

# OAK Securities

## Rome Resources

### Exciting Tin Discoveries Hoping to Rival Alphamin



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# Rome Resources

## Tin Play Seeking to Rival £1 bn Alphamin

Rome Resources is currently drilling to define a maiden resource on the Bisie North Tin Project, located in the Democratic Republic of Congo (DRC). The Bisie North Project is a pre-resource exploration stage project.

The Project is exciting given its proximity to Alphamin and the fact that it is led by Alphamin's initial discovery team.

### Alphamin Resources

Alphamin's Mpama North is the world's highest-grade tin mine, accounting for 4% of the world's tin supply. Rome's soil anomaly is larger than the original Mpama anomaly. Alphamin has a market cap of C\$1.6 bn.

### 8 km From Alphamin

Bisie North Tin contains two parallel tin-in-soil anomalies that cover a total strike of 3 km. Bisie is located in the same geological setting as, and just 8 km northwest of, Alphamin's Mpama North and South Tin Mines.

### Initial Drilling Discoveries

Initial drilling of both anomalies at the Bisie North Tin Project has demonstrated the presence of two significant tin deposits. Further drilling is underway to expand the scale of defined mineralisation at each deposit.

### Alphamin's Former Team

Rome's team includes Alphamin's Founder Klaus Eckhof and others responsible for the discovery of Mpama North and 3 other DRC deposits, giving it a proven track record of discovering and selling successful mines in the DRC.

### Current work Programme

A 3,000 m follow-up drill programme at both the Kalayi and Mont Agoma Permits is underway. As of mid-October, 1,336 m of drilling had been completed, 1,001 m on Kalayi and 335 m on Mont Agoma. Initial visual descriptions of the drilling to date and portable Niton XRF analyses have all been positive, driving the share price 20% up from its RTO price of 3.0 p per share to over 3.6p per share.

Four diamond drill rigs are currently on site after a third drill rig was added in early September and a fourth in October as Rome ramps up its activities.

The samples from the first 2-3 holes have been dispatched to the laboratory and initial assay results are expected within the next two weeks, with regular results expected to follow after.

This exploration work is building towards a maiden resource estimate for the project, which is likely to be early in the new year.

### Rome Resources PLC (AIM: RMR)

Share Price

**0.38 p/share**

Market Cap

**£18.9 m**

Total Shares in Issue

**4,871.9 m**

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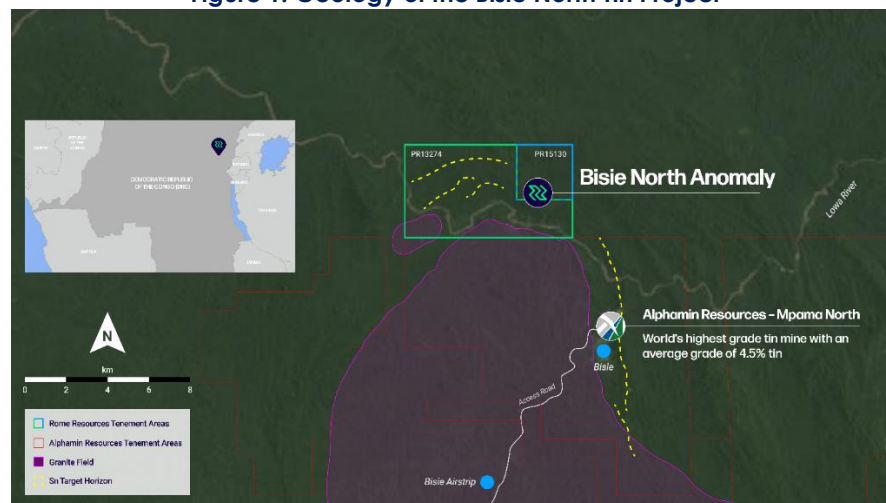
## The Bisie North Tin Project

Bisie North Tin Project is located in Walikale Territory of the North Kivu Province in the Democratic Republic of the Congo (Figure 1). It is comprised of two contiguous exploration permits, Kalayi (PEPM 13274) and Mont Agoma (PR 15130), which together cover 38.43 km<sup>2</sup>.

The central portion of the permit area is dominated by a sequence of metamorphic rocks - mica schists, quartzites and phyllites, that have been folded around the northern edge of a granite pluton, the latter developed to the south of the Oso River and believed to be the source of the mineralising fluids. The mineralisation is developed in a series of quartz-veined shear zones and cassiterite (tin) veinlets at Kalayi and within a 200m wide polymetallic (tin, copper, lead, zinc and silver) sulphide zone within alternating sericite/chlorite schists and mafic volcanic schists at Mont Agoma.

Kalayi and Mont Agoma lie within the same geological and mineralised setting as Alphamin's Mpama deposits.

