Breaks, F.W., Selway, J.B., & Tindle, A.G., 2003. Fertile peraluminous granites and related rare element mineralization in pegmatites, Superior province, northwest and northeast Ontario: Operation Treasure Hunt. Ontario Geological Survey, Open File Report 6099.

3 <https://www.appliedgeochemists.org/sites/default/files/documents/Explore%20issues/EXPLORE190-MArch2021.pdf>.

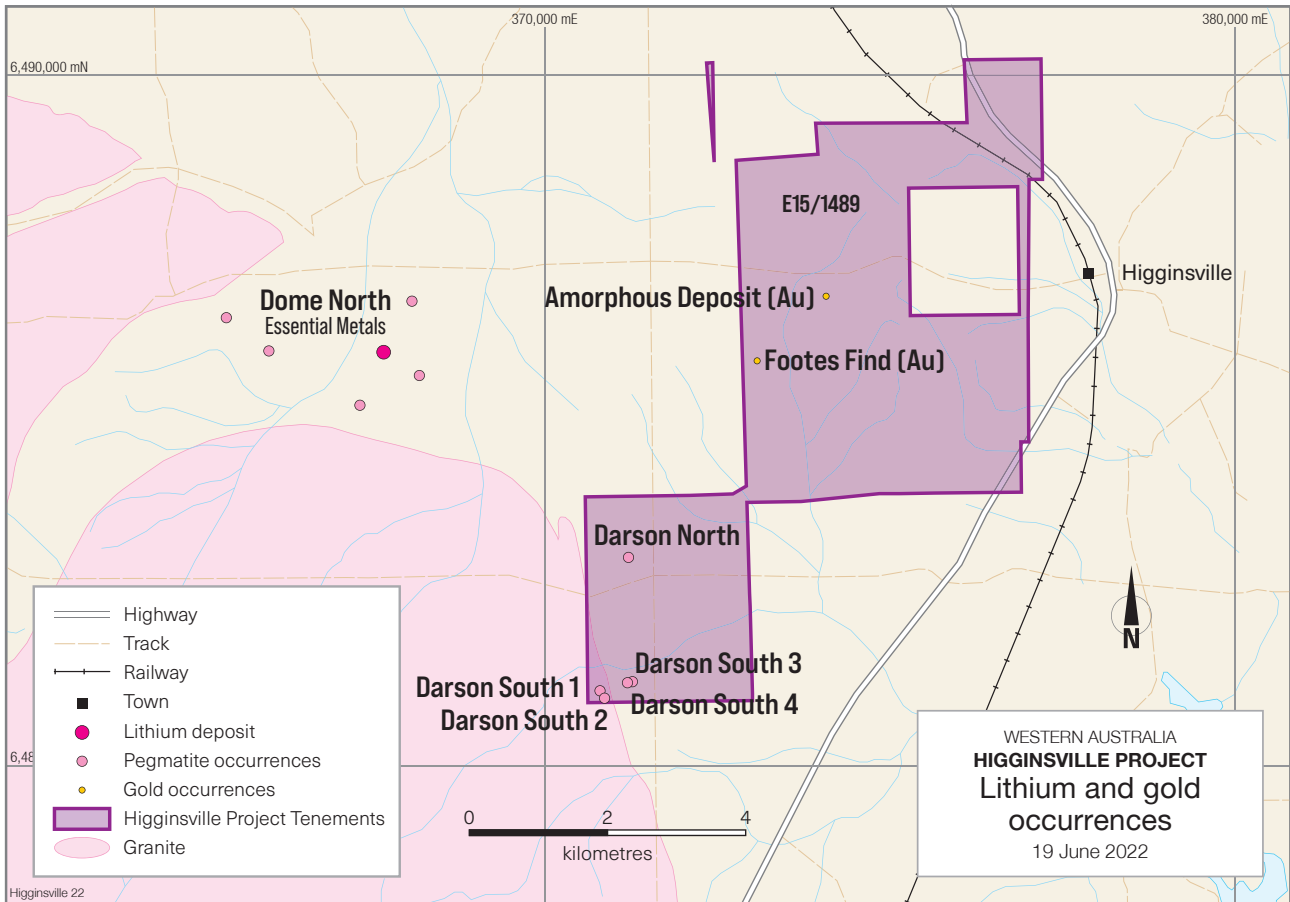


Figure 2 The Darson Pegmatite Swarm is located radially outwards from the Pioneer Granite, four kilometres from, and in the same geological setting as, Essential Metals' Dome North lithium Resource.

