

Corporate

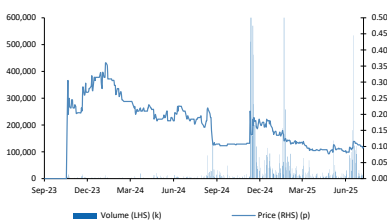
Current price **0.10p**

Sector **Mining**

Code **ROCK.L**

Listing **AIM**

Share Performance



% Change	1m	3m	12m
— ROCK.L	+18.2	+11.4	-55.6%

Source: Thomson Reuters, Allenby Capital

Share Data

Market Cap (£m) **6.4**

Shares in issue (m) **6,132.4**

52 weeks (p) **High** **Low**
0.22 **0.08**

Financial year end **31 December**

Source: Company Data, Allenby Capital

Key Shareholders

ACAM LP **16.31%**

TPM International **5.09%**

The Wonderful Group **5.02%**

Directors & Management **6.95%**

Source: Company Data, Allenby Capital

David Johnson

0203 394 2977

d.johnson@allenbycapital.com

www.allenbycapital.com

Rockfire Resources plc (ROCK.L)

Resource Upgrade Drilling Ahead of Feasibility Study

Recent exploration by Rockfire Resources plc's (ROCK.L) at the Molaoi Zinc-Lead-Silver-Germanium Project, located in Greece, has defined numerous regional targets that, with additional drilling, could expand the scale of the resource base well beyond its current level. Molaoi's existing resource base already makes the deposit one of the world's top 20 undeveloped zinc projects globally, despite the significant exploration potential. Rockfire is focused on moving the Molaoi Project into production rather than defining additional tonnes. Once in production, with cash flow being generated, the company plans to redeploy the cash generated to define additional resources and potentially expand the scale, or life, of the operation. With this in mind, Rockfire's upcoming drill programme is focused on infill drilling to decrease the drill spacing between holes so that the confidence level of the resource can be increased from inferred to indicated. An indicated resource base will give Rockfire the data required to feed into a feasibility study for an underground mine at Molaoi, which will be critical to securing the permits and funding required to commence construction at the project.

- **Drill Permit Imminent:** Rockfire is currently waiting for a revised drill permit from the authorities so it can commence the 30-hole infill drill programme. This is expected imminently.
- **Second Stage of Metallurgical Studies:** Alongside the drill programme, the company is also planning to commence the second phase of metallurgical studies for the project, which will also form a key component of the feasibility study.
- **Hydrometallurgical Germanium Recovery:** Part of these studies will focus on assessing the potential to use a range of hydrometallurgical processes to recover germanium from the zinc concentrate to produce a higher-value product stream.
- **Comminution studies:** The metallurgical work will also involve a more detailed assessment of the most favourable comminution flow sheet for the project, defining the number and type of crushers and grinders to be used and potential power requirements.
- **Feasibility Study:** With an indicated resource base and metallurgical studies in hand, Rockfire will be able to complete the feasibility studies, some workstreams for which are already underway. Publication of a feasibility study will be an important de-risking milestone for the company that will allow it to take the prep-production steps, such as permitting and securing development funding.

Year End: 31 December

(£'000)	2020	2021	2022	2023	2024
Revenue	0.0	0.0	0.0	0.0	0.0
Adj. EBITDA	(0.7)	(0.7)	(0.8)	(1.8)	(2.0)
Adj. PBT	(0.7)	(0.7)	(0.8)	(1.8)	(2.0)
Adj. EPS (p)	(0.10)	(0.08)	(0.06)	(0.10)	(0.07)
Net Cash	1.4	1.5	0.4	0.4	0.0
EV/EBITDA (x)	NEG	NEG	NEG	NEG	NEG
PER (x)	NEG	NEG	NEG	NEG	NEG

Source: Company; Allenby Capital. Allenby Capital acts as Nomad & Broker to Rockfire Resources plc (ROCK.L).

Please refer to the last page of this communication for all required disclosures and risk warnings.

Molaoi Zinc-Lead-Silver-Germanium Project

The Molaoi Zinc-Lead-Silver-Germanium Project is located in the Peloponnese Region of Greece.