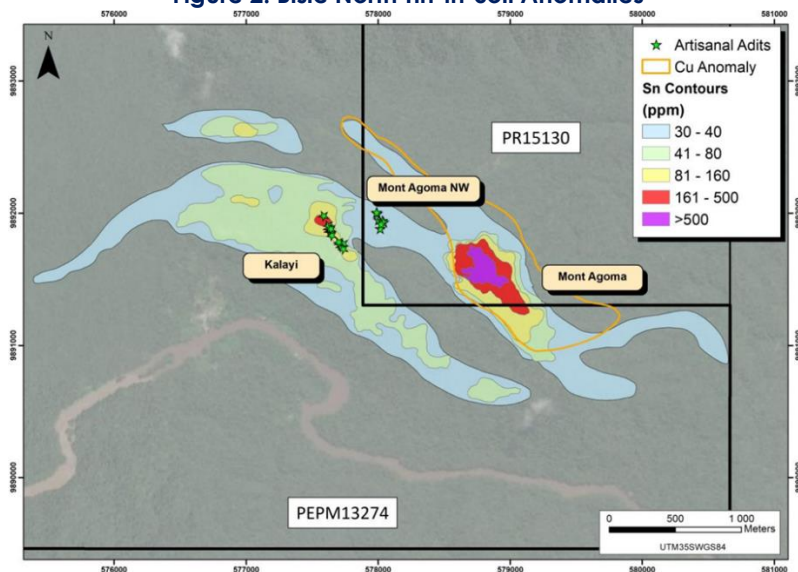
**Figure 1: Geology of the Bisie North Tin Project**



Source: Rome Resources, host structures (yellow) wrap around the granitic source

Located across the boundaries of the two exploration permits are two sub-parallel tin-in-soil anomalies that cover a total strike of >3,000 m (Figures 2).

**Figure 2: Bisie North Tin-in-Soil Anomalies**



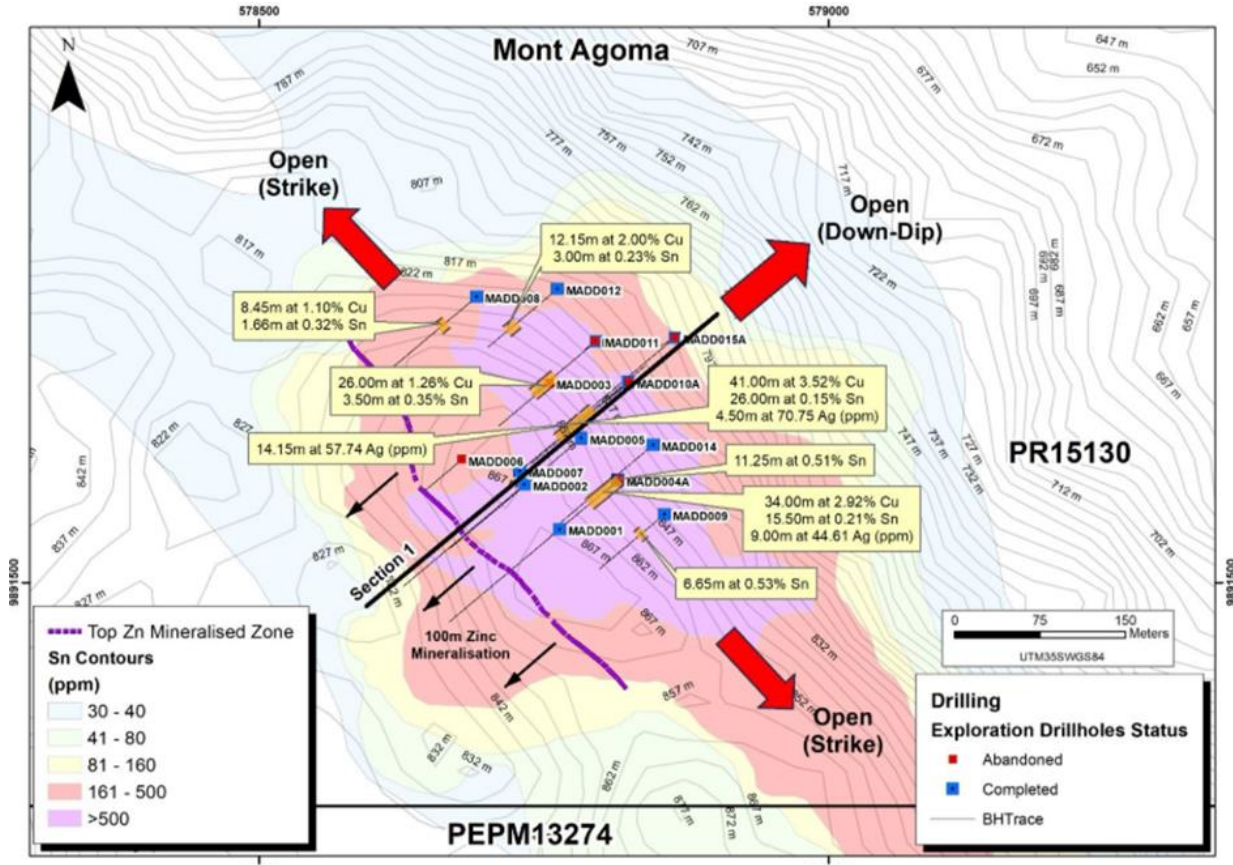
Source: Rome Resources



### Mont Agoma Permit

At Mont Agoma, a 1,000 m tin-in-soil anomaly (>80 ppm) has been defined. In 2023, 15 drill holes were completed into the anomaly at Mont Agoma totalling 2,938 m, this drilling has defined multiple mineralised shear zones over a 300 m section of the anomaly (Figures 3 & 4). An additional 335m have been completed at Mount Agoma as part of the ongoing drill programme.

