

HALLGARTEN & COMPANY

Initiation of Coverage

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Argonaut Resources

(ASX:ARE)

Strategy: LONG

Key Metrics	
Price (AUD)	\$0.005
12-Month Target Price (AUD)	\$0.025
Upside to Target	400%
12mth hi-low AUD	\$0.003 - \$0.03
Market Cap (AUD mn)	\$7.72
Shares Outstanding (mns)	1,544
Fully diluted Shares O/S	1,609

Argonaut Resources

The Siren Sound of Jungle Drums

- + The main focus of Argonaut has turned back to Zambia while it resolves its issues with its partner in the Torrens project in South Australia
- + Significant work was done on the Lumwana West property by Antofagasta in the period 2014-5
- + The potential for a demerger of this asset with a listing in the London market being high
- + The Cobalt component in the mix adds additional piquancy to the story
- + Our perspective for Copper is good, expecting copper to be over \$3 per lb by year end and over \$3.50 in the next 24 months
- ✗ Copper is currently not in a great place having slipped back due to the impact of the “trade” war
- ✗ Zambia is subject to fluctuating investor sentiments depending upon real or imagined fears related to the commitment of the government to attracting foreign miners
- ✗ Raising money for copper projects is still no easy task with many other projects competing for investors’ attention

Diversification for Troubled Times

Sensible Australian juniors have two or more projects up their sleeve, at any given time, that are quite different from their principal asset. These are usually diversified by geography and by metal. The idea is that if the main metal goes off the boil or if some travail hits the main project then there is salvation at hand. Having a parachute on board is always handy.

In the case of Argonaut it spent two decades waiting for its Torrens Project to come out of legal limbo and had to evolve second string opportunities to keep itself busy and viable. The principal “other” asset was its Zambian copper interests with a third string being its position in the Higginsville gold region of Western Australia.

Torrens came back to life with a vengeance in 2018 when the logjam finally cleared, only to come a cropper when a less-than-competent senior JV partner inflicted a major SNAFU on the drilling program a month ago. This body blow sent Argonaut reeling for no fault of its own. Until the *imbroglio* is resolved attention should turn back to its Zambian assets, both for further work, expansion of the territory and hopefully a London-focussed spin-out.

In this note, we highlight the Zambian opportunity and how it might evolve.