The project has a JORC 2012 compliant inferred mineral resource estimate of 15.0 million tonnes (Mt) at an average grade of 9.96% zinc equivalent (ZnEq), with contained ZnEq of 1,500 kilo tonnes (Kt) centred on the Kalamaki Deposit.

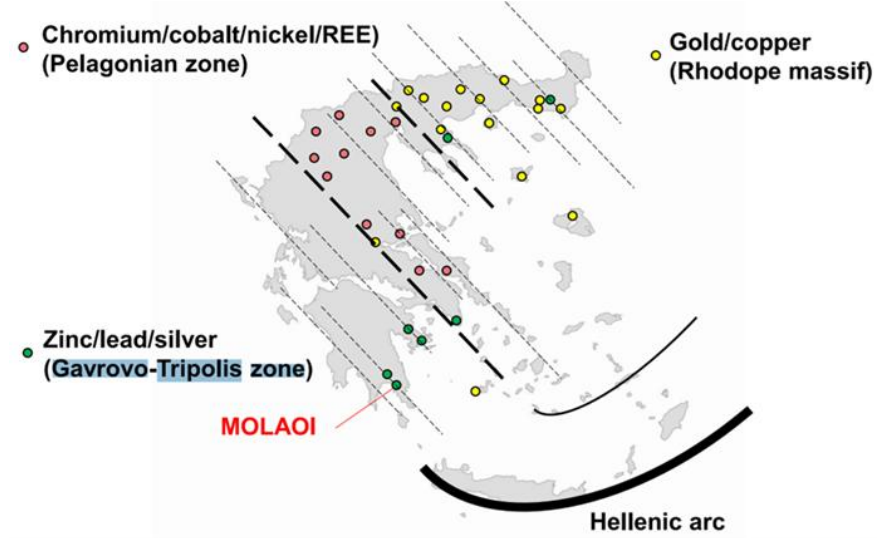
In addition, a non-compliant mineral quantity estimate of 4.8 Mt at an average grade of 21.9 grams per tonne (g/t) germanium, with contained germanium of 105,700 kilograms (Kg) has also been published.

Rockfire is funded to commence a follow-up drill programme to upgrade the category of the resource to indicated from inferred. Once the resource estimate has been upgraded, the Company will then be able to commence a feasibility study for the project to assess the project’s potential economic metrics.

Location

The Molaoi Project covers an area of 9.4Km² and is located in the Gavrovo-Tripolis Zone, a palaeogeographical area of sedimentary rocks, including shallow-water carbonates and volcanic rocks hosting zinc-lead-silver mineralisation across south and western Greece (Exhibit 1).

Exhibit 1: The Gavrovo-Tripolis Zone and Location of the Molaoi Zinc-Lead-Silver-Germanium Project



Source: Company

The 30-year licence exploration and mining permit that forms the project is held solely by Hellenic Minerals IKE, which is a wholly-owned subsidiary of Rockfire Resources.

Resource Estimate

To date, Rockfire has defined a JORC 2012-compliant Inferred Mineral Resource Estimate of 15.0Mt at an average grade of 7.26% Zn, 1.75% lead and 39.52g/t silver, for a ZnEq grade of 9.96% or 1,500Kt of contained ZnEq (Exhibit 2). This resource estimate is focused on the Kalamaki Deposit.

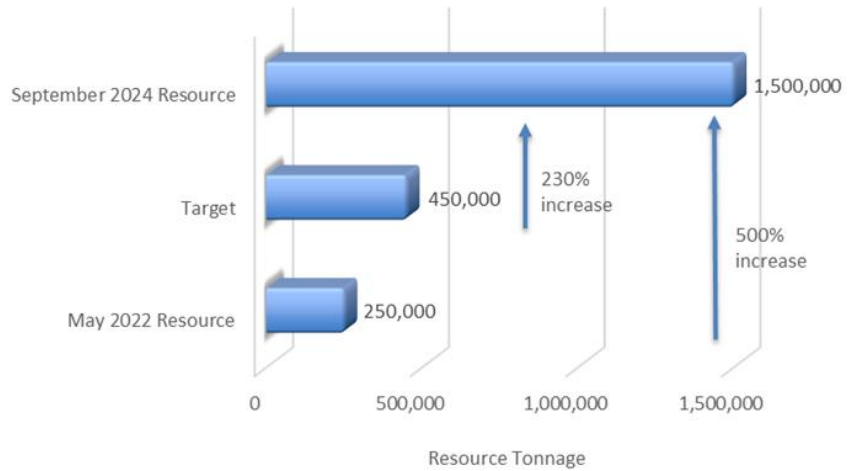
Exhibit 2: Kalamaki Mineral Resource Estimate