Planned Exploration Program

FURTHER DEFINITION OF PEGMATITES

Follow-up, low impact fieldwork is to be undertaken once an appropriate field crew becomes available. This work will involve:

- systematic outcrop sampling of known pegmatites to better define LCT Pegmatite zonation;
- systematic traversing of the Darson prospect to identify, map and sample additional pegmatite outcrops and extensions to known outcrops;
- soil sampling using field-based, handheld XRF analysis of samples to define Caesium and Rubidium anomalism in soils above buried LCT Pegmatites.

Contingent auger drilling through transported creek sediments may be planned depending on results of the fieldwork described above.

REVERSE CIRCULATION DRILLING

Planned drilling involves east-west traverses of angled RC drill holes across known LCT Pegmatites targeting areas of high geochemical fertility.

Access to the area is via the Chalice Mine access road from the Coolgardie-Esperance Highway, then via a pipeline track to within 300m of the anticipated drill site.

Argonaut is preparing to seek the relevant approvals for drilling at the Darson prospect.

Amorphous Gold Deposit

The Amorphous gold deposit and the Footes Find gold prospect are located on E15/1489, to the northeast of the Darson Pegmatite Swarm (Figure 2). Argonaut first drilled the Amorphous gold deposit in 2017. Drilling has significantly increased the potential for a commercial gold deposit at Amorphous by demonstrating improved continuity of gold grades along a strike length of 800m.

Drilling results previously generated by Argonaut at the Amorphous Gold Deposit include:

Drill Hole	Interval (m)	Grade (g/t gold)	From (m)
AMRC005	4	1.53	69
and	11	2.76	77
including	6	4.62	81
including	3	7.47	82
AMRC006	6	2.37	44
including	3	4.38	45
AMRC008	3	1.66	56
AMRC009	2	1.28	22
AMRC015	4	2.36	64
AMRC024	5	2.04	37

Gold mineralisation at Amorphous is typically hosted in an altered shear-zone within an easterly dipping gabbroic unit.

Previous exploration results were originally announced to the ASX on 21 November 2017 in an announcement titled *"Higginsville Gold Drilling Significantly Increases Potential for Commercial Gold Deposit"*.

New Joint Venture Agreement

Between February 2022 and May 2022, Argonaut and its joint venture partner at Higginsville, Loded Dog, were in dispute in relation to the parties' respective interests in four exploration licences under an old joint venture agreement dated February 2017.

The dispute was resolved via a Settlement Agreement between the parties and the subsequent execution of a new JVA titled "Eastern Goldfields New Joint Venture and Royalty Agreement" which relates to exploration licence E15/1489. The JVA is pursuant to the terms of the Settlement Agreement. As part of the settlement, Argonaut agreed to relinquish its claim to three lower prospectivity exploration licences E15/1523, E15/1588 and E16/1773 in order to focus on the more prospective E15/1489 licence area. The principal terms of the new JVA are:

- Argonaut paid Loded Dog a sum of \$75,000 and issued 12,820,513 fully paid ordinary Argonaut shares (\$50,000 at 0.39c/share) to bring the new joint venture into effect.
- Percentage interests in E15/1489 are now: Argonaut 80%, and Loded Dog 20%.
- Argonaut will sole fund joint venture activities until completion of a bankable feasibility study and a decision to mine is made.



Photo 1 Darson South 1, highly fertile, outcropping LCT Pegmatite.



Photo 2 Darson South 3, 90m wide outcrop of highly fertile, LCT Pegmatite.



Photo 3 Darson South 4, 60m wide outcrop of fertile, LCT Pegmatite.



Photo 4 Darson South 4, outcropping, fertile LCT Pegmatite.

Murdie, South Australia

(Copper – Argonaut 100%)

The Murdie project is located in South Australia near the eastern margin of the Gawler Craton. The project area covers 1,015 square kilometres of highly prospective Olympic Domain geology and includes more than 50 discrete gravity anomalies that are located immediately south and east of the Torrens project and east of the Carrapateena mine (Figure 3). These anomalies represent locations with significant volumes of high-density rock that could contain economic Iron-Oxide Copper-Gold (IOCG) deposits.

Argonaut holds a 100% interest in the Murdie project.

Targeting

Argonaut has been reviewing its targeting priorities following the 2021 drilling program. Targeting to date has been by geophysical modelling of ground gravity survey data.

Argonaut has partnered with SensOre Limited, a mineral exploration artificial intelligence (AI) and machine learning leader to generate copper-gold probability targets at the Murdie project using SensOre's proprietary AI and machine learning.

