

Fulcrum Metals plc / EPIC: FMET / Market: AIM / Sector: Mining

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Fulcrum Metals plc

("Fulcrum" or the "Company" or the "Group")

Teck-Hughes and Sylvanite gold tailings update

Extrakt technology increases gold recovery at Sylvanite Gold tailings by up to 63%

Fulcrum Metals plc (LON: FMET), a company focused on mineral extraction and exploration in Canada, is pleased to announce an exceptional increase in gold recoveries of up to 63% in addition to a significant reduction of leach times of up to 94% from the Phase 1 test work at the Sylvanite gold project ("**Sylvanite**") and the start of the Phase 2 conceptual study at the Teck-Hughes gold project ("**Teck-Hughes**").

Fulcrum is currently testing Extrakt Process Solutions LLC's ("**Extrakt**") processing technology through a four phased development programme, details of which have been set out by the Company in prior announcements.

Highlights

- **Teck-Hughes Gold Tailings Project**
 - o Phase 2 conceptual study has commenced delivering operating plans and cost estimates
 - o 16 site auger hole sampling near completion which will expand the data set to facilitate a 43-101 technical report
- **Sylvanite Gold Tailings Project**
 - o Initial unoptimised phase 1 leach test work results with Extrakt's non-toxic technology delivers significant improvements compared to 2008 cyanide-based test methods
 - o **Up to 63% increase in gold recoveries** from 30% to 49%
 - o **94% reduction in leaching times** from 48 hours to as little as 3 hours
 - o Extrakt believes that these results indicate that higher gold recovery can be achieved through an optimization program of the operational parameters

Ryan Mee, Chief Executive Officer of Fulcrum, commented:

"Unoptimised leach test work at Sylvanite has delivered remarkable results increasing the gold recoveries by over 60% and materially cutting leach times by over 90% compared to historic leach testing."

"Leaching is the key factor to unlocking the vast resource potential held within mine waste that sits in tailings in Kirkland Lake, one of Canada's great gold camps with over 40Moz of gold produced.

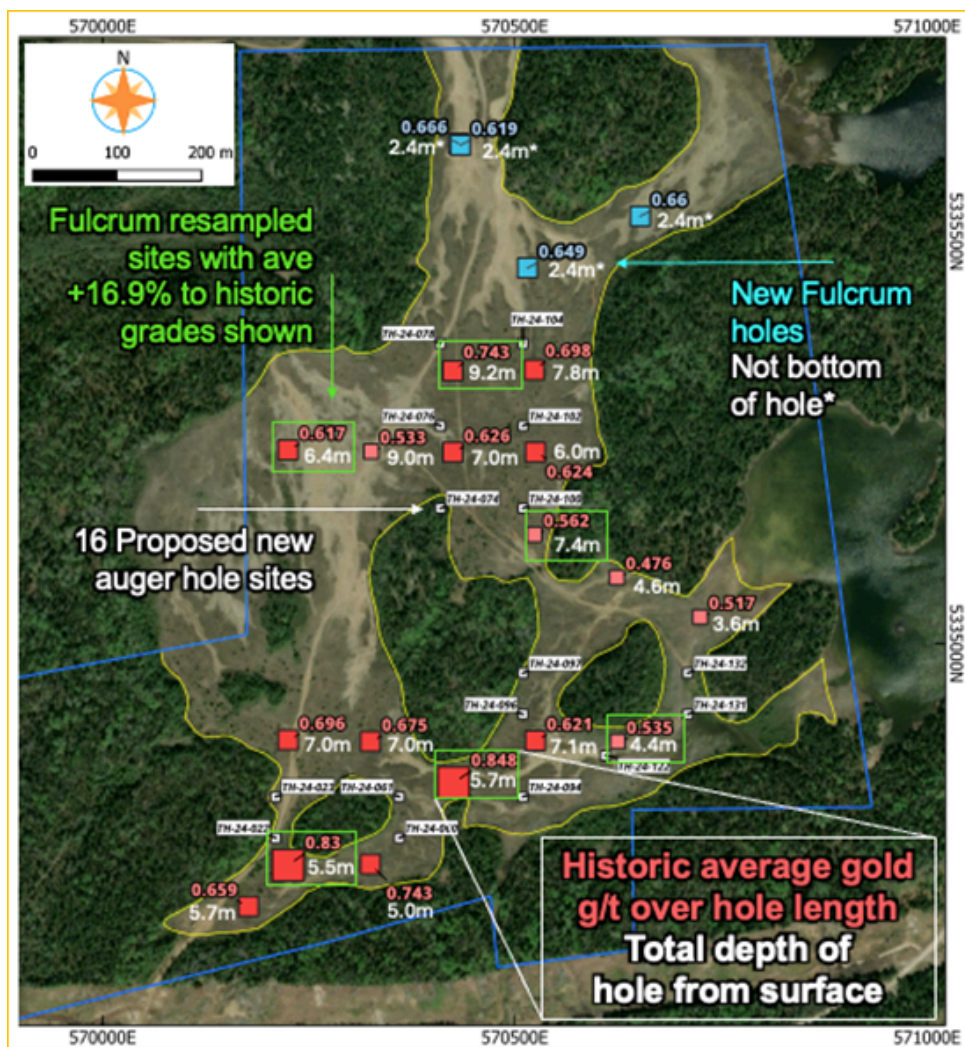
"The unoptimised leach test work at Sylvanite and Teck-Hughes earlier this year is a significant step in proving the disruptive potential of Extrakt's technology. The technology, which is being used by Fulcrum, places us at the forefront in discovering lost resources from mine waste including from difficult refractory ore.

