ENTERPRISE METALS LIMITED

ASX ANNOUNCEMENT **5 September 2012**

POTENTIAL NEW URANIUM PROVINCE IDENTIFIED BY AIRBORNE EM

- **Airborne EM data from Peranbye Project defines deep palaeochannels below present day uranium bearing lake systems.**
- **Airborne geophysics and limited surface sampling indicate extensive areas of uranium deposition (+120km strike extent)**

SUMMARY

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") wishes to announce that orientation Airborne Electromagnetic (AEM) traverses over the Peranbye Project area (refer Figure 1) have discovered extensive and deep palaeochannels below the present day lake and river systems.

The Company considers these palaeochannels, which are up to 150 metres deep, to be highly prospective for both surface and deeper sand hosted uranium mineralisation. The sixteen individual AEM traverses (163 line km) were designed to test the Company's theory that the current day shallow lake systems are the surface manifestation of ancient, deep river systems.

The Company's Chairman, Dr Jingbin Wang, commenting on the results, said: *"Together with uranium anomalism detected in airborne surveys, and our previously reported highly anomalous surficial uranium assays, this airborne EM data strongly supports the Company's view that the area is prospective for uranium. These palaeochannels have not previously been explored for uranium, and the Company has now obtained a dominant land position (1,443km^2) in a potentially new uranium province with excellent infrastructure. We are looking forward to eventually drill testing these targets."*

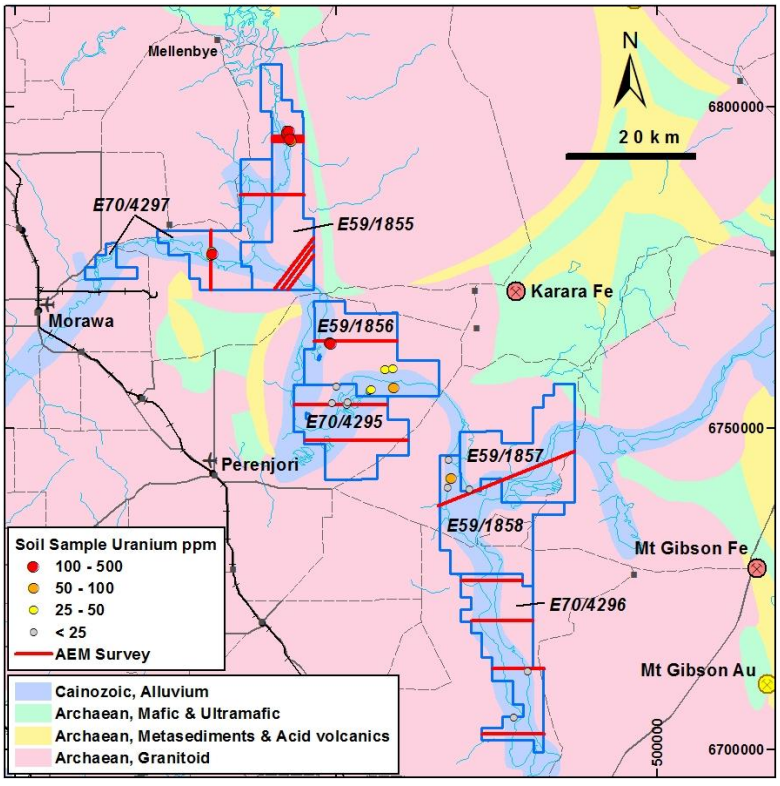

Figure 1: Peranbye Project: Location of Tenements and Orientation AEM lines.

BACKGROUND

The seven tenements of the Peranbye Project were pegged following the identification of significant uranium anomalies in airborne radiometric data released in early 2012 by the WA Geological Survey under its "*Royalties for Regions*" program. (Figure 2) An initial field visit to several of these uranium anomalies was undertaken in April-May 2012, and highly anomalous concentrations of uranium (between 100ppm U and 500ppm U) were found in calcareous clays and calcretes within lakes and palaeochannels, refer Figures 10 and 11. *(ENT:ASX: June Quarterly Report, 11 July 2012)*

