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Zinnwald Lithium plc / EPIC: ZNWD.L / Market: AIM / Sector: Mining

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# Zinnwald Lithium plc ("Zinnwald Lithium" or the "Company") Assay Results Highlight Potential for Significant Lithium Resource at Falkenhain

Zinnwald Lithium plc, the German focused lithium development company, is pleased to provide an exploration update regarding its 100% owned Falkenhain license ("Falkenhain") in Germany. These new results confirm the historic drill data, indicating the potential for an additional economic lithium resource that could provide a possible feed source for the Company's integrated lithium hydroxide project, as it advances a Bankable Feasibility Study ("BFS") towards completion by the end of 2023. The Falkenhain license area is located 2.5km from the proposed Zinnwald processing facility.

# HIGHLIGHTS

- Assay results for new drill hole LiSH-001 at Falkenhain show significant intercepts of thick high-grade lithium (Li), tin (Sn) and tungsten (W) mineralisation including:
  - $\circ~$  114m 194m (80m); Average 2,879 ppm Li; 492 ppm Sn and 271 ppm W
    - Including 140m 191m (51m); Average 3,421 ppm Li; 519ppm Sn and 361 ppm W
  - $\circ~$  334m 344m (10m); Average 3,206 ppm Li; > 1,924 ppm Sn and 83 ppm W
- Drill Hole "LiSH-001" is a twinned drill hole of the historical exploration drill-hole "SnFhiDi047" from 1974, which targeted tin and tungsten mineralisation at Falkenhain. Geological and geochemical results align well with the available data of the historic hole.
- The Company has reviewed an extensive historic dataset from previous exploration campaigns, which will be leveraged in combination with modern data arising from this and future drill programmes.
- A review of historic drill data and surviving drill core indicates the potential for a high-grade lithium resource at the Falkenhain license area, which has the potential to provide plant feed to the Company's flagship Zinnwald Project.
- Falkenhain lies within 2.5km of the processing site under consideration for the Zinnwald Project.

**Zinnwald Lithium CEO, Anton du Plessis, said:**"I am delighted that the initial results from our exploration campaign at Falkenhain support the review of historic data from the license area demonstrating the clear potential for a significant additional lithium resource. While our key focus remains advancing the Zinnwald Project towards a BFS by the end of the year, the proximity to our key Zinnwald Deposit and likely similarity of the geology suggests that Falkenhain could ultimately represent an exciting adjunct to the Zinnwald Project adding to its scale and importance as a domestic German supplier of lithium hydroxide to the growing European battery sector."

# DETAILS

# Background

The Falkenhain exploration license is located 7km to the north of the Company's flagship Zinnwald license and comprises the Schenkenshöhe and Hegelshöhe deposits. As early as the 16th century, tin bearing veins were mined on the eastern side of the Hegelshöhe. Systematic exploration for tin and tungsten at these deposits primarily dates back to between 1964 and 1990, motivated by the need for these strategic metals within the former German Democratic Republic ("GDR"). Whilst lithium was not the focus of previous exploration, historic data shows some intersections with exceptionally high lithium grades and extensive academic research points to the geology of Falkenhain being comparable to that of Zinnwald as Li-Sn-W greisen type deposits.

The Company has now completed its review of the available exploration data, including re-logging of historic drill core related to the license area. The Saxony Mining Authority recently extended the Falkenhain exploration for another three years to 31<sup>st</sup> December 2025. The license area is interesting in terms of Li / Sn / W - resource potential and is also close to the primary site being considered for the main processing facility of the Zinnwald Project.

Following extensive geological analysis of historic data related to the license area, the Company executed its first exploration drill hole at the Schenkenshöhe deposit last year. The target of this hole was to verify a historical drill-hole *SnFhiDi047* from 1974 and gain new geochemical data, focused on lithium, to determine grades and continuity.

### Geology

The Schenkenshöhe and Hegelshöhe are Li-Sn-W greisen satellite deposits of the main Zinnwald/Cinovec Li-Sn-W greisen deposits in the Eastern Erzgebirge. The deposits are characterised by several granite intrusions and greisen mineralisation comparable to the occurrence in the Zinnwald Deposit, also hosted in volcanic successions of the regional volcanic complex.

'Greisenisation' is caused by hydrothermal fluids and changes to the mineralogy and geochemistry of the rocks adjacent to fluid pathways. A key characteristic at Falkenhain are the distinct greisen-types within the surrounding host rocks (exo-contact greisen) and the granites (endo contact greisen). The greisen ore bodies show different generations of Li-Sn-W mineralisation caused by the various granitic intrusions. These are represented by different highly specialised granite types enriched in incompatible elements like Li, Sn, W, and others.

#### Results from Drill hole LiSH-001 (2022)

The purpose of the drill hole was to verify the historic drill-hole SnFhiDi047, which was undertaken in 1974. LiSH-001 was drilled to a total depth of 600.3m and subsequently logged and assayed using the same standards as have been applied for the Zinnwald Lithium Project. The observed lithology is identical to the historic core log of the twinned hole. Assay results have shown a very similar grade distribution to results from Zinnwald and in general a high degree of grade continuity in both exo- and endo-contact greisens.