Molaoi - Zinc/lead/silver JORC Inferred Resources (8/2024) - OXIDISED + FRESH										
Density 2.7 t/m ³ In-situ material below surface - oxidised <40 m, fresh >40 m.										
Material	Zn cut-off	Tonnes (Mt)		Average grade					Material content	
				ZnEq ¹ (%)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	ZnEq ¹ (kt)	Zn (kt)
OXIDISED	4.0%	1.3	9%	10.61	8.19	1.37	0.02	40.69	140	110
FRESH	4.0%	13.7	91%	9.90	7.17	1.79	0.03	39.40	1,350	980
ALL	4.0%	15.0		9.96	7.26	1.75	0.03	39.52	1,500	1,090

Source: Company

The updated resource estimate was a 500% increase on the May 2022 resource and a 230% increase on the company’s upper exploration target, demonstrating the significant scale of the resource expansion (Exhibit 3). This dramatic increase in the scale of the resource base has put Molaoi within the top 20 undeveloped zinc projects globally in terms of both contained ZnEq and ZnEq grades.

Exhibit 3: Percentage Change in Resource Base



Source: Company

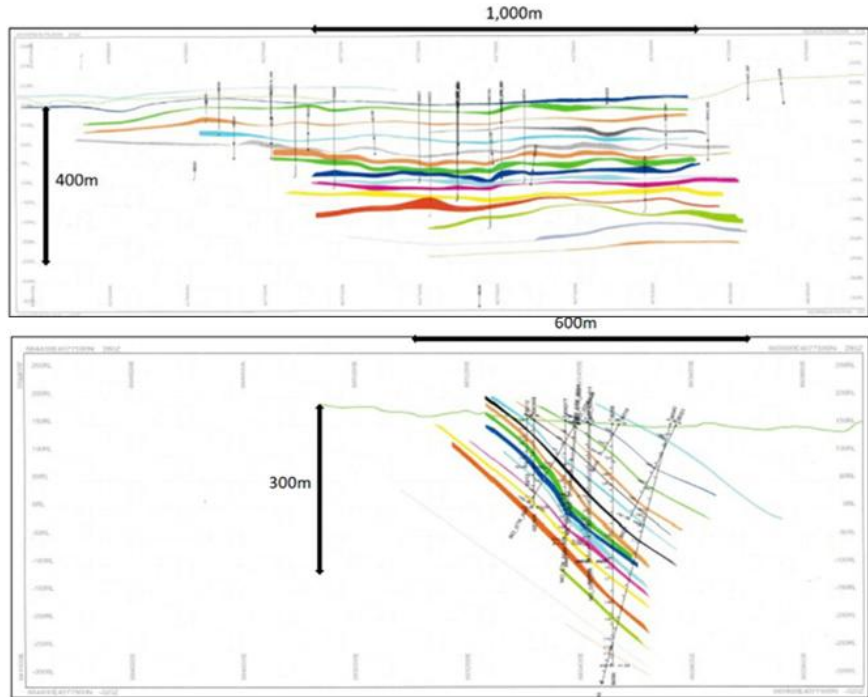
Of the resource estimate, 13.7Mt is sulphide (91%) with average grades of 7.17% Zn, 1.79% lead and 39.40 g/t silver, for a ZnEq grade of 9.90% or 1,350kt of contained ZnEq.

The updated resource estimate at Molaoi comes from 18 of 23 identified lodes at the Kalamaki Deposit (Exhibit 4). These loads cover a combined east-west width of 600m and a north-south strike of 2,100m. They have been tested to a depth of 400m but are likely to extend beyond this. The average width of all lodes throughout the resource is 4.1m, varying from 0.2m to 20m.

In addition to the compliant zinc-lead-silver resource, Rockfire has stated a non-compliant mineral quantity estimate of 4.8Mt at an average grade of 21.9g/t germanium, with contained germanium of 105,700Kg has also been published.