Initial copper-gold probability mapping by SensOre was completed during the Quarter. This exercise generated a major new copper-gold target within the Murdie licences that is subject to further consideration by the Argonaut team.

Argonaut may proceed to a second phase of more detailed consideration by the SensOre system using the “Discriminative Predictive Targeting” module.

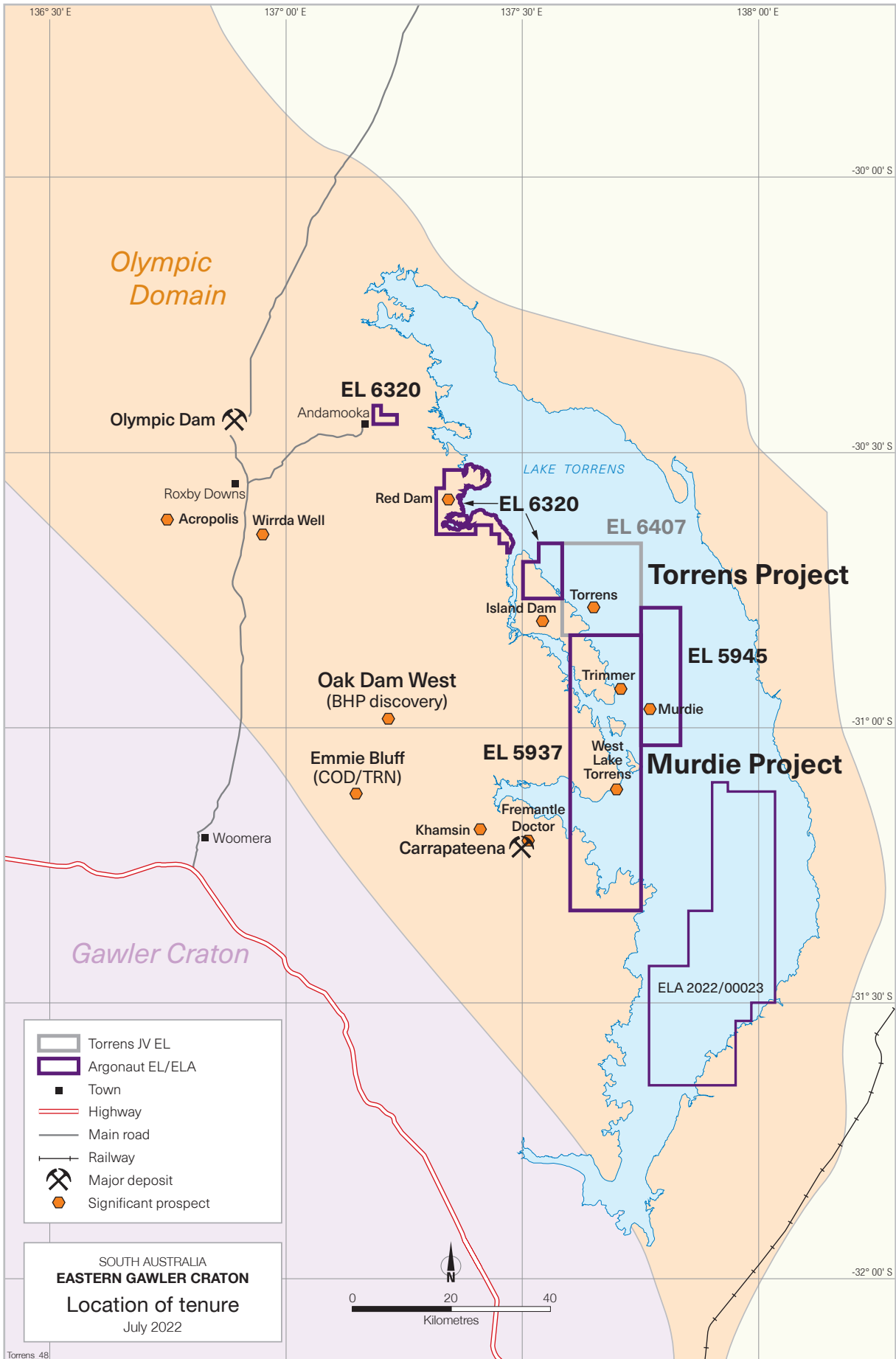


Figure 3 Lake Torrens exploration licences.



Photo 1 Drilling at WLTD002, Murdie project (Photo courtesy of SA Dept for Energy and Mines).