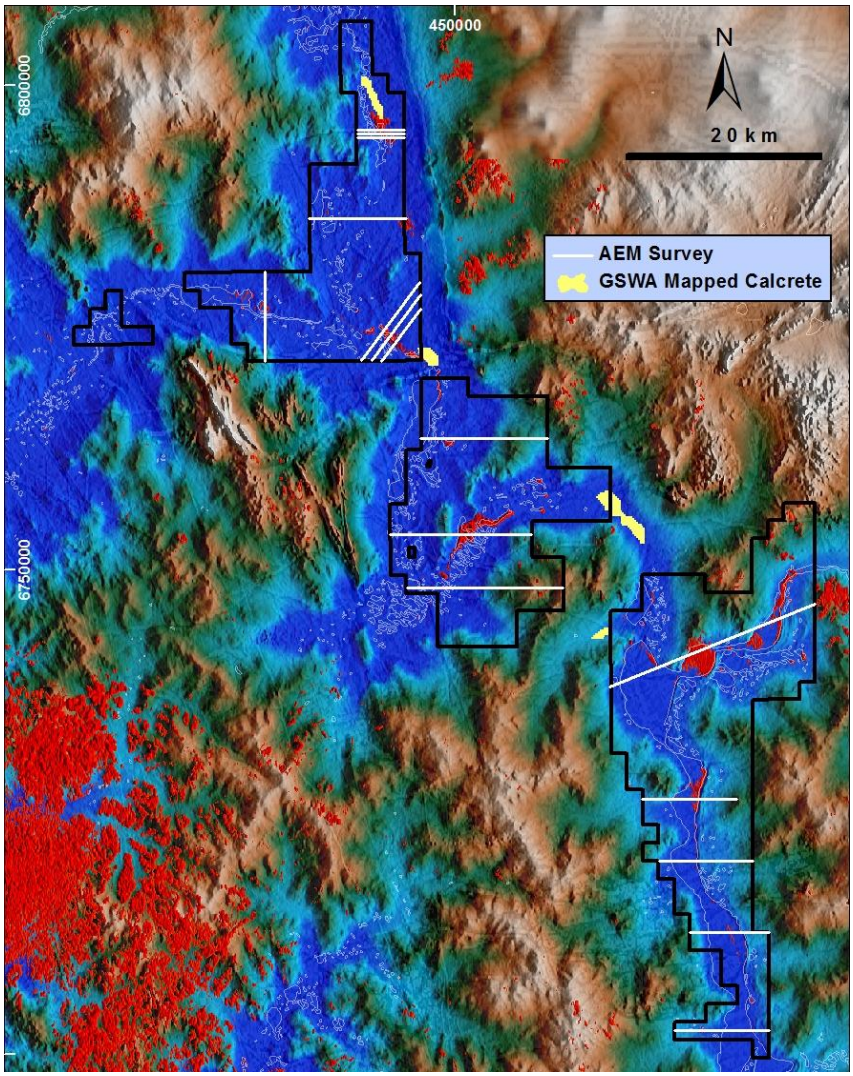

Figure 2: Peranbye Project: Orientation AEM lines & Uranium Anomalies (in red) over Topography (Digital Terrain Model or "DTM")

The Company subsequently flew orientation AEM traverses in July 2012 to test the theory that deep and ancient palaeochannels existed beneath the extensive present day lake systems. Conductivity Depth Images ("*CDI's",* refer Figures 4 – 11 overleaf) clearly define these palaeochannels.

Note that the deeper or deepest parts of the channels (defined by the AEM CDI's) where uranium mineralisation is expected to occur in classical basal sand-hosted settings, are generally immediately below the maximum surface concentration of uranium (in red on Figures 3, 5 & 8).

Subject to various approvals, it is the Company's intention to drill test the deep palaeochannels identified by the AEM traverses.

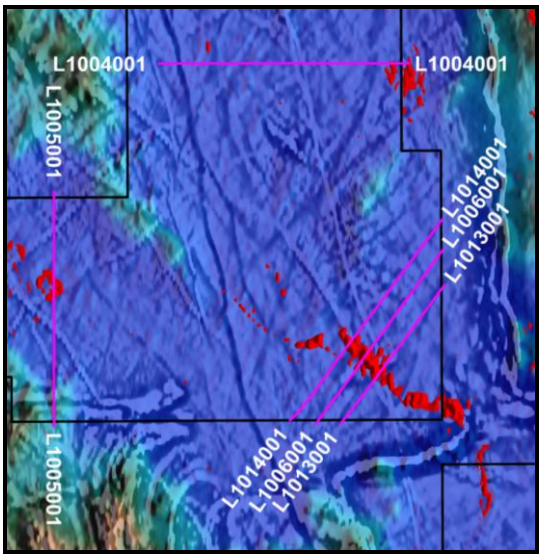

Figure 3: E59/1855, Orientation AEM Traverses over Airborne Uranium Anomaly (in red) and DTM.