Figure 3: Map of Mont Agoma Drill Results



Source: Rome Resources

### Assay results from 2023 drill programme

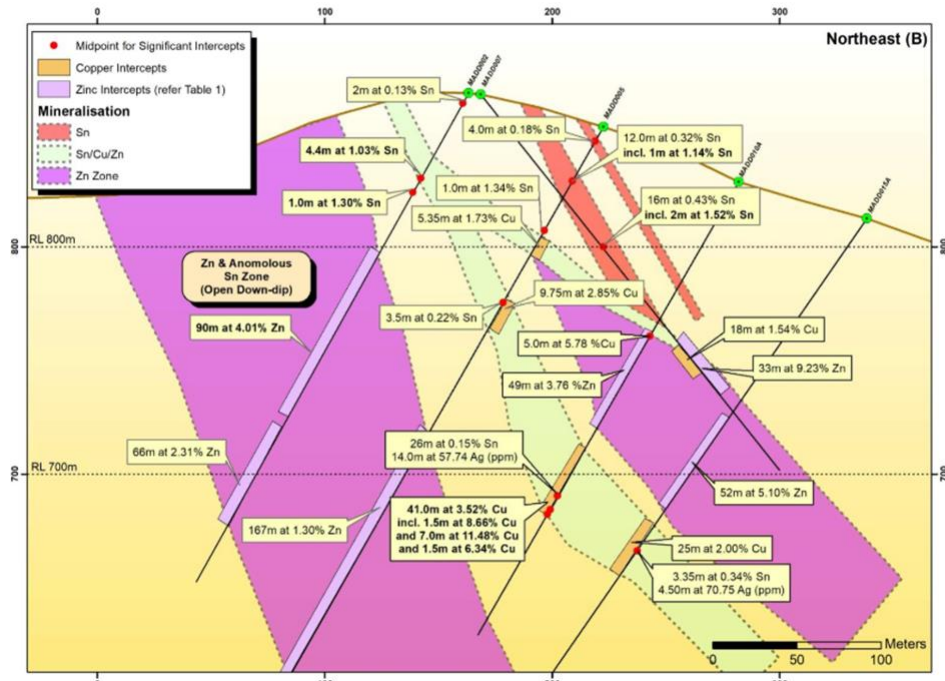
A western shear zone that contains intensive zinc and anomalous tin mineralisation over circa 160 m downhole length with associated chlorite alteration. The western shear zone results include:

- 160.5 m at an average grade of 3.3% Zn from 77.5 m; including 30.6 m at an average grade of 7.28% Zn from 129.4 m (MADD002)
- 167 m at an average grade of 1.3% Zn from 114 m (MADD005)

The eastern shear zone is more polymetallic with a low-grade tin to the east moving into higher-grade zinc and copper mineralisation with additional lead, arsenic and zircon. Assay results from the eastern shear zone include:

- 11.25 m at an average grade of 0.51% Sn from 5.75 m; including 2.25 m at an average grade of 1.06% Sn from 5.75 m (MADD004)
- 49 m at an average grade of 3.76% Zn from 76 m (MADD010A)
- 52 m at an average grade of 5.10% Zn from 110 m (MADD015A)
- 41 m at an average grade of 3.52% Cu from 139 m; including 13.15 m at an average grade of 7.8% Cu from 143.85 m (MADD010A)
- 25 m at an average grade of 1.96% Cu from 167 m; including 16 m at an average grade of 2.56% Cu from 174 m (MADD015A)

Figure 4: Cross Section of Mont Agoma Drill Results



Source: Rome Resources

#### Visual descriptions from the current drill programme:

##### MADD016A:

- 67 m zone containing tin, copper and zinc between at 47 m and 113 m. Copper mineralisation was also present in discrete intervals within this tin-polymetallic zone and additionally in several intervals below the tin zone to 220 m. Early indications are that tin mineralisation (visible cassiterite – tin, as confirmed by the Niton handheld XRF analyser) is increasing towards the granite source and at depth towards the southeast.

##### MADD017:

- Several tin-bearing intervals with cassiterite veins between 117 m and 140 m were intersected clearly show an increase in cassiterite roughly 50m below the intersection in MADD016A. A copper zone was encountered between 98 m and 113 m. Drilling is currently at 143 m depth in the tin, copper and zinc zone.

##### MADD018:

- Is currently drilling above the anticipated mineralised zone at 27 m.