This mineral quantity is non-compliant as before 2021, the drill core was not analysed for germanium. It is only since Rockfire has taken ownership of the project that the germanium potential has been recognised. Additional drilling is expected to see germanium feed into future resource upgrades.

Exhibit 4: Lodes of the Kalamaki Deposit



Source: Company

Geology

The mineralisation at Molaoi is contained within concealed stratiform deposits rich in zinc, lead, silver and germanium hosted within sandstone, interlayered with unconsolidated tuffs and lava flows.

Historically, the deposits were widely considered to be part of a Kuroko-style Volcanogenic Massive sulphide (VMS) system, but more recent analysis points out that the deposits contain characteristics of both bimodal felsic massive sulphide deposits, a type of VMS deposit, and epithermal deposits.

The stratiform massive-to-semi-massive sulphide ore is formed along high-angle faults, in parallel fault breccias that are surrounded by zones of disseminated sulphides, giving the deposits a clear structural control.

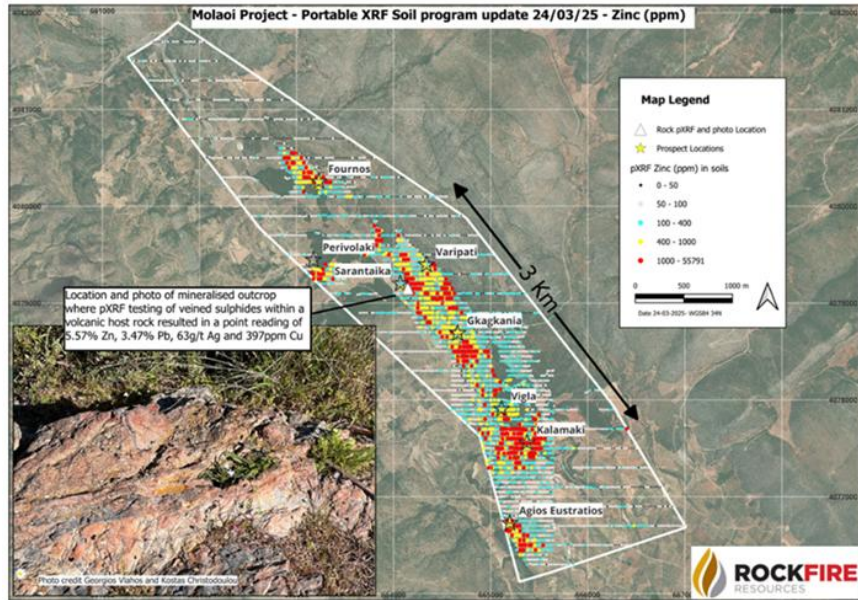
During the first part of the year, Rockfire completed a three-dimensional (3D) lithofacies model of the mineralisation at Molaoi that supported the theory that the deposit was formed by zinc-rich fluids injected along fractures and deposited into the porous sandstone units.

The model has highlighted other positions along strike where similar faults may have been active, defining more than six targets for exploration along strike. Many of these targets are supported by surface enrichment of zinc, and/or old workings and/or historical drill holes that encountered high-grade zinc mineralisation.

Exploration Potential

Rockfire has now defined anomalous zinc at the surface over a 5.2 Km long strike length as part of the portable X-ray fluorescence (pXRF) soil survey, with exploration targets established at Vigla, Gkagkania, Fournos, Sarantaika, Varipati, Perivolaki, Fournos, and Agios Eustratios (Exhibit 5).

Exhibit 5: pXRF anomalies at Rockfire’s Molaoi Zinc Project



Source: Company

Results from the Gkagkania Target are of a comparable scale to the surface signature above the resource base at the Kalamaki Deposit, located 600m to the south.

While the geochemical signature at Kalamaki may be slightly more elevated than Gkagkania, Rockfire has suggested that this could be due to the large amount of soil disturbance during previous exploration at Kalamaki. Geochemical anomalies at Gkagkania are above 0.15% Zn (+1,500ppm), which is considered strongly anomalous by Rockfire.

The potential for significant zinc to be discovered at Gkagkania is further supported by historic workings, including several old prospecting shafts up to 30m deep and historic drilling by the Greek government that includes: 6m at an average grade of 7.4% Zn (B048), 13m at an average grade of 8.2% Zn (BG011), and 3.85m at an average grade of 16.8% Zn (BG012).