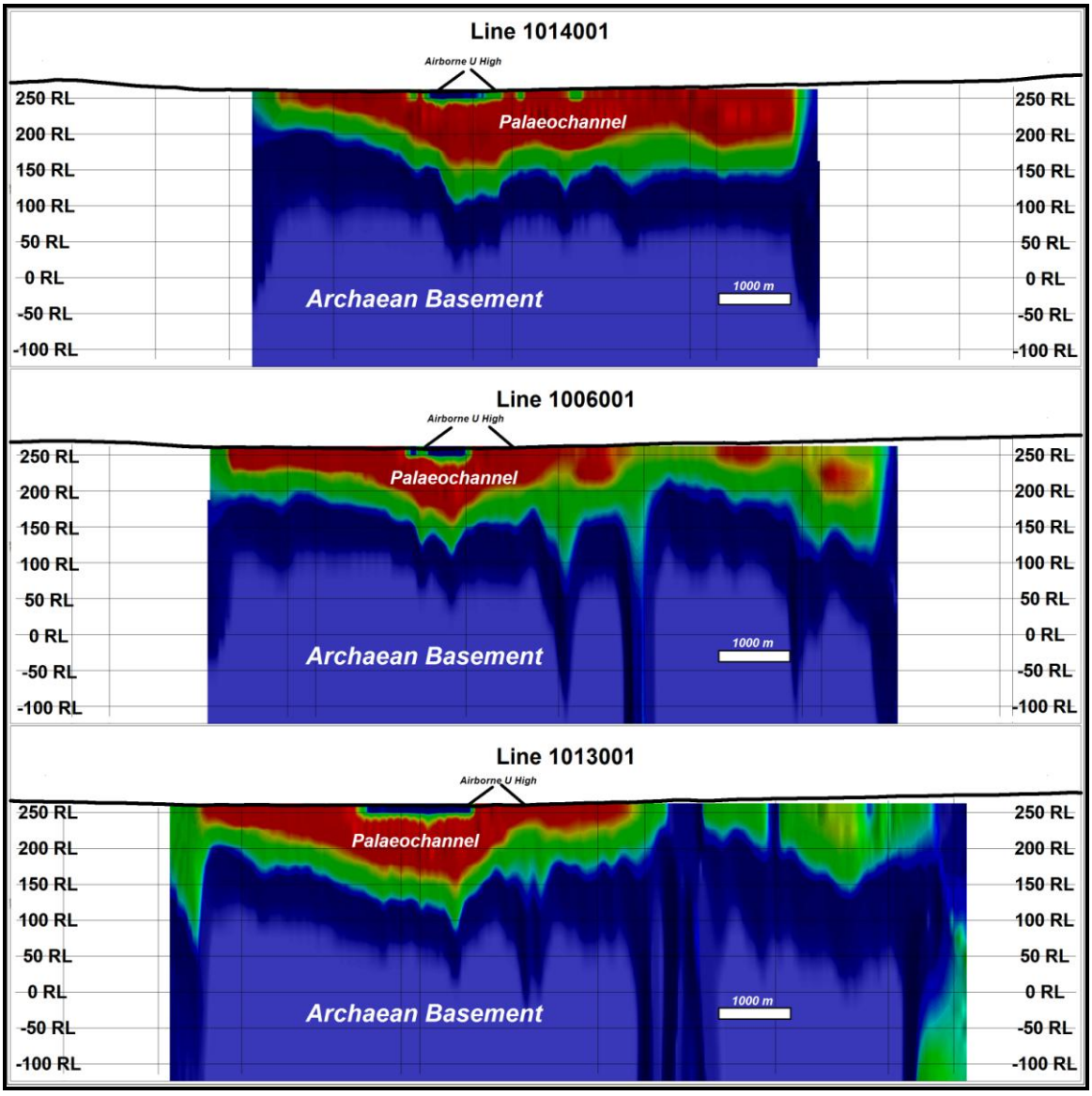

Figure 4: E59/1855, AEM Conductivity Depth Image

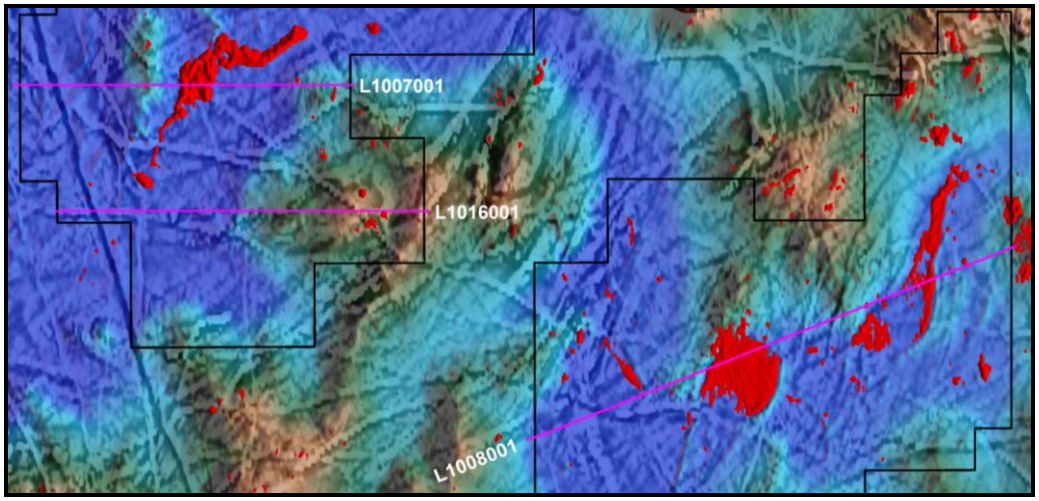

Figure 5: E70/4295, E59/1857-1858, Orientation AEM Traverses over Airborne Uranium Anomaly (in red) and DTM.