#### Style of Mineralisation

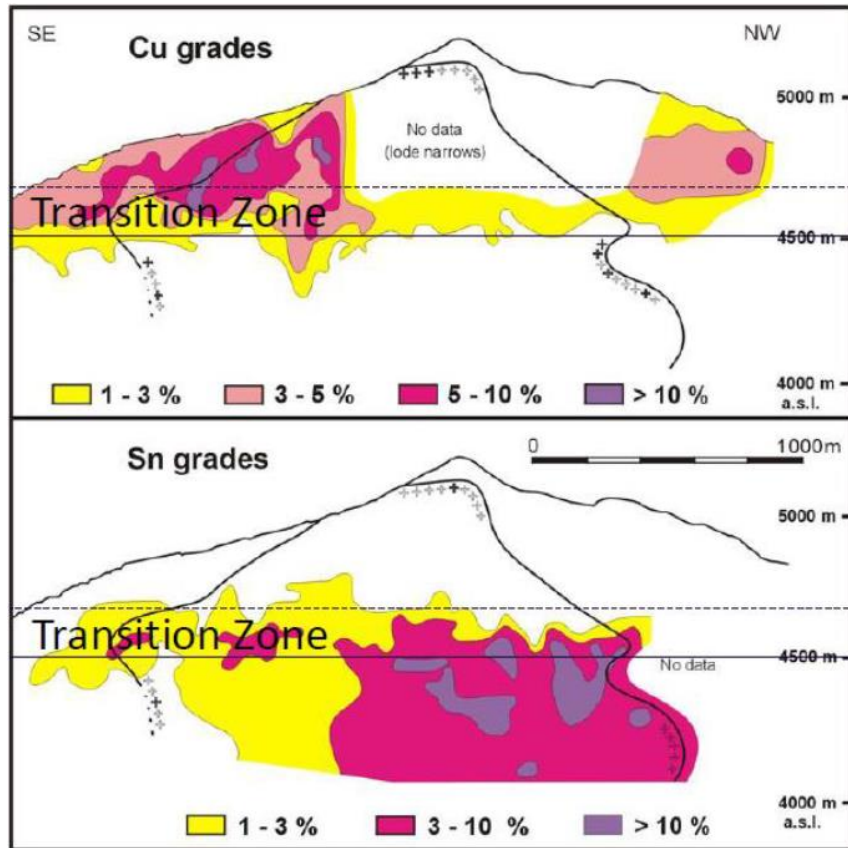
The polymetallic mineralisation at Mont Agoma is present as thick bands and anastomosing veinlets of semi-massive to massive sulphides over intervals of several metres to tens of metres. The mineralisation occurs within variably chloritised mica-quartz schists and mafic volcanic schists similar to the host rock at Alphamin's Mpama North and South deposits.

The tin at Mpama is hosted with 20-40m thick mafic volcanic schists whereas the mafic volcanics at Bisie North are in excess of 70m with potential to host significantly broader intervals of tin mineralisation.

Rome believes that the eastern shear zone has the best potential to host significant tin mineralisation, being assessed in the current drill programme. The polymetallic mineralisation to the east remains open to the northwest, southeast and down dip (Figure 3).

Rome believes that this style of mineralisation at Mont Agoma, is similar to that of Mpama North and South and the San Rafael Mine, located in Peru, with high-grade copper and base metals from surface and tin mineralisation located at deeper levels (Figure 5).

Figure 5: Long Section of the San Rafael Deposit



Source: Rome Resources

### Kalayi Permit

At the Kalayi Permit, a 2,000 m tin-in-soil anomaly (>50 ppm), associated with a series of abandoned artisanal workings, has been defined. The cassiterite (tin mineralisation) is associated with irregularly developed quartz vein sets that dip vertically or steeply towards the northeast. The individual veins have a maximum thickness of one metre and form parallel vein sets of up to 20 m wide.

Four diamond drill holes were completed at Kalayi in 2023 totalling 463.5 m (Figure 6). These drill holes tested a 150 m section of the 2,000 m long anomaly and the results defined multiple steeply dipping parallel zones of tin mineralisation (Figure 7), similar to the style of tin mineralisation at Alphamin's Mpama Mines. In the current drill programme, a further 1,001 m has been completed at Kalayi with assay results pending, initial visual descriptions and Niton XRF analyses of the samples are positive and described below.

Current drilling is designed to test 600m of the tin in soil anomaly which is open for a further 1,000m to the west and 800m to the southeast as shown by the dashed red lines in Figure 6.

### Assay results from 2023 holes include:

#### KBDD003:

- 12.5 m at an average grade of 1.06% Sn from 40.5 m; including 1.0 m at an average grade of 2.78% Sn from 43.5 m, 2.5 m at an average grade of 3.39% Sn from 50.0 m & 0.5 m at an average grade of 11.7% Sn from 51.5 m.
- 1.0 m at an average grade of 1.11% Sn from 59 m
- 3.0 m at an average grade of 1.92% Sn from 70.0 m; including 0.4 m at an average grade of 12.85% Sn from 70.7 m

#### KBDD002:

- 0.8 m at an average grade of 1.32% Sn from 30.6 m
- 2.5 m at an average grade of 2.60% Sn from 79.0 m; including 0.5 m at an average grade of 7.15% Sn from 80 m

#### KBDD001:

- 0.8 m at an average grade of 0.17% Sn from 53.0m

### Visual descriptions and XRF analysis from the current drill programme:

#### KBDD005:

- 1.5 m with a maximum grade of 3.1% Sn, from a high-grade zone

#### KBDD006:

- 10 m with a maximum grade of 5.3% Sn
- 8 m with a maximum grade of 0.5% Sn

#### KBDD007:

- Intersected a narrow zone of near-surface tin mineralisation, representing the expected pinch and swelling of the vein

#### KBDD009 & 10:

- Cassiterite was intersected over 6m and 3m respectively below KBDD006 and confirmed mineralisation down to 130 m below surface as shown in Figure 8.