Exploration Planning

Argonaut's drilling authorisations for the Murdie project contain two main options for accessing drill sites on Lake Torrens – access via protective matting and via helicopter. Argonaut has held discussions with relevant contractors regarding the continuation of drilling using both techniques.

Rain Events

Rain events during the 2021 drilling campaign caused surface wetness and pooling of water in certain areas of Lake Torrens. Near-surface geotechnical conditions became unsuitable for accessing drill sites on the surface of Lake Torrens using protective matting. There was a further significant rain event in 2022. Argonaut is monitoring the conditions of the lake surface.

Authorisations

Authority under the Aboriginal Heritage Act

On 29 December 2020, the South Australian Government granted an authorisation under the Aboriginal Heritage Act. The authorisation allows for exploration-phase drilling plus potential resource and reserve definition drilling. The approval covers the parts of exploration licences 5937 and 5945 that overlap with Lake Torrens or are onshore and within 500m of the Lake Torrens shoreline.

Judicial Review Application

On 16 March 2021, the Barngarla Determination Aboriginal Corporation filed an application in the South Australian Supreme Court for a review of the authorisation announced to the ASX by Argonaut on 4 January 2021.

On 19-20 July 2021, the South Australian Supreme Court part-heard this application. Remaining submissions were filed during July and August 2021. The parties are currently awaiting judgement.

The Company notes that there are no registered Barngarla heritage sites at Lake Torrens.

Exploration works undertaken at the Murdie project are duly authorised. The Company is confident that the State's authorisation process was robust.

Operational Approval

The 'Exploration Program for Environment Protection and Rehabilitation' for ongoing exploration activities including ground gravity surveys and diamond drilling at exploration licences 5937 and 5945 was approved under the South Australian Mining Act in January 2020.

The approval allows for up to 200 deep diamond drill holes into a string of large and prospective IOCG anomalies from nearshore and offshore locations on the salt crust of Lake Torrens.

Native Title Access

In 2018, the South Australian ERD Court granted native title authority to enter and undertake mining operations (exploration) within the area of EL5937 and EL5945.

Torrens, South Australia

(Copper – Argonaut 30%)

The Torrens anomaly is a particularly attractive set of exploration targets hosted in a geological domain that has persistently rewarded explorers with large, high-grade copper discoveries. The discovery of an IOCG deposit by a listed junior exploration company creates a once-in-a-lifetime opportunity for shareholders. Argonaut continues to work towards this goal.

Exploration in the Olympic Domain has historically been hindered by two factors: the thickness of cover formations, and difficulties securing access. These factors, although frustrating, have preserved exploration targets that would have otherwise been tested.

Statistically, the drill testing of gravity targets in the Olympic Domain has delivered a higher than average discovery rate. It makes commercial sense to invest copper exploration budgets into drilling well defined gravity targets in the Eastern Gawler Craton.

Major, diversified miners and mid-cap copper miners are specifically seeking to increase copper production due to forecast copper supply shortages. There was an underinvestment in copper exploration between 2012 and 2017, consequentially there are relatively few copper deposits available to acquire. Copper discoveries are necessary and copper deposits are in-demand.

The combination of geological prospectivity, access rights and a global appetite for new copper deposits make the Torrens Joint Venture project a compelling investment opportunity.

Work Program

The Torrens Joint Venture is currently reviewing appropriate remote sensing techniques to assist with refining of geophysical drill targets.

A magnetotelluric survey to identify deep, crustal structures feeding potential mineralisation and an ambient noise tomography survey to improve the resolution of gravity modelling are both under consideration.

Torrens Project

The Torrens Joint Venture project is located within the globally recognised Olympic Domain, at the eastern margin of South Australia's Gawler Craton, within 40 kilometres of BHP Group's Oak Dam copper discovery, 50 kilometres of OZ Minerals' Carrapateena copper-gold deposit and 75 kilometres from BHP's Olympic Dam mine. BHP's recent discovery at Oak Dam has confirmed the validity of the Torrens target and the copper endowment of the Eastern Gawler Craton.

Torrens Anomaly

The Torrens anomaly is a coincident magnetic and gravity anomaly with a footprint larger than that of Olympic Dam. The anomaly is located at the Torrens Hinge Zone, a continent-scale zone of crustal weakness that appears to have been a conduit for mineralising fluids from the Earth's mantle.