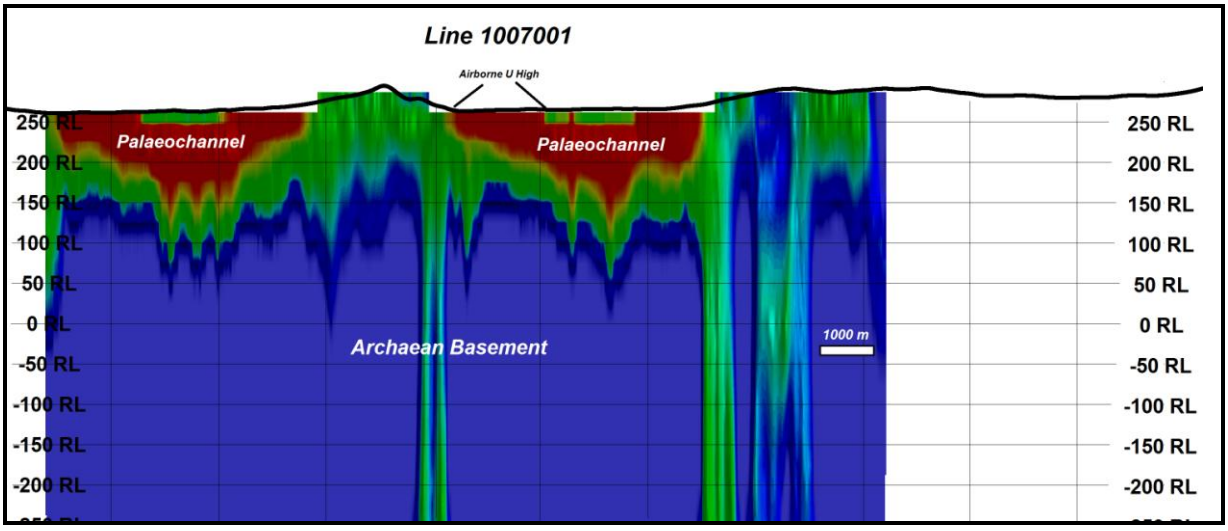

Figure 6: E70/4295, AEM Conductivity Depth Image

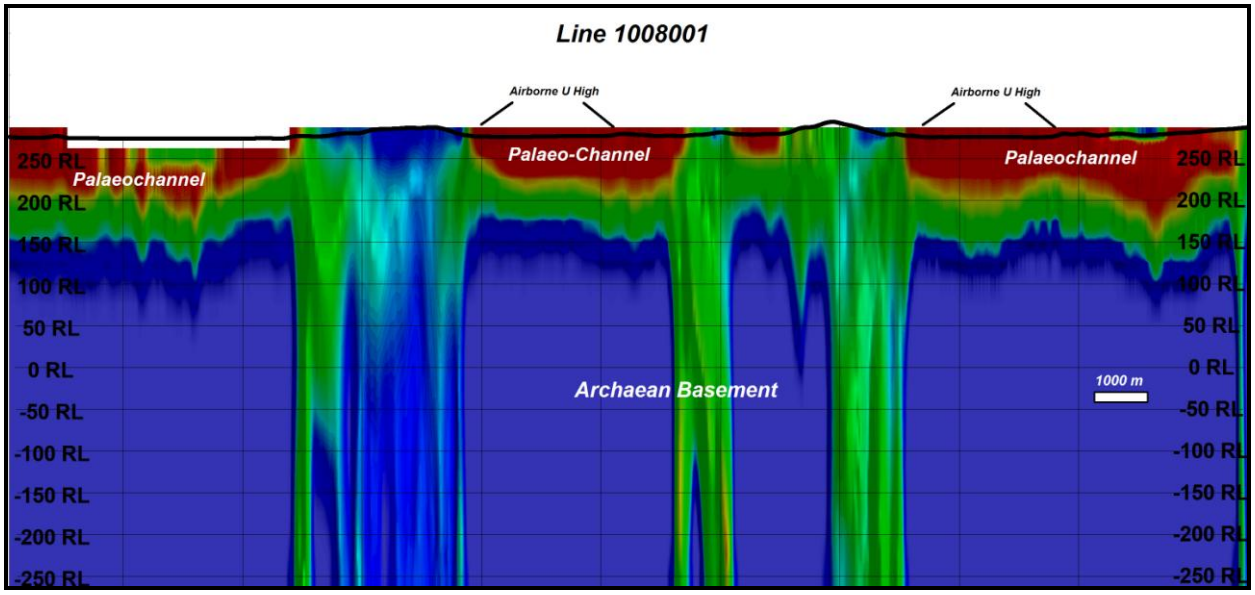

Figure 7: E59/1857 - 1858, AEM