

## ASX Announcement



10 October 2024

### Airborne EM Survey Commenced at Fairfield Copper Project

#### Highlights

- Airborne EM survey has commenced at Fairfield Copper Project in New Brunswick, Canada
- VLF-EM and magnetic survey aims to detect anomalies along target horizon at Demoiselle, Dorchester North, Tantramar and Lower Cape and define targets for drill testing
- FMR is rapidly advancing Fairfield at a time of increased interest in Canadian copper projects



*Figure 1.* Drone VLF-EM and magnetics survey in progress at Fairfield.

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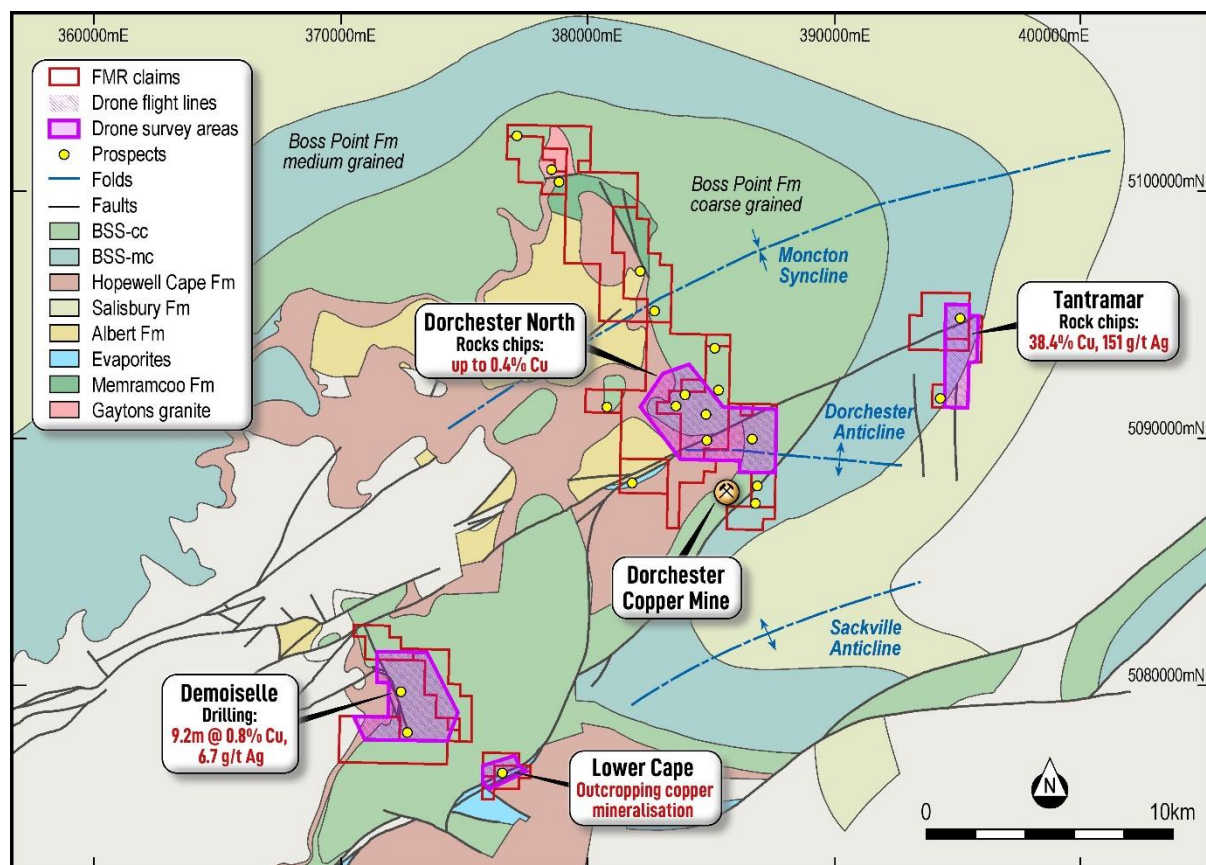
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FMR Resources Limited (ASX:FMR) (**FMR** or **Company**) is pleased to announce the commencement of an airborne electromagnetic (**AEM**) survey at its 100% owned Fairfield Copper Project, located in New Brunswick, Canada.