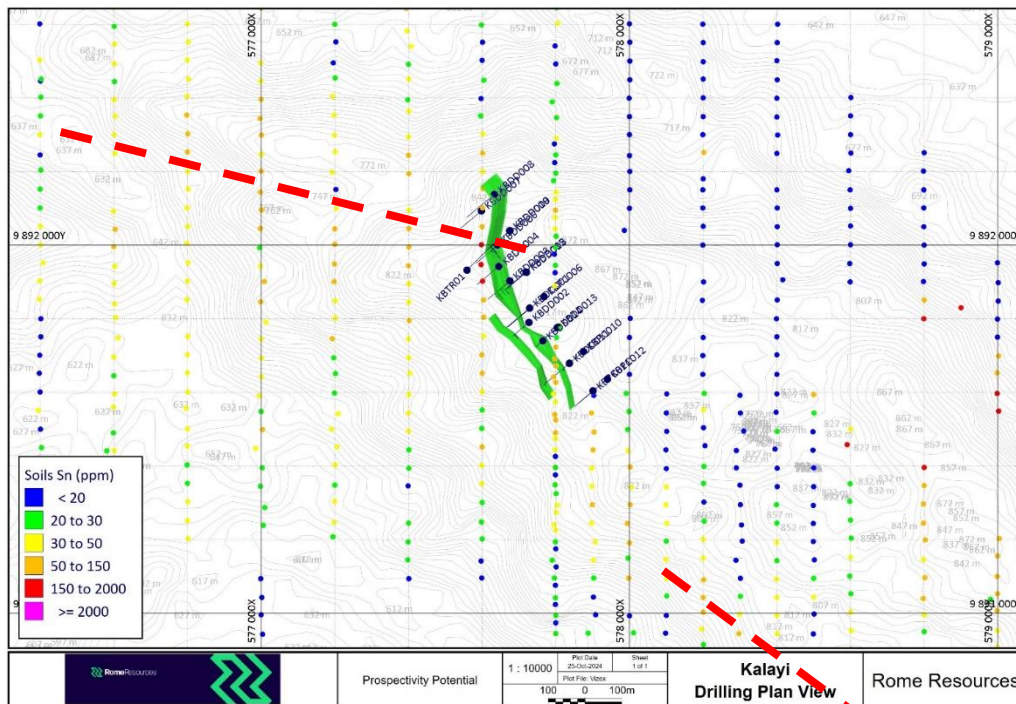
### Style of Mineralisation

Cassiterite is the dominant tin mineral found in shear-related quartz veins, it does not appear to be associated with copper or other base metals.

Rome believes that the high-grade intercepts within the broader zones of lower-grade tin mineralisation suggest the potential for zones of substantial width and grade at depth and on strike due to the pinch and swell nature of mineralisation associated with quartz veins and shearing.