Drilling at Torrens to date has confirmed the existence of a major IOCG mineralising system beneath several hundred metres of sedimentary cover. Further drilling is required to intercept the modelled copper-gold mineralisation. In the event of a discovery, the Torrens anomaly has the scale to host a world-class copper-gold deposit.

Red Dam, South Australia

(Copper – Argonaut 100%)

Argonaut holds exploration licence EL6320 located adjacent to the Torrens Project (Figure 3). The 198 square kilometre licence area is in three parts and encompasses the Red Dam IOCG target, previously identified by WMC.

The licence areas were relinquished by BHP prior to the announcement of the Oak Dam discovery.

Argonaut has assessed the relevant, historical drill core and conducted a ground gravity survey in 2020 to improve resolution for geophysical modelling and target generation.

Uranium Assets, South Australia and Northern Territory

(Uranium – Argonaut 100%)

Argonaut has acquired a package of prospective uranium exploration licences in South Australia and the Northern Territory via a 67% held, unlisted public company, Orpheus Minerals Ltd (*Orpheus*).

As uranium is a specialist exploration activity, Argonaut has decided that the exploration work and funding of these licences is better undertaken through a separate listed entity with separate management.

Orpheus undertook a seed capital raising of \$370,000 to fund its activities. Argonaut is planning for Orpheus to list on the Australian Securities Exchange in mid-2022. Prospectus preparations are well advanced.

The Argonaut board is considering:

- an entitlement offer of Orpheus shares to Argonaut shareholders as part of the IPO process; and
- a potential in-specie distribution of Orpheus shares to Argonaut shareholders (subject to statutory escrow provisions).

Details of Orpheus exploration assets have been outlined in ASX releases dated 9 September 2021 and 20 September 2021.

Deed of Variations to Secure Exploration Licences 100%

South Australia

During the Quarter, Orpheus exercised its right to acquire 100% of exploration licences EL 6624 (*Cummins*) and EL 6703 (*Erudina*) via the execution of Deeds of Variation to the original Option, Sale and Milestone Agreements. The vendor of each of these ELs will be issued shares at the time of an initial public offering. Completion of the exploration licence transfers is conditional on Ministerial consent. Upon satisfaction of the conditions of each Deed, Orpheus through its wholly owned subsidiary of Trachre Pty Ltd, will hold 100% of these licences.

Northern Territory

During the Quarter, Orpheus also executed a Deed of Variation with the vendors of the Mount Douglas Project, exploration licence EL 31451 (*Mount Douglas*). The Deed provides for a cash payment to be made to the vendor at the time of an initial public offering and removes the option to receive the consideration in shares.

Kamapanda, Zambia

(Copper-Cobalt – Argonaut 90%)

The Kamapanda project is located in the Central African Copperbelt, North-western Province, Zambia (Figure 4). The large-scale exploration licence covers an area of 225 square kilometres and extends to the Angolan border. The area is remote, with limited access and is largely underexplored.

The area is situated adjacent to the Domes Region, on the southwestern flank of the Kabompo Dome and is prospective for copper-cobalt mineralisation within units of the Lower Roan Group of the Katanga Supergroup.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring the licence and has received operational approvals and consent from Zambian authorities to commence exploration activities.

A program of regional stream sediment sampling is planned to outline both gold and copper potential.

Kalaba East, Zambia

(Copper-Cobalt – Argonaut 90%)

The Kalaba East project is located in the Central African Copperbelt, North-western Province, Zambia (Figure 4). The area is prospective for large tonnage, low to medium grade copper-cobalt deposits.

The Kalaba East project lies adjacent to ARC Minerals' recent Cheyeza East Prospect and Muswema North Prospect discovery and west of the world-class copper mine Sentinel, operated by First Quantum Minerals (Figure 4). At Cheyeza East, ARC Minerals intercepted 18m at 2.35% copper and 39m at 1.47% copper.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring two contiguous licences and has received operational approvals and consent from Zambian authorities to commence exploration activities.

Argonaut plans to conduct a regional geochemical sampling program at Kalaba East.