The AEM survey has been planned to map the target horizon and key structures which control copper mineralisation at Fairfield and aims to detect any anomalous EM responses which may be caused by accumulations of copper-bearing sulphide minerals.

Non-Executive Director Bill Oliver commented *"It is very pleasing to get this survey underway at Fairfield. We have identified numerous targets from the historical datasets and we look forward to this survey confirming the scale and extent of those known targets as well as hopefully identifying new targets for drill targeting later this year. With renewed activity in copper exploration as well as in the New Brunswick region we certainly believe we are in the right place at the right time."*



**Figure 2.** Planned drone VLF-EM and magnetics survey.  
Results shown released in ASX Announcement 13 August 2024.

## Survey Objectives

The airborne EM survey will be vital to define extensions to the areas of known mineralisation at Fairfield as well as provide an excellent tool for drill targeting at the project. EM anomalies detected by the survey may represent accumulations of sulphide minerals which host copper mineralisation and accordingly any anomalies will represent priority targets for drill testing. The airborne EM and magnetic data should also clearly map the target horizon (the contact between the Carboniferous Boss Point formation grey beds and Devonian Hopewell formation red beds) along with the controlling structures that host copper mineralisation across the project. The survey will be carried out at a 50m spacing to ensure sufficient detail for imagery and interpretation as well as modelling following completion of the survey.

The airborne EM survey will target the key prospects at Fairfield identified to date (see Figure 2):

- Demoiselle: define host structures and delineate potential extensions to mineralisation identified in historical drilling (including 9.2m at 0.8% Cu, 6.7 g/t Ag from 12m with 0.3m at 10.5% Cu, 31 g/t Ag) <sup>1</sup>
- Dorchester North: target potential extensions of mineralisation from the historical Dorchester Copper Mine extending into FMR's ground along the contact horizon <sup>1</sup>
- Tantramar: define structures which may host extensions to outcropping copper mineralisation where rock chip results have returned grades in excess of 30 % Cu and 151 g/t Ag <sup>2</sup>

## Next Steps

The survey is anticipated to take 9 days followed by data validation and processing. Once the data has been received and checked, identification and interpretation of anomalies will be carried out as well as an inversion 3D model completed to generate drill targets for the planned winter program.

Results from recent geological mapping and outcrop sampling at the Fairfield Copper project are also expected in coming weeks.

## Background

The Fairfield Copper Project is located in the highly prospective Appalachian Copper-Gold Belt (Figure 3) which is renowned as a well endowed copper-gold province with known deposits including the Gaspé Copper Deposit (owned by **Osisko Metals (OSK.TO)**, historic production 141Mt at 0.9% Cu<sup>i</sup>) and the Green Bay Copper Deposit (owned by **Firefly Metals (FFM.AX)**, 39.2Mt at 1.8% Cu, 0.3 g/t Au<sup>ii</sup>) as well as several gold deposits (Figure 3). Recent activity in the Appalachian Belt includes the acquisition of the York Harbour Deposit by **Firetail Resources (FTL.AX)** and the acquisition of the Chester Deposit by **Raptor Resources (RAP.AX)**.