Conductivity Depth Image

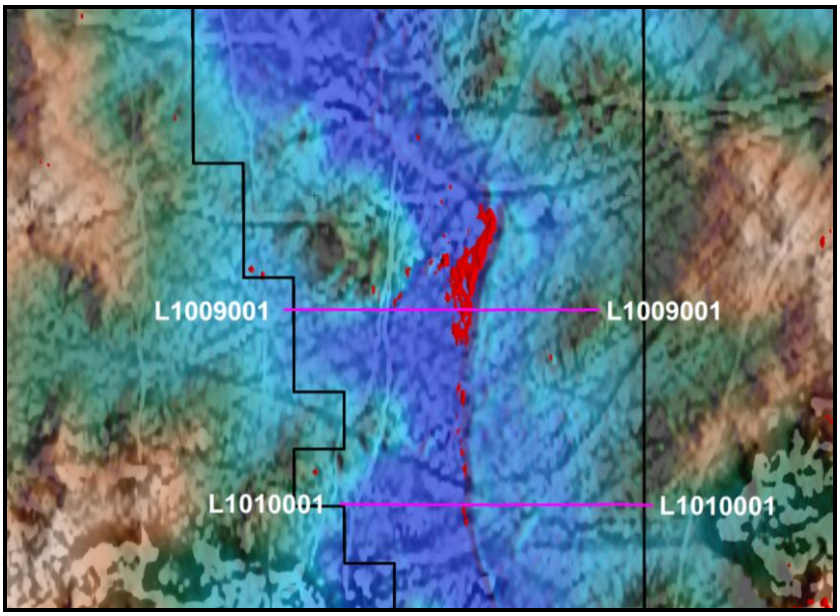

Figure 8: E70/4296, Orientation AEM Traverses over Airborne Uranium Anomaly (in red) and DTM.