Significant work at Teck-Hughes is advancing with the phase 2 conceptual study starting alongside resource definition work that could support a 43-101 technical report."

Teck-Hughes Gold tailings project

The Company is nearing completion of its auger hole sampling campaign across an additional 16 sites (shown in Figure 1 below) and reviewing further auger sites for sampling. The results will be used by Fulcrum to further expand the data set and will contribute data that is required for the completion of a 43-101 technical report including resource definition and feed into a wider resource auger hole program in due course. Samples from the campaign, which has identified silver and tellurium results at four newly sampled auger sites, will be sent to Actlabs in Timmins to screen for gold, silver and tellurium assay.

Figure 1 - Teck-Hughes historic and new auger holes with gold grades and depth from surface and new auger hole sites underway



The Phase 2 Conceptual study has commenced and is designed to deliver all aspects of design, process, flow diagrams, equipment requirements, costing and trade off studies for operating and capital cost estimates.

Sylvanite Gold tailings project

The Phase 1 test work programme is designed to initially evaluate the efficiency of Extrakt's processing technology in recovering gold from the tailings at the Sylvanite Project. Sampling and analysis of the gold content of the tailings produced composite samples for each of the selected seven sites returned an average weighted grade of 0.60g/t Au. **Unoptimised initial leach tests using the Extrakt Technology has reported gold recovery rates of up to 49% over leaching times as low as 3 hours** using the as-received composite sample with no re-grinding or treatment of the tailings material.

The results of the phase 1 testing show significant improvement of up to 63% in gold recovery and 94% reduction in leaching times when compared to traditional cyanide leaching tests in 2008 which achieved on average c.30% gold recovery over leaching times of 48 hours.

Whilst the initial leach test results are significant, additional leach tests will be conducted to optimise the parameters with the aim of further increasing the gold recoveries and overall efficiency.

Background

Update on licensing discussions with Extrakt

The Company announced mining option agreements to acquire the Teck-Hughes tailings project on 30 November 2023 and the Sylvanite tailings project on 10 April 2024, both located in Kirkland Lake, Ontario. On 24 January 2024, Fulcrum entered into a phased development programmes with Extrakt for the Teck-Hughes tailings project, and on 12 June 2024 for the Sylvanite Tailings Project.

Fulcrum are developing these assets with Extrakt and their sustainable technology which uses separation technology to extract metals from tailings without the use of cyanide. Licensing terms of the technology are usually agreed following the completion of the phased development program which utilises the data compiled for an effective mechanism.

Since the announcement on 30 November 2023, Fulcrum has been advancing discussions with Extrakt about the possible exclusive licensing of its proprietary technology. Non-binding terms have been agreed with Extrakt and their associates for exclusivity of Extrakt's gold leaching technology for legacy mine waste sites for the mining regions of Timmins and Kirkland Lake in Ontario. These are two of Canada's biggest gold camps with over 110Moz of gold produced and over 70 documented legacy mine waste sites. All parties are now focussed on documentation to close out the terms in a definitive Master Licencing Agreement (MLA).