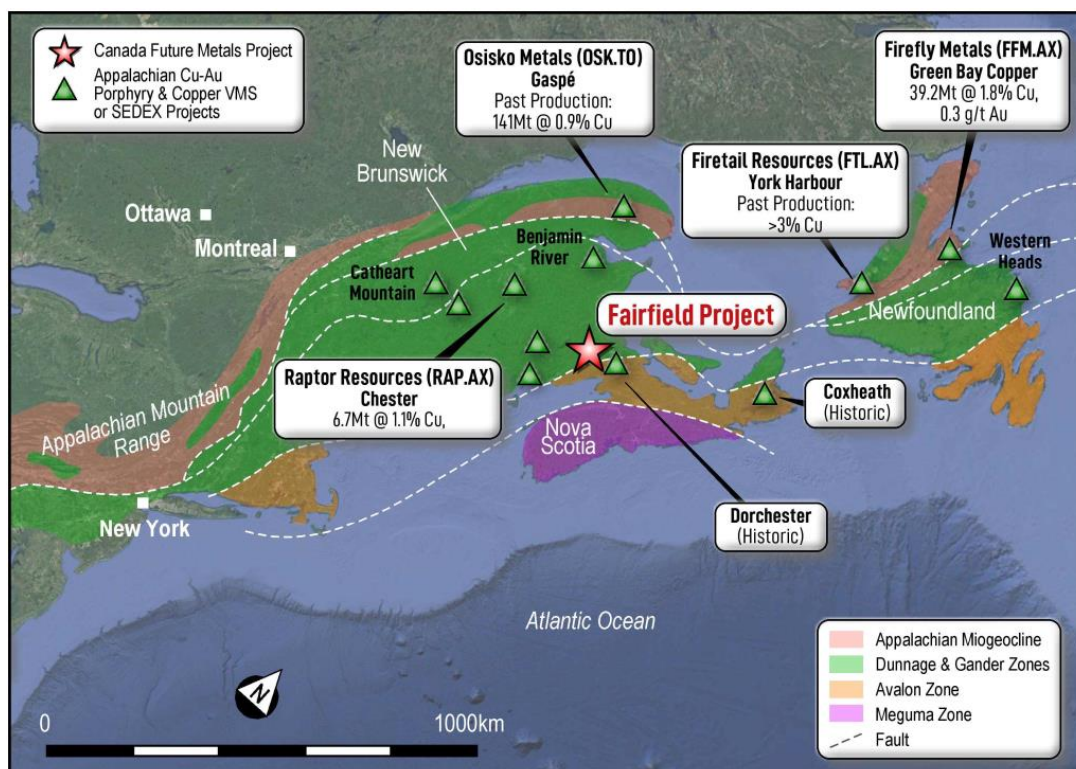
<sup>1</sup> Refer ASX Announcement 12 March 2024 "AFW to acquire Fairfield Copper and Fintry REE Projects"

<sup>2</sup> Refer ASX Announcement 13 August 2024 "High Grade Copper in Rock Chips at Fairfield Copper Project"

The Fairfield Project is considered highly prospective for copper mineralisation as it is strategically located directly along strike (within 1km) of the Dorchester sediment-hosted copper deposit. The Dorchester Mine has recorded production of 2,000 tonnes at 3.7% with mineralisation by Gulf Minerals<sup>iii</sup> as an average 6.1 metre thick zone dipping to a depth 335 metres along a strike length of 1,067 m with an average grade of just under 1% Cu (Figure 2).

The property claims now comprise 93.6sq km of ground staked over >20 km of the prospective target structures. Claims have been secured over areas the Company believe has the potential to host copper mineralisation based on the presence of known mineral occurrences, soil anomalies and geophysical anomalies identified by previous operators that are underexplored by modern techniques. The area is renowned for outcropping copper mineralisation mapped at surface and mineralisation has also been intersected in drilling by previous explorers.

Sediment-hosted copper mineralisation identified at Fairfield displays geological similarities to major copper deposits around the world. The most renowned sediment-hosted copper deposit in the world is the Central African Copper Belt which is the largest district of sediment-hosted copper deposits in the world<sup>iv</sup>. Other examples of sediment-hosted deposits in North America are the White Pine and Copperwood Projects held by Highland Copper in Michigan, USA (combined NI 43-101-compliant resources of 301.3 Mt @ 1.1 % Cu<sup>v,vi</sup>), the Redstone/Coates copper deposit, Northwest Territories (NI 43-101-compliant resources of 33.6 Mt at 3.9% Cu<sup>viii</sup>) and also the emerging discovery of the Storm Deposit in Nunavut, Canada with recent intersections including 76m at 2% Cu<sup>vii</sup>.