The Fournos Target is located north of the existing resource base at Kalamaki and contains strong, coherent zones of zinc and lead in the soils. Limited historic drilling in this area returned 3.0m at an average grade of 8.4 % Zn.

The Agios Eustratios Target has been defined south of the resource base; previous drilling in the 1980s returned 0.5m at an average grade of 27.3% Zn.

Rockfire is confident that it can increase the current zinc resource estimate by at least four times its current level with additional exploration drilling at these targets and is targeting a resource base of 40-50Mt at an average grade of 8-9% ZnEq.

This would be a comparable grade to Fireweed Metals’ 103Mt (7% ZnEq) Macpass Project located in Canada. Fireweed currently has a market cap of C\$552 million (£299 million).

History

Mineralisation was first discovered at Molaoi in 1938, by the Institute of Geology and Mineral Exploration of Greece.

In 1979, the Greek Government commenced drilling at the project, which continued intermittently throughout the 1980s with 173 diamond drill holes completed at the project, defining zinc-lead-silver mineralisation over a 1,400m strike.

Two non-compliant resource estimates were established in 1988. The government then developed a 700m-long decline to bulk sample the westernmost massive sulphide lodes at around 50 m below the surface in 1989.

Metallurgical studies were completed on a bulk sample of mixed oxide and sulphide ore, and as a result, recoveries were low. Zinc oxide cannot easily be recovered by traditional processing methods and instead relies on hydrometallurgical processing, so metallurgical studies on a mixed oxide sulphide ore sample were always going to be low.

At the time, it was planned to mine the deposit as an open pit, so mining of the oxide and transition zone was assessed. Rockfire is focused on the sulphide portion of the orebody, where recoveries are expected to be higher.

Between 1991 and 1993, feasibility studies were completed on the project, but following this, no further work was completed.

Rockfire acquired its interest in the project in May 2022. Shortly after acquiring its interest in the project, Rockfire established a maiden resource estimate, which was then expanded in the September 2024 resource estimate.

Potential Mining Method

While mineralisation has been defined at the surface at Molaoi, Rockfire plans to develop the project as an underground retreat mining operation to minimise social and environmental impacts.

The near-surface and high-grade nature of Molaoi should deliver favourable economic metrics in an underground mining scenario.

The geomechanical behaviour of the surrounding rocks and orebody is also likely to lead the company to sink a shaft to mine the deposit rather than using a decline to mine the orebodies.

Metallurgy

Rockfire has completed initial metallurgical studies that have indicated the potential to produce two concentrates:

- A zinc-germanium concentrate with a zinc grade of 57% and 117 g/t germanium, produced in a 3-stage flotation circuit. This is well above the desired product grade of 50% contained zinc for a saleable concentrate, and the germanium is expected to be a valuable credit in the concentrate. First-pass metallurgical recovery for the zinc was 89%, but this figure could increase with more detailed tests.
- A lead-silver-copper-gold concentrate, with a lead grade of 63.6%, silver grade of 856g/t, copper grade of 2.62% and gold grade of 0.52g/t, was also produced in a 3-stage flotation circuit. First-pass metallurgical recovery of lead was 74% and 15.2% for silver, this figure is also expected to increase with more detailed

test work. The lead concentrate grade far exceeds the market requirement of 40% - 50% lead for a saleable concentrate.

The company is planning additional metallurgical studies to assess different hydrometallurgical processing routes to liberate the germanium and produce a separate higher-value germanium product.

Regional Infrastructure

Molaoi lies within 12.7Km of the coast and can be accessed by roads providing excellent access to potential markets. Mains electricity extends through the centre of the Molaoi licence, providing good connectivity to grid power.

Next Steps

The tenement scale pXRF survey is continuing with infill sampling on a 50m x 25m spacing, with results to be announced in due course.

Rockfire is waiting for its drill permit so it can commence a programme of 30 infill diamond drill holes to increase the confidence level of the Inferred Resource Estimate to Indicated.

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Allenby Capital, 5 St Helen’s Place London EC3A 6AB, +44 (0)20 3328 5656, www.allenbycapital.com