About Extrakt

Extrakt Process Solutions is a technology company that is focused on separation technologies for recovering precious mineral recovery, hydrocarbon separation as well as dewatering of mine

waste and other related processes without the use of cyanide. The company has a global patent portfolio and continues to develop new processes and technologies. See www.extraktps.com

About Bechtel

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Extrakt Process Solutions, LLC (Extrakt) and Bechtel Energy Technologies & Solutions, Inc. (BETS) have formed a strategic global technology alliance, to commercialize Extrakt's novel, leaching technology and solid-liquid separation technology, known as TNS™. TNS addresses the difficult challenges of mine tailings, dewatering, and product recovery in a sustainable, effective manner. Click [here](#) to read about the strategic alliance press release.

Teck-Hughes Gold Tailings Project

Historic sampling and auger drilling campaigns were initially conducted at the Project in 1980 and most recently between 2018 and 2022, which produced a non-complaint resource estimate.

As part of the most recent campaign, a total of 95 auger samples were collected and assayed at Actlabs in Timmins. The highest sample assayed **1.73g/t Au** with 72 of the 95 samples assaying between **0.5 to 0.8 g/t Au**. The average was **0.66g/t Au**.

Based on the data from this sampling, along with that of the drill program from 1980, an estimate of the tonnage was calculated over the north, west and northeast arm of the tailings. This totalled **6,531,300 tonnes** of material at **0.66g/tonne Au** for **138,460 ounces** contained Au*.

Sylvanite Gold Mine Tailings Project

A 1986 report filed on the property estimated a tailings resource of 4.52 million tons (**4.14 million tonnes**) grading **0.015 oz/ton Au (0.47g/t Au)** containing **67,051 ounces** of gold*.

In 2008 a 30m x 25m sampling grid was established with drilling to base of tailings to obtain samples for assay and recovery test work - 1.22m sample length in 149 holes totalling 926.6m - with a maximum tailings thickness of 12.2m reported. An average grade of 0.541g/t Au was reported in the 20 holes fully sampled and assayed. In addition to this cyanide leaching tests achieved on average c.30% gold recovery which, when combined with a roasting process improved gold recovery to c.60%. Thiosulfate leaching achieved c.25% gold recovery rates.

In 2012 metallurgical work and a pilot plant campaign work by Advanced Reclaim International demonstrated a viable and scalable mineral processing approach to recover saleable gold containing concentrate and leaving reprocessed tailings with properties suitable for use as a subsoil when restoring vegetation cover on the former tailings area. The cleaner concentrate achieved 21.5g/t gold, 14.1g/t silver and 152g/t Tellurium.

**The historic non-compliant resource estimates cited in this release have not been verified by Fulcrum and the tailings bodies require detailed follow-up sampling along with appropriate QAQC and*

estimation by an independent qualified resource geologist for Fulcrum to be able to report resources compliant with established resource codes.

Qualified Person Statement

The technical information in this announcement has been reviewed by Edward (Ed) Slowey, BSc, PGeo, technical advisor to Fulcrum Metals Plc. Mr Slowey is a graduate geologist with more than 40 years' relevant experience in mineral exploration and mining and a founder member of the Institute of Geologists of Ireland. Mr Slowey has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which has been undertaken to qualify as a "Qualified Person" in accordance with the AIM Rules Guidance Note for Mining and Oil & Gas Companies. Mr Slowey consents to the inclusion in the announcement of the matters based on their information in the form and context in which it appears.

Glossary

Item	Definition
"Au"	Gold
"g/t"	Grams per metric tonne
"QAQC"	Quality assurance and quality control

For further information please visit <https://fulcrummetals.com/> or contact:

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Notes to Editors

About Fulcrum Metals PLC

Fulcrum Metals PLC (AIM: FMET) is an AIM quoted exploration and extraction company which finances and manages resource projects.

Fulcrum are technology driven in developing mineral extraction opportunities using disruptive non-toxic technology to unlock lost resources from historic mine waste (tailings) in a more sustainable manner that is capable of low cost, near-term cash flow.

Fulcrum has a portfolio of highly prospective gold exploration assets in Ontario to either develop or seek disposal/partner opportunities. Fulcrum successfully optioned out a portfolio of Saskatchewan Uranium projects (see RNS 30 July 2024) to Terra Balcanica Resources (TSXV:TERA).

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