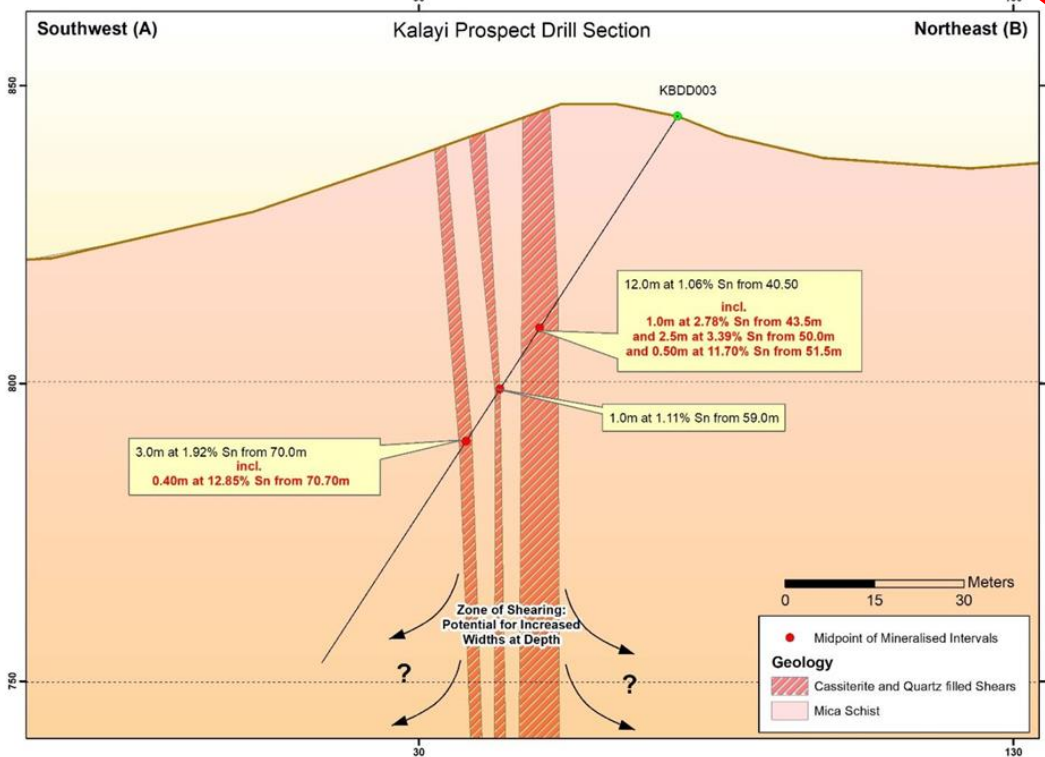


Figure 6: Kalayi Tin-in-Soil Anomaly



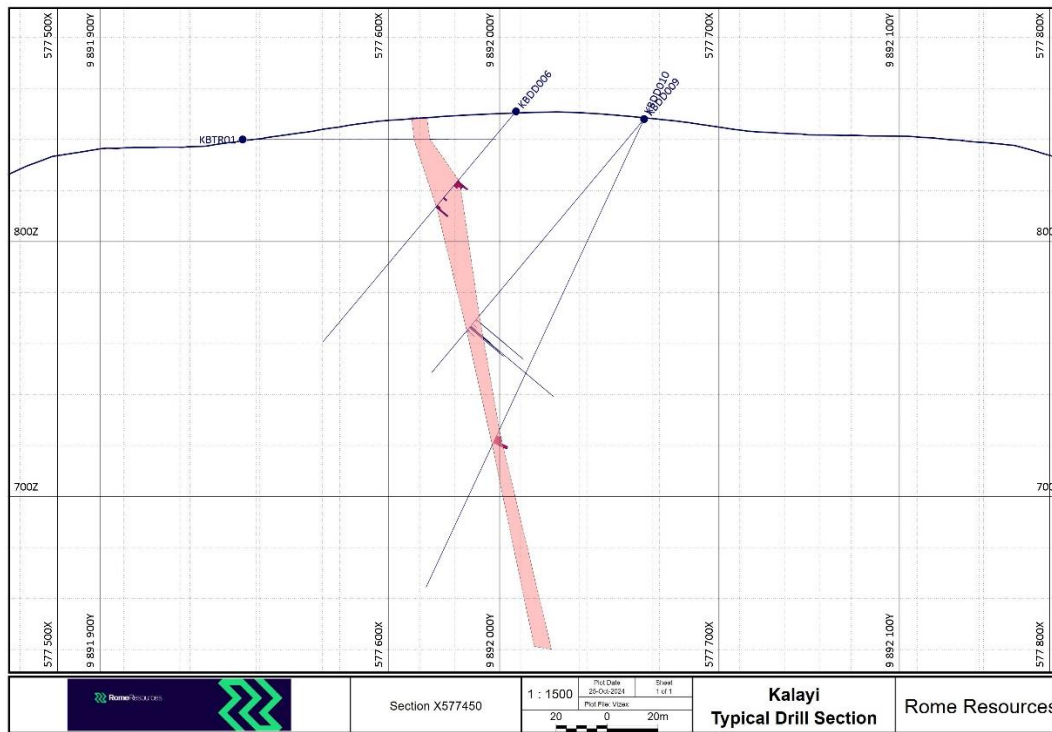
Source: Rome Resources

Figure 7: Cross Section of Kalayi Drill Results (2023 Campaign)



Source: Rome Resources

**Figure 8: Cross Section of Kalayi Visual and Niton Drill Results (2024 Campaign)**



Source: Rome Resources

**Option Agreement to Increase Interest in Bisie North**

Rome has signed agreements to potentially increase its interest in the Bisie North Project, from 51% to up to 75%. This would be a related party agreement as certain Directors of Rome are the vendors of the interests. An additional interest of 9%-10% can be acquired from the vendors under revised terms currently under discussion.

## Comparable Deposit Styles

### The Mpama North and South Tin Mines

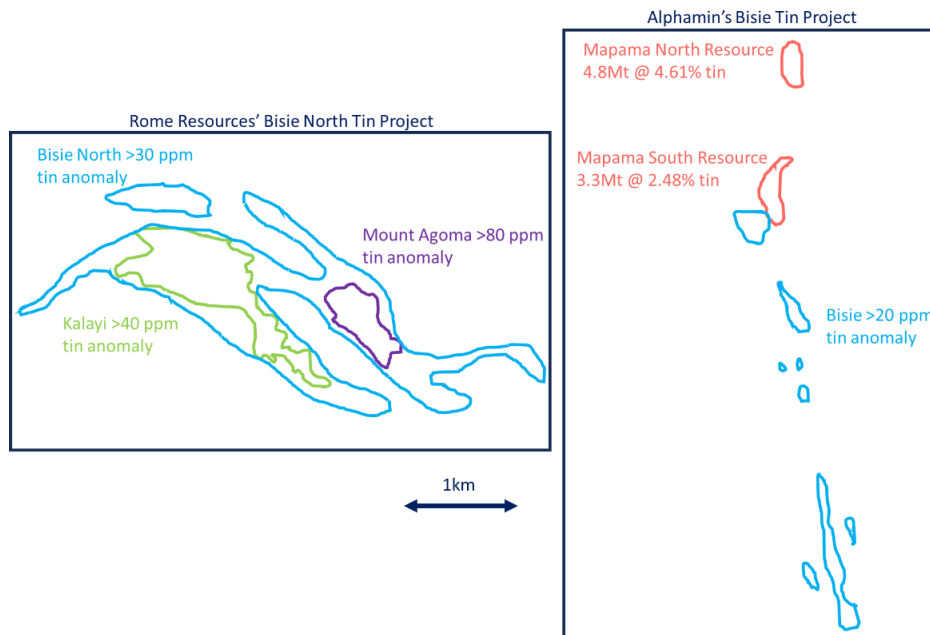
The Mpama North Tin Mine, owned by Alphamin Resources, is located 8km along trend from the Rome project in the DRC and has been operational since 2019. The Mpama North Mine has a total Measured and Indicated Resource Estimate of 4.32 Mt at an average grade of 4.61% Sn and an Inferred Resource of 0.48 Mt at an average grade of 4.57% Sn. The Mpama South Mine has an Indicated Resource of 0.83 Mt at a grade of 2.58% Sn and an Inferred Resource of 1.95 Mt at a grade of 2.45% Sn.