**Figure 3.** Location of the Fairfield Copper Project, New Brunswick, Canada.



## References

- i. Camus, Y & Dupere, M., 2022. NI-43-101 Technical Report on the Gaspé Copper Project Mineral Resource Estimate Mount Copper Project, Quebec., Canada. (<https://osiskometals.com/wp-content/uploads/2022/07/Osisko-Metals-Gaspe-Copper-Project-2022-43101-Technical-Report-20220609.pdf>)
- ii. Firefly Metals (FFM.AX) ASX Announcement dated August 31, 2023 (<https://wcsecure.weblink.com.au/pdf/AUT/02705676.pdf>).
- iii. Boyd, J.A., 1977-78. Gulf Minerals Canada Reports: Report on Geological Investigations Dorchester Area, New Brunswick. Assessment Reports 470479 & 472201 and <https://dnrmrn.gnb.ca/MineralOccurrence/default.aspx?componentID=5&urn=87>
- iv. Selley D, Broughton D, Scott R, Hitzman M, Bull S, Large R, McGoldrick P, Croaker M and Pollington N, 2005 - A new look at the geology of the Zambian Copperbelt: in Economic Geology, 100 Anniversary Volume, Society of Economic Geologists, pp. 965-100
- v. Michaud., C et. al., 2023. NI 43-101 Compliant Feasibility Study Update Copperwood Project Michigan, USA. [https://www.highlandcopper.com/files/ugd/dc399b\\_59e8ae0f940c40f1ac6d4769a5f8ea6a.pdf](https://www.highlandcopper.com/files/ugd/dc399b_59e8ae0f940c40f1ac6d4769a5f8ea6a.pdf)
- vi. Michaud., C et. al., 2023. NI 43-101 Compliant Feasibility Study Update White Pine North Project Michigan, USA. ([https://www.highlandcopper.com/files/ugd/a100ef\\_02efcd55b0804e85937dc709b3c253ce.pdf](https://www.highlandcopper.com/files/ugd/a100ef_02efcd55b0804e85937dc709b3c253ce.pdf)).
- vii. Goulay., A., 2005. Technical Report on the Coates Lake Copper Deposit, Nahanni Mining District, Western Northwest Territories for Lumina Resources Corporation. (<https://www.sec.gov/Archives/edgar/data/1364125/000106299307001404/exhibit99-4.pdf>).
- viii. American West Metals (AW1.AX) ASX Announcement dated September 26, 2023 (<https://aw12.irmau.com/pdf/f30fe576-b247-471e-a115-f17c3b464e6a/More-HighGrade-Copper-Discoveries-at-Storm.pdf>).

*This announcement has been approved by the FMR Board of Directors.*

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## About FMR Resources Limited

FMR Resources is a diversified explorer with a focus on battery and critical minerals exploration and development. Our tenement package, located in Canada, consists of the Fairfield and Fintry Projects, which are prospective for copper and rare earth elements.

### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on information compiled under the supervision of Bill Oliver, a Director of FMR Resources Limited. Mr Oliver is a member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (the JORC Code). Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which they appear.

### **Compliance Statement**

The information detailed in this announcement that relates to previous exploration results have been cross-referenced to the original announcement or are sourced from the Independent Geologist’s Report contained within the Prospectus dated 13 May 2024 and the Supplementary Prospectus dated 21 May 2024, both of which are available to view on the FMR website at [www.fmrresources.com.au](http://www.fmrresources.com.au). The Company confirms that it is not aware of any new information or data that materially affects previous exploration results referred to in this announcement. The Company also confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the relevant original market announcements.