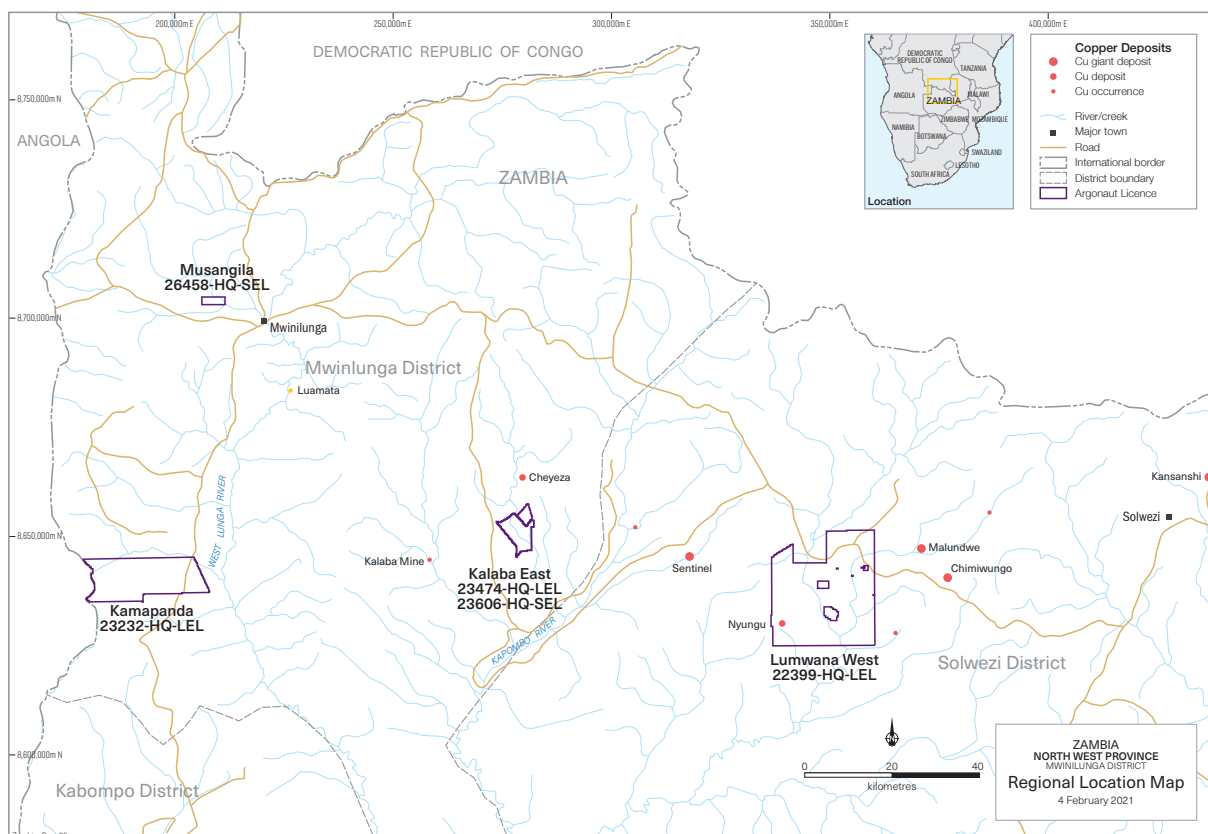


Figure 4 Exploration licences located within the Northwestern Province, Zambia.

Musangila, Zambia

(Copper-Cobalt – Argonaut 90%)

The Musangila project is located in the Central African Copperbelt, North-western Province, Zambia (Figure 4). The area is prospective for large tonnage, low to medium grade copper-cobalt deposits and alluvial gold.

The area is situated adjacent to the Domes Region, on the northwestern flank of the Kabompo Dome and is prospective for copper-cobalt mineralisation within units of the Lower Roan Group of the Katanga Supergroup.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring the licence and is waiting for operational approvals and consent from Zambian authorities to commence exploration activities.

Argonaut plans to conduct a geochemical sampling program followed by RC drilling.

Kroombit, Queensland

(Zinc-Copper – Argonaut 100%)

Argonaut holds a 100% interest in the Kroombit zinc-copper deposit in Central Queensland via its interest in ML5631 and MDL2002. Mining on ML5631 is subject to a 2% net smelter royalty, payable to Aeris Resources Ltd.

MDL2002 has been renewed by the Queensland Government Department of Resources for a further five years to 31 August 2026.

On 11 June 2009 Argonaut announced a maiden resource estimation for the Kroombit deposit. The Indicated and Inferred Resources at Kroombit comprise:

- a Zinc Resource of 5.2 million tonnes at 1.9% zinc and 0.15% copper using a cut-off of 1.0% zinc, for 98,800 tonnes of zinc and 7,800 tonnes of copper; and
- a Copper Resource of 0.9 million tonnes at 1.0% copper at a cut-off of 0.5% copper for 9,000 tonnes of copper.