In 2023 the mine produced 12,500 t of tin, generated revenue of US\$288.5 million and an operating profit of US\$105 million. Alphamin is currently commissioning an expansion project at Mpama South that will see production levels increase to 20,000 t per annum, at which point the combined output will account for 7% of the world's tin production.

During the financial quarter, March 2024, the Mpama North Tin Mine had an all-in sustaining cost (AISC) of US\$14,858/t and achieved an average tin price of US\$26,863/t giving the operation a margin of 55%. These metrics demonstrate the robust economics that tin projects can generate in this part of the DRC.

Rome believes that the mineralisation at Kalayi is similar in style to that of Mpama. Interestingly the 2,000 m long >40 ppm tin-in-soil anomaly at Kalayi and a 1,000 m long >80 ppm tin-in-soil anomaly at Mont Agoma compare favourably to Alphamin's initial, >20 ppm, tin-in-soil anomalies which occurred intermittently over a strike of c. 4,000 m (Figure 9).

**Figure 9: Bisie North and Bisie Tin Anomalies (both at the same scale)**



Source: MMRC, compiled from Rome Resource and Alphamin

### The San Rafael Tin Mine

The San Rafael Mine, owned by Minsur, is located in Peru and is the third largest tin producer worldwide, it currently produces around 12% of the world's tin, with 25,329 t produced in 2023. Despite having been in continuous production for over 44 years, the mine still has reserves of over 131,400 t of contained tin.

The underground operation generated around US\$656.9 million in revenue in 2023 and achieved a margin of 63% on a cash cost of US\$9,431/t. Rome believes that Mont Agoma has the potential to host a similar style of mineralisation to San Rafael at depth.

## Management's Track Record in DRC Discoveries

Rome Resources management team have a track record of discovery in the DRC that is unmatched by any other exploration junior, having been involved with four major discoveries, three of which became significant mines and one that is poised for development but currently subject to international arbitration. An impressive pedigree that has seen discoveries in tin, gold, lithium and copper, these discoveries include:

### **Mpama North Tin Mine**

Rome's management identified and secured the Bisie Tin Project, which was renamed Mpama North, in 2012. They defined the original geochemical anomaly and drilled the target making the original discovery. They then secured Denham Capital as a strategic investor and then exited in 2020. The mine was subsequently brought into production for US\$152 million. In 2023 the mine (Figure 10) produced 12,500 t of tin, generated revenue of US\$288.5 million and an operating profit of US\$105 million.

### **Kibali Gold Mine**

Rome's management founded Moto Goldmines, secured ownership of the Moto Gold Project, which was renamed Kibali, made the original discovery, advanced the project through resource and reserve definition, and then sold it to Randgold Resources for US\$500 million in 2009. Gold production commenced in 2013, and in 2023 the mine (Figure 10) produced 343,000 oz of gold, making it one of Africa's largest gold mines, generating revenue of around US\$665.7 million and an operating profit of around US\$247 million.

### **Kipoi Copper Mine**

The same team founded Tiger Resources and went on to discover the Kipoi Copper Mine in 2008. The mine (Figure 10) went into production between 2011 and 2020 but went into administration following the suspension of operations during the COVID-19 pandemic when it was unable to pay its creditors. In 2018 the mine produced 19,199 t of copper cathode and generated US\$123.6 million in revenue and an operating profit of US\$26.2 million.

### **Manono Lithium-Tin Project**

More recently, Rome's management team secured and vended the Manono Lithium Project to AVZ Minerals in 2017. AVZ completed a definitive feasibility study of the project (Figure 10) in 2020, and it is currently the subject of international arbitration. The DFS defined a post-tax NPV of US\$1028 million based on the production of 547,000 t of spodumene concentrate, 45,700 t of lithium sulphate and 828 t of tin. This is forecast to generate an average annual revenue of US\$765 million and an average annual EBITDA of US\$380 million.