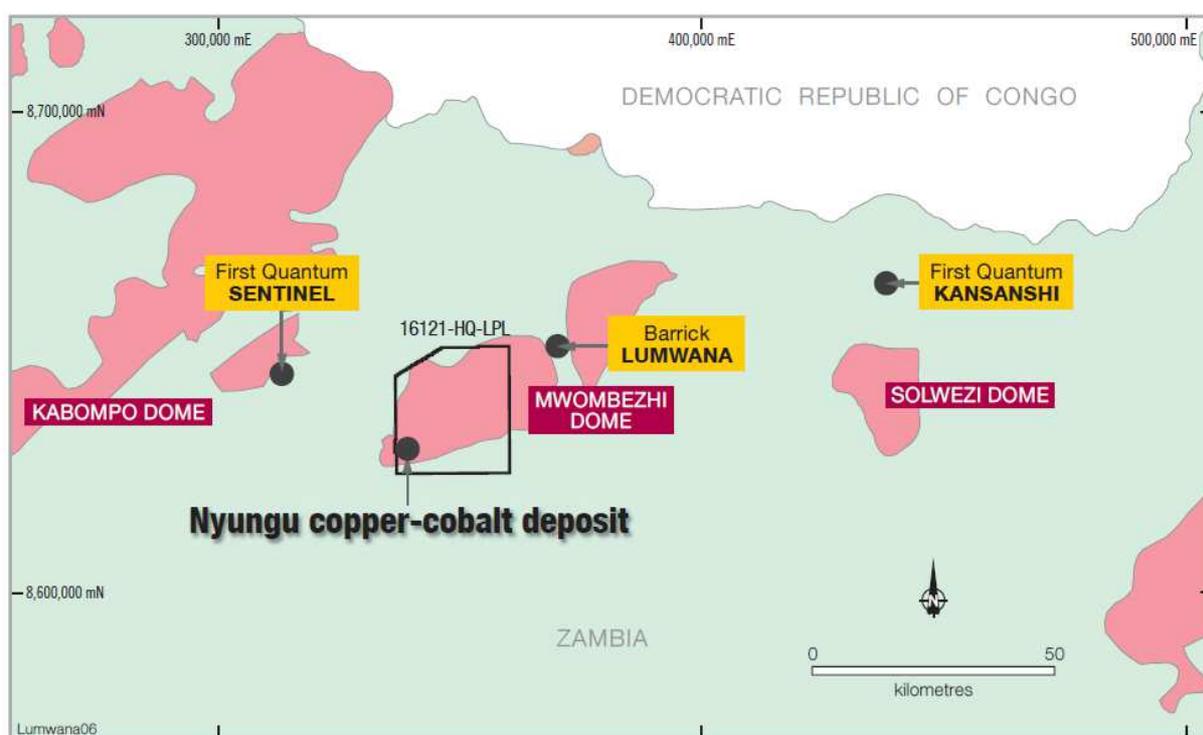
Lumwana West

The Lumwana West project is located on the Central African Copperbelt, of North-Western Province, Zambia. The area is prospective for large tonnage, low to medium grade copper/cobalt deposits. There

are several major mines nearby to Lumwana West that are hosted in similar geological settings.

Nearby mines include Barrick Gold Corporation’s Lumwana Mine (1.1 billion tonnes at 0.50% copper) on the eastern lobe of the Mwombezhi Dome and First Quantum Minerals Ltd’s Kansanshi (1.1 billion tonnes at 0.81% copper), the largest copper mine in Africa.

The party that has done the work in recent times on Argonaut’s asset was Antofagasta plc. Their interest in the project was obtained under an earn-in style option agreement that ran from April 2014 to October 2015. Antofagasta spent US\$3.9mn on regional exploration at Lumwana West during this period.