In addition, Exploration Results are reported comprising a defined Exploration Potential of between:

- 1 million and 1.5 million tonnes at 1.5% to 2.0% zinc, and between
- 0.5 million and 1 million tonnes at 0.7% to 1.3% copper.

No field-based work was undertaken at Kroombit during the Quarter.

Aroona, South Australia

(Zinc – Argonaut 100%)

The Aroona project is prospective for zinc-silicate (willemite) mineralisation in the locally endowed carbonate units of the Wilkawillina Limestone, adjacent to the Aroona fault which hosts numerous willemite occurrences along trend, including the Aroona, Aroona II and Reliance deposits.

Field work to date has been regional in scope and includes mapping, airborne geophysics and minor rock chip sampling targeting the NW Aroona prospect. No drilling has been conducted.

Argonaut holds a 100% interest in EL 6199.

No field-based work was undertaken at Aroona during the Quarter.

Corporate

Exploration and Evaluation expenditure during the Quarter comprised:

	\$A'000
Government, tenement, community	193
Metallurgy, assaying, gravity	93
Joint venture expenditure	11
Field work and associated costs	16
Total at 2.2 in Appendix 5B	313

Related party payments for the quarter totalled A\$111,000, comprising the salary to the CEO and director fees for the non-executive directors.

There was no production or development expenditure during the Quarter.

About Argonaut

Argonaut Resources NL is an Australian Securities Exchange listed exploration and development company focused on the Murdie copper project in South Australia, the Orpheus Minerals Ltd uranium IPO and copper exploration in North-western Zambia.

This report was authorised for release by:

Lindsay Owler

Director and CEO

Argonaut Resources NL

Sections of information contained in this report that relate to Exploration Results were compiled or supervised by Mr Lindsay Owler BSc, MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Argonaut Resources NL. Mr Owler holds shares and options in Argonaut Resources NL, details of which are disclosed in the Company's 2021 Annual Report. Mr Owler has sufficient experience which is relevant to the style of mineral deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Owler consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information regarding Resource definition and Exploration Potential for the Kroombit deposit is extracted from a report entitled 'Maiden resource estimate announced for Queensland zinc-copper project'. This report was released on 11 June 2009 and is available to view on www.asx.com.au. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Tenement Schedule

Table 1 – Summary of mining tenements

SOUTH AUSTRALIAN MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
EL 6569	18/10/2020	17/10/2022	104	Campfire Bore / Sandstone	Coombedown Resources Pty Ltd	10% ¹
EL 6199	04/06/2018	03/06/2023	27	Myrtle Springs	Kelaray Pty Ltd	100%
EL 6407 ⁴	18/08/2019	17/08/2022	295	Lake Torrens	Kelaray Pty Ltd	30%
EL 5937 ⁴	30/03/2017	29/03/2022	794	West Lake Torrens	Kelaray Pty Ltd	100%
EL 5945 ⁴	20/04/2017	19/04/2022	221	Murdie	Kelaray Pty Ltd	100%
EL 6320	28/02/2019	27/02/2024	198	Andamooka Station	Kelaray Pty Ltd	100%
EL 6554	07/12/2020	06/12/2022	960	Frome Downs	Trachre Pty Ltd	100% ⁵
EL 6555	07/12/2020	06/12/2022	947	Curnamona	Trachre Pty Ltd	100% ⁵
EL 6624 ²	23/07/2021	22/07/2027	952	Cummins	Groundwater Science Pty Ltd	Acquiring 100%
EL 6703 ²	03/02/2022	02/02/2028	987	Erudinna	Groundwater Science Pty Ltd	Acquiring 100%

SOUTH AUSTRALIAN MINERAL EXPLORATION LICENCE APPLICATIONS						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
2022/00007	11/02/2022	-	977	Lake Frome	Kelaray Pty Ltd	100%

QUEENSLAND MINING LEASE						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
ML 5631	16/05/1974	31/05/2026	0.32	Kroombit	Kelaray Pty Ltd	100%

QUEENSLAND MINERAL DEVELOPMENT LICENCE						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
MDL 2002	03/08/2016	31/08/2026	0.64	Kroombit	Kelaray Pty Ltd	100%

ZAMBIAN LARGE SCALE EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
22399-HQ-LEL ³	29/12/2017	28/12/2021	521	North Western Province	Mwombezhi Resources Ltd	90%
23232-HQ-LEL	10/04/2019	09/04/2023	226	North Western Province	Sunrise Exploration and Mining Limited	90%
23474-HQ-LEL ⁴	18/12/2018	17/12/2022	41.58	North Western Province	Sunrise Exploration and Mining Limited	90%