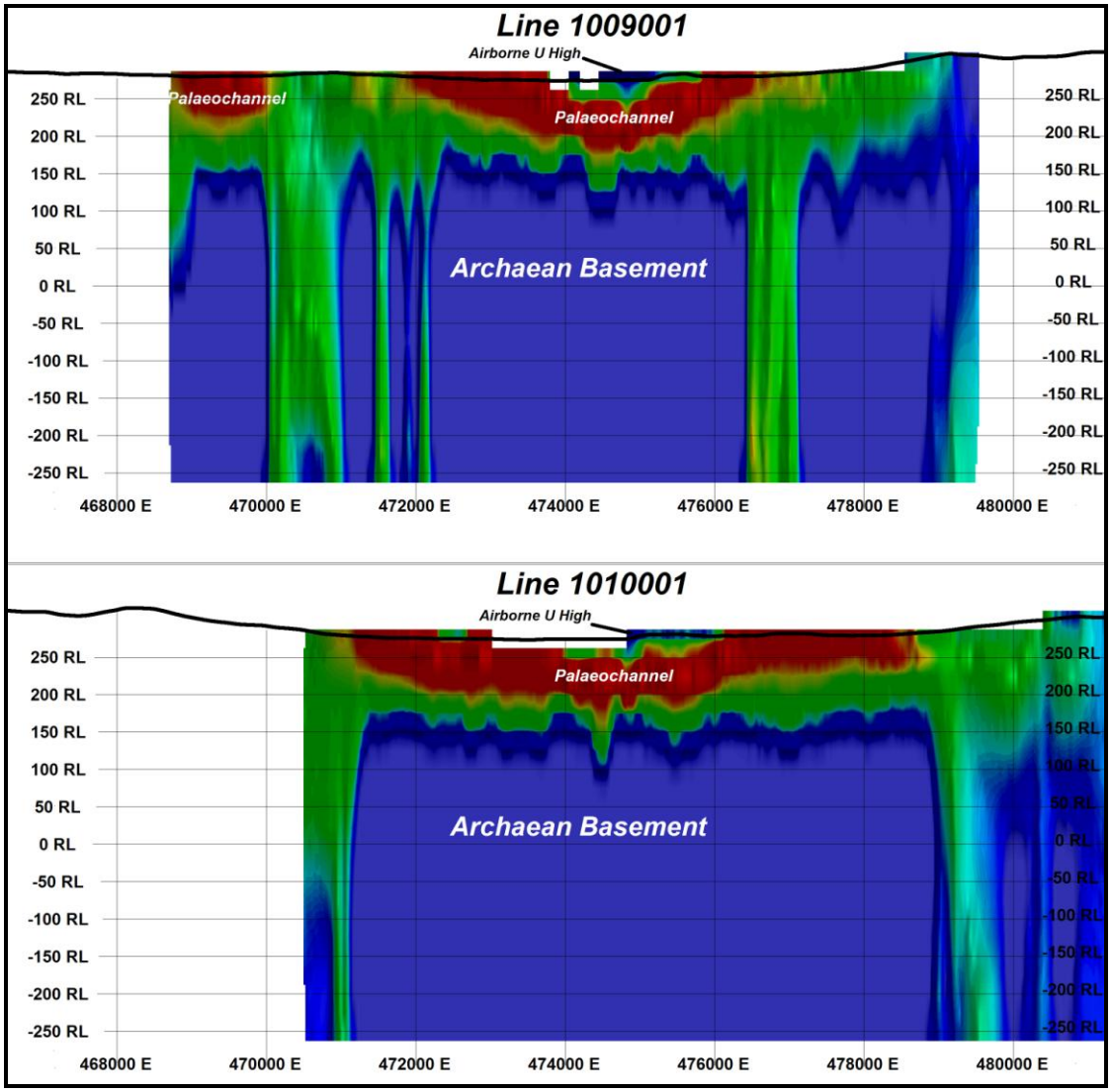

Figure 9: E70/4296, AEM Conductivity Depth Images