However, in comparison to Zinnwald, the greisen mineralisation at Falkenhain extends beyond the Albite granite intrusion and into the volcanic host rocks. Additionally, whilst tin and tungsten mineralisation occur at both the Zinnwald and Falkenhain projects, recent and historic drilling results demonstrate notable high-grade zones of tin and tungsten, pointing to further upside potential at Falkenhain.

The first assay result includes long mineralised intersections above 1,500 ppm Li such as:

- 114m 194m (80m); Average 2,879 ppm Li; 492 ppm Sn and 271 ppm W
  - Including 140m 191m (51m); Average 3,421 ppm Li; 519 ppm Sn and 361 ppm W
- 226m 243m (17m); Average 2,486 ppm Li; 804 ppm Sn and 79 ppm W
  - Including 237m 243m (6m); Average 2,842 ppm Li; 1,398 ppm Sn and 49 ppm W
- 251m 261m (10m); Average 1,788 ppm Li; 912 ppm Sn; 21 ppm W
- 287m 299m (12 m); Average 2,283 ppm Li; 264 ppm Sn and 106 ppm W
- 308m 327m (19 m); Average 2,796 ppm Li; 648 ppm Sn and 228 ppm W
- 334m 344m (10m); Average 3,206 ppm Li; > 1,924 ppm Sn and 83 ppm W
  - Including 334 m 341 m (7m), Average 3,851 ppm Li, > 2,641 ppm Sn and 64 ppm W

(Assay intervals with values for Sn marked with ">" indicate outstanding assay results for samples where the upper detection limit of 10,000 ppm Sn was exceeded and ore grade assay results are outstanding. These average values for selected intervals are therefore expected to increase further.)

## Geological interpretation of the results

The positive results indicate the presence of lithium within the Schenkenshöhe deposit. The extent and

shape of the lithium mineralisation needs to be further explored by additional drilling. The corresponding geological setting for Schenkenshöhe and Hegelshöhe suggests that the geological potential for greisen style Li / Sn / W mineralisation is analogous and warrants further definition.

Whilst Falkenhain type greisen mineralisation is broadly comparable to Zinnwald type greisen ore, the Company intends to test the processing characteristics of this material further in upcoming test-work campaigns.

Based on historic work, and from initial mineralogical studies undertaken by the Company, the main lithium bearing mineral at Falkenhain belongs to the Zinnwaldite Mica Group, while Cassiterite and Wolframite are respectively the main tin and tungsten ore minerals.

# **Planned Exploration Campaign**

As part of the Falkenhain exploration drill campaign, nine more drillholes are planned and have already been approved by the relevant authorities.

In addition, intervals of historical drill cores are being sampled for assay and analysed using hyperspectral scanning at TheiaX GmbH (Freiberg Germany). The results will be utilised to prepare a 3D geological model and help to ultimately define a first modern style mineral resource estimate of the Schenkenshöhe and Hegelshöhe deposits.

## **Ongoing BFS work and In-fill Drill Programme**

The Company remains focused on advancing its BFS, including the ongoing in-fill drill campaign at the Zinnwald license supported by further test work related to mineral and chemical processing. Objectives include support for detailed mine design planning, as well as investigating the potential to include lithium contained in the Albite Granite lithology into an updated Mineral Resource Estimate. Presently, the Company is operating three drill rigs at Zinnwald and has completed 19 drill holes and 6,158 metres of drill core since the start of the in-fill drill campaign in 2022.

The technical information in this announcement has been reviewed on behalf of Zinnwald Lithium by Martin Pittuck CEng, FGS, MIMMM of SRK Consulting. Mr Pittuck is a Corporate Consultant of SRK Consulting Ltd. Mr Pittuck has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person in accordance with the guidance note for Mining, Oil & Gas Companies issued by the London Stock Exchange in respect of AIM Companies, which outlines standards of disclosure for mineral projects. Mr Pittuck consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### \*ENDS\*

Anton du Plessis Cherif Rifaat	Zinnwald Lithium plc	info@zinnwaldlithium.com
David Hart Dan Dearden-Williams	Allenby Capital (Nominated Adviser)	+44 (0) 20 3328 5656
Michael Seabrook Adam Pollock	Oberon Capital Ltd (Broker)	+44 (0) 20 3179 5300
Isabel de Salis Paul Dulieu	St Brides Partners (Financial PR)	zinnwald@stbridespartners.co.uk

For further information visi<u>t www.zinnwaldlithium.com</u> or contact:

#### Notes

AIM quoted Zinnwald Lithium plc (EPIC: ZNWD.L) is focussed on becoming an important supplier of lithium hydroxide to Europe's fast-growing battery sector. The Company owns 100% of the Zinnwald Lithium Project in Germany, which has an approved mining licence, is located in the heart of Europe's chemical and automotive industries, and has the potential to be one of Europe's more advanced battery grade lithium

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