Figure 10: Mpama North Tin Mine, Kibali Gold Mine, Kipoi Copper Mine and Manono Lithium Project



Source: Mining Review Africa, Kibali Gold Mine, Tiger Resources and AVZ Minerals

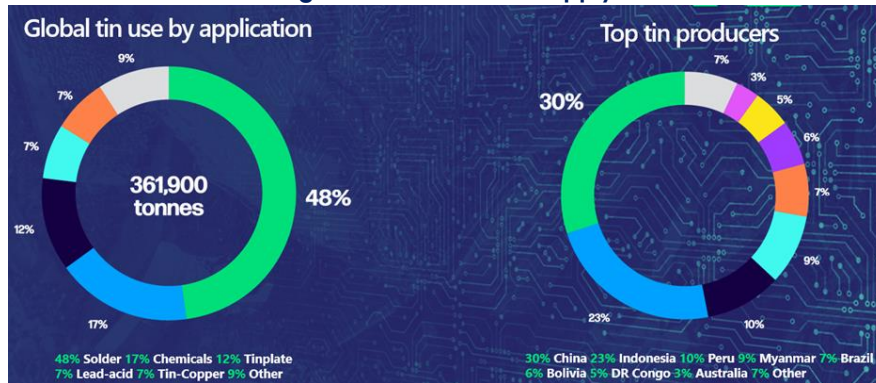


## Tin, a Critical Metal in the electronics sector

### Uses

Tin is traditionally used as a solder (Figure 11) but other important uses include chemicals, alloys, optoelectronics, and corrosion-resistant plating. The tin market for tin is shifting with increased demand from artificial intelligence, robotics, electric vehicles, and other green technologies such as solar power.

Figure 11: Tin Use and Supply



Source: Rome Resources

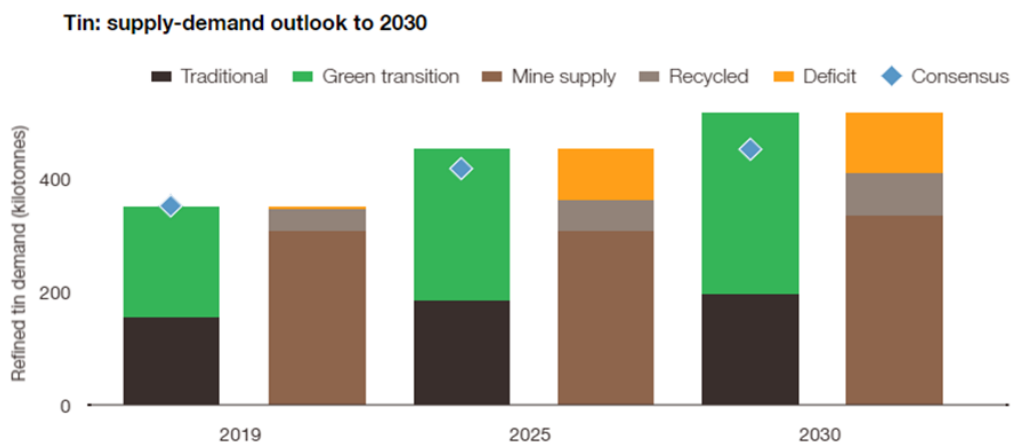
Around 93t of tin is consumed for every GW of installed solar power capacity. New solar installations are expected to increase by 98% from 444 GW in 2023 to 880 GW by 2032. As a result, this sector alone would drive an 11% increase in global tin demand.

### Supply/Demand

The tin market has been tightly balanced since 2019, but reduced production levels in 2023 and going forward towards 2025, are expected to see a bigger supply deficit open between 2025 and 2030 (Figure 12).

Major producers such as China, Myanmar, Indonesia & Peru (Figure 11), are seeing declining resources and are reducing production levels. Compared to other metals, such as copper there are a limited number of companies exploring and developing tin projects. Projects with higher-grade tin are even more limited.

Figure 12: Tin Supply and Demand



Sources: Roskill, "Tin: Outlook to 2029, July 2021; Bloomberg, December 2022; "WoodMackenzie, Tin – the forgotten foot soldier of the energy transition", April

Source: Roskill

## Tin Price

Since late 2022, tin prices have largely been in an uptrend rising 81% from US\$18,000/t in late October 2022 to its current level of US\$31,135/t (Figure 13). BMI, a Fitch Solutions company, forecasts prices to remain strong and on a firm uptrend, pushing as high as \$US37,000/t by 2033.



Source: LME

## Research Analyst Disclosures

### Dr Ryan D. Long BSc MSc MCSM PhD FGS

Ryan has over 15 years of experience in the mining and exploration sector. He has a strong technical background in geology, having worked on exploration to mining stage projects with leading mining companies such as Barrick Gold, Anglo American, and Xstrata.

He also has extensive knowledge and expertise in equity research analysis, having previously held roles with Edison Group and Northland Capital Partners.

He has published multiple scientific papers in international journals, holds a PhD in Economic Geology, and is a fellow of the Geological Society of London. He is also the founder of Junior Mining Insights, a mining and exploration-focused newsletter.

Mining and Metals Research Corporation Ltd. a company that Ryan D. Long is a Director of, and 50% shareholder in, holds 8,000,000 shares in Rome Resources.

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