ZAMBIAN SMALL SCALE EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
23606-HQ-SEL ⁴	18/12/2018	17/12/2022	9.4	North Western Province	Sunrise Exploration and Mining Limited	90%
26458-HQ-SEL	10/06/2020	09/06/2024	9.72	North Western Province	Sunrise Exploration and Mining Limited	90%

WESTERN AUSTRALIAN MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
E15/1489	14/08/2017	13/08/2022	52	Higginsville	Loded Dog Prospecting Pty Ltd	80%

NORTHERN TERRITORY MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
EL 31451	08/09/2017	07/09/2023	484.52	Mount Douglas	Trachre Pty Ltd	100% ⁵

NORTHERN TERRITORY MINERAL EXPLORATION LICENCE APPLICATIONS						
Tenement	Applied	Expiry	Area (km ²)	Locality	Licensee	Interest
ELA 32445	25/06/2020	-	230.24	T-Bone	Trachre Pty Ltd	100% ⁵
ELA 32446	25/06/2020	-	63.71	Ranger NE	Trachre Pty Ltd	100% ⁵
ELA 32038	22/11/2018	-	127.49	Mount Douglas (Mary River)	Trachre Pty Ltd	100% ⁵
ELA 32075	15/12/2021	-	103.63	Mount Douglas (Ban Ban)	Trachre Pty Ltd	100% ⁵
ELA 33088	20/12/2021	-	473.23	Woolner	Trachre Pty Ltd	100% ⁵
ELA 33089	20/12/2021	-	458.81	Marrakai	Trachre Pty Ltd	100% ⁵

Table 2 – Summary of mining tenements acquired in Quarter

There was one tenement acquired in the June 2022 Quarter.

SOUTH AUSTRALIAN MINERAL EXPLORATION LICENCE APPLICATIONS						
Tenement	Applied	Expiry	Area (km ²)	Locality	Licensee	Interest
2022/00023	5/04/2022	-	993	Lake Torrens East	Kelaray Pty Ltd	100%

Table 3 – Summary of mining tenements surrendered in Quarter

There were three tenements surrendered in the June 2022 Quarter.

WESTERN AUSTRALIAN MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
E 63/1773	08/05/2017	07/05/2022	21	Hayes Hill	Loded Dog Prospecting Pty Ltd	51%
E15/1523	08/05/2017	07/05/2022	42	Higginsville	Loded Dog Prospecting Pty Ltd	51%
E15/1588	01/12/2017	30/11/2022	61	Higginsville	Loded Dog Prospecting Pty Ltd	51%

¹ Kelaray holds a 33% interest in Coombedown Resources Pty. Ltd.

² Acquiring 100%.

³ Licence subject to litigation.

⁴ Undergoing renewal.

⁵ Argonaut holds a 67% interest in Trachre Pty Ltd via Orpheus Minerals Ltd.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Argonaut Resources NL

ABN

97 008 084 848

Quarter ended ("current quarter")

June 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date 12 months \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(147)	(688)
(e) administration and corporate costs	(162)	(1,065)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	2
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(309)	(1,751)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	(75)	(75)
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(313)	(3,683)
(e) investments	-	-
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date 12 months \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Grant from the South Australian Government	-	330
2.6	Net cash from / (used in) investing activities	(388)	(3,428)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(24)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Seed Capital invested into subsidiary company	-	370
3.10	Net cash from / (used in) financing activities	-	346
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,209	5,345
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(309)	(1,751)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(388)	(3,428)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	346

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date 12 months \$A'000
4.5	Effect of movement in exchange rates on cash held	-	
4.6	Cash and cash equivalents at end of period	512	512

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	362	1,059
5.2	Call deposits	150	150
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	512	1,209

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	111
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	-	-
7.5 Unused financing facilities available at quarter end		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(309)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(313)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(622)
8.4 Cash and cash equivalents at quarter end (item 4.6)	512
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	(110)
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	-
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: No. All director fees and non-essential expenditure have been halted with September quarter outgoings expected to be below June quarter. The Board is currently reviewing exploration assets and the rolling cashflow to determine the options available to the company.	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: The Board is currently reviewing the rolling forward cashflow budgets to weigh up all funding options. The Board members are confident that they will be in a position to achieve further funding.	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. The Company may raise further capital in the future (via the issue of new shares and / or the sale of non-core assets) for the purpose of funding its planned mining exploration operations.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 July 2022

Authorised by: Lindsay Owler – Director and CEO.
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.