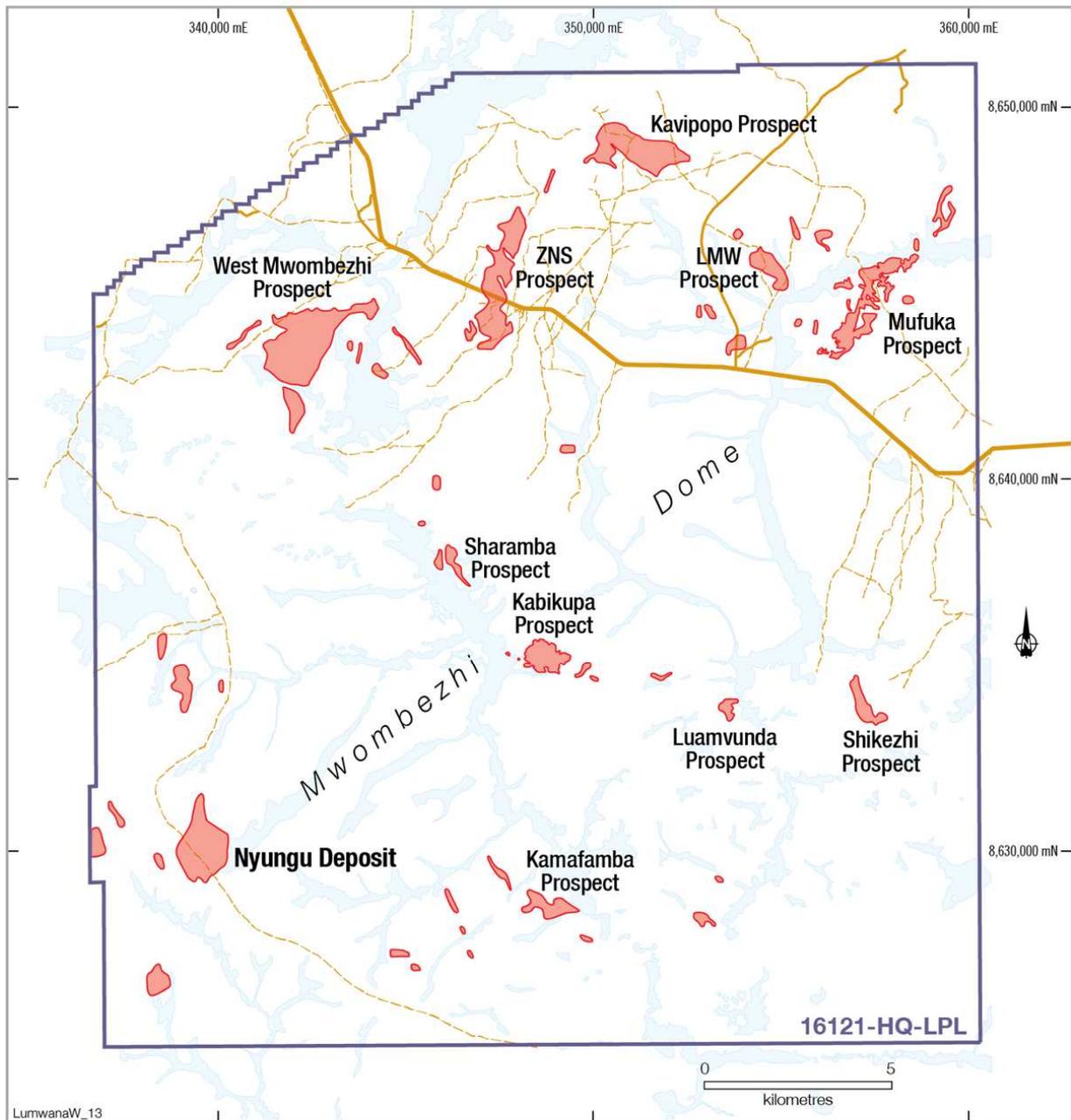


Location



- Katanga (conglomerate, quartzite, argillite, arkose, shale, greywacke, dolomite, banded iron fm, mixitite, limestone & schist)
- Pre-Katanga (schist, gneiss & granulite) & Basement Complex (granite, gneiss, migmatite, & granite)
- Licence boundary

Argonaut, via its 90%-held subsidiary, Mwombezhi Resources Ltd, has intercepted broad copper and cobalt intercepts at the Nyungu deposit and has defined a series of large, prospective targets that have now undergone first-pass drill testing.



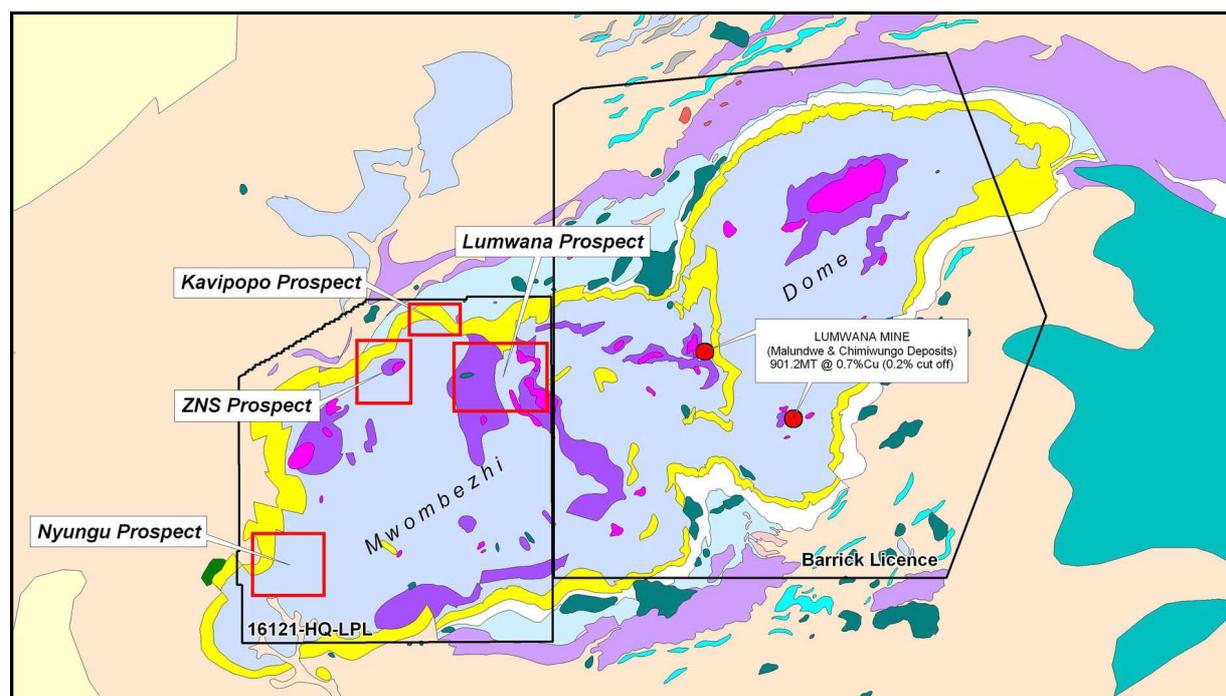
Location



- Licence boundary
- Drainage path (Dambo)
- Road
- Track
- Prospect (+40ppm Cu soil sampling)

Regional Geology

The Mwombezhi Dome is located in the western extension of the Lufilian Arc which is host to the Central African Copperbelt. The Mwombezhi Dome is comprised of two northeast-southwest trending basement inliers, and is one of several domes in an area of the Copperbelt known as the 'Domes Region'.



The Domes Region is host to the aforementioned Lumwana Mine of Barrick on the eastern lobe of the Mwombezhi Dome and First Quantum's Kansashi Mine and Trident Deposits.

The Lumwana West licence area covers numerous prospects, as defined by regional soil geochemistry. The Nyungu prospect was selected by Argonaut as the first area for intensive investigation.

The primary target at Lumwana West is shear-hosted copper mineralisation associated with cobalt and gold. The company's 2011 drilling tested Induced Polarisation (IP) chargeability anomalies associated with a demagnetised, north-south shear-zone. The Nyungu shear-zone is offset by faulting in several places and extends over a strike length of approximately 13 kilometres.

Cobalt Perspectives

In the white-hot phase of the Cobalt boom in 2017, the company announced that it was planning follow-up drilling at the Nyungu deposit to increase cobalt and copper tonnages. The problem though is that Zambia has always had to compete with Torrens for attention and funding.

The reappearance of Torrens in 2018 as a prospectively exciting project pushed Zambia once again into

second place.

The prospectivity of the Zambian assets for Cobalt is undoubted as drilling had already defined an exploration target of between 12,000 and 24,000 tonnes of contained cobalt at a grade of 0.08% to 0.12% cobalt. But as Cobalt was not specifically targeted during previous campaigns, the company feels that scope exists for a meaningful upgrade of Cobalt tonnages and grades.

Of the 48 drill holes completed at Nyungu targeting copper, 10 intersected significant cobalt mineralisation. The peak cobalt result from diamond drilling (in 2011 and 2012) was 81.5 metres at 0.12% cobalt from 183 metres, including 23 metres at 0.21% cobalt.

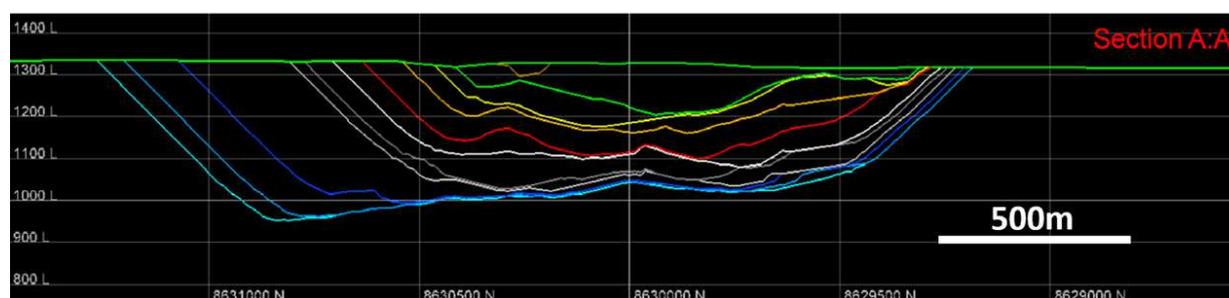
Hole	From (m)	Interval (m)	Co (%)	Cu (%)
NYU11RD001	37	120.0	0.06	0.34
including	104	26.0	0.13	0.28
NYU11RD010	155	72.0	0.08	0.61
including	167	38.0	0.10	0.91
NYU11RD013	31	1.0	0.56	0.57
NYU11RD022	12	88.2	0.07	0.47
including	42	10.0	0.19	0.61
NYRD031	236	59.9	0.07	0.50
including	237	22.0	0.13	0.58
NYRD038	258	29.0	0.12	0.55
including	259	21.0	0.16	0.57
NYRD044	181.5	12.2	0.10	0.18
including	186.8	6.0	0.16	0.24
NYRD045	38.5	69.0	0.06	0.58
including	93	8.0	0.11	0.29
NYRD046	183.4	81.5	0.12	0.71
including	218.5	23.0	0.21	0.51
MM296	88	53.0	0.05	0.30
including	90	12.0	0.13	0.50

In 2018 the company was talking about a program of shallow drilling with the potential to significantly upgrade copper and copper-cobalt mineralisation in the oxide and transitional zones. Much of the cobalt produced in the DRC is mined from cobalt oxide deposits. In management's view Cobalt oxide deposits are particularly interesting due to potential low-cost, short lead-time processing options.

Copper and cobalt at Nyungu is contained within three weathering zones: oxidised, transitional (mixed oxide and sulphide), and fresh (sulphide) with demonstrated metallurgical opportunities for production. The company planned to target these zones for drilling that will provide both resource estimation data and metallurgical sample for dense media separation and leach test work.

The Mining Study

In early 2017, RungePincockMinarco (RPM) conducted a preliminary open-pit optimisation study on the Nyungu Central and Nyungu South deposits.



The modelling was conducted for copper production only using costs from similar mines. The results were highly encouraging.

Modelling shows favorable deposit geometry via a very low stripping ratio:

- stripping ratio of 1.5 to 1 for the optimum pit at the current copper price
- stripping ratio of 2.3 to 1 to a depth of >300m at 150% of the current copper price, indicating the deposit has a low sensitivity to stripping ratio

RPM concluded the project had economic potential and warranted further studies.

Current Work Plans

With funds still ringfenced for Torrens (for when it comes back to life) the amount allocated to Zambia is modest indeed. Argonaut presently has around \$120k set aside for continuing Nyungu metallurgy.

This metallurgy is ongoing. The company has been granted three new exploration licences and is waiting on a fourth to become available later this year. Once the fourth exploration licence is granted, the company will immediately start a confirmatory soil sampling and recon mapping program (of around one month employing an XRF) which will take the team up until the end of the dry season.

Management would look to gain drilling approvals in Nov/Dec 2019 and start RC drilling on commencement of the dry season in May 2020.

The Divorce with Antofagasta

In February 2017, Argonaut announced it had reached an agreement to acquire a 25% interest in the Nyungu copper-cobalt deposit from a subsidiary of Antofagasta plc, increasing Argonaut's interest to 90%.

In exchange for Antofagasta's 25% beneficial interest in the Lumwana West project, Argonaut made the following commitments:

- To pay Antofagasta US\$1,000,000 on the commencement of a feasibility study; and
- on development decision
 - pay Antofagasta US\$3,000,000; and
 - grant Antofagasta a 1.5% net smelter royalty on production.

Additionally:

- Argonaut will have the right to buy the net smelter royalty from Antofagasta for US\$4,000,000 and
- Argonaut will pay Antofagasta 25% of any sale proceeds in the event the project is divested

While the buyback did not cost Argonaut anything in the short term it is rather generous to a retreating earn-in partner. Antofagasta more than earns back its investment on this adventure.

Spin-out and a London Listing?

As the main market for interest in African mining is London it seems a no-brainer for Argonaut to spin-out the Zambian interests and, at least, have a secondary listing for this new entity here. It may also be sensible to actually domicile the company in the UK and seek a secondary listing on the ASX. In either case the entity would be able to develop a life of its own and find a funding source for development in a more sympathetic market.

Zambia – Own Goal?

In the long tradition of African countries bringing in measures without thinking of the consequences Zambia has recently made a good imitation of shooting itself in the foot.

Zambia proposed changes in its 2019 budget including royalty rate increases, a 15% gold export duty, an import duty on concentrates and a likely replacement of value-added tax with a sales tax, to shore up the country's finances. As is customary this likely results in lower, rather than higher, tax revenues.

First Quantum commented on these changes stating that, mineral royalties would cease to be deductible from corporate income tax. Also, the yet-to-be-quantified sales tax, could mean that

companies could not reclaim tax on input purchases, which would be most damaging to local Zambian mine suppliers.

As with all things African, this too shall pass. The reality of Zambia's dependence upon copper will prevail. We have no doubt that by the time the Zambian project is in a position to start producing these current travails will be but a memory.

Risks

The risks for the copper space in general are:

- The copper price may remain in the doldrums between \$2.50-\$3 per lb
- Cobalt might return to lower levels
- Financing remains difficult in the copper space
- Zambian political risk
- Specific measures disadvantaging Cobalt miners to benefit Chinese freebooters

The copper market was on the move in 2018 and then fell back quite substantially; losing more ground in recent weeks on the "trade war" fears. The slack price environment currently stymies investment in exploration but a backlog of undeveloped copper projects exists from earlier times. Copper will inevitably turn up and the hope is that insufficient projects will be developed to satisfy demand, thus extending the cycle and making a takeout of good projects very likely.

The Cobalt boomlet of 2017-18 produced a lot of wannabes and virtually no gonnabes. Production from (or development of) new projects is almost non-existent. So if even part of the optimistic projections of that time as related to EV demand comes to pass then insufficient product is available and prices will return to a steep upward price path. Fading Cobalt remains one of the weakest fears.

Financing is dire today and the recent Copper price retreat has compounded this factor.

Politics is always a concern in Africa as taxation and royalty policies can "turn on a dime". Economic reality almost always wins eventually but it can take a while to happen.

The Chinese have shown themselves to be adept at targeting other companies' assets and then politicking to get them redistributed in their direction. Africa is the last frontier for this type of predatory activity, so it can never be ruled out.

Conclusion

The merits of having a second string to the bow were fully justified when Argonaut became seriously wounded due to the inadequacies of its partner's drilling "strategy" at Torrens. If all else fails there is Zambia! As we mused aloud at our first encounter with the company in 2017, the move to list Zambia separately is not exactly a stroke of genius but a natural and logical progression.

Focus should switch to putting Zambia in shape for the next stage of the company's (and asset's) evolution. With cash at AUD\$2.4mn and most of that allocated to the Torrens project, Zambia can only be worked on in a minor way until it is separately funded. The market doesn't like earn-ins that divert the ultimate gravy away from Argonaut shareholders. So Argonaut has to make a convincing argument to shareholders on how it will realise value from Zambia. For us, unless a near term miracle happens for the Torrens project, demerger is the only way forward to get Zambia back on the fast-track.

We added a **Long** position in Argonaut to the Model Mining Portfolio in late 2018 and our revised 12-month target price is now AUD 2.5 cents.



Important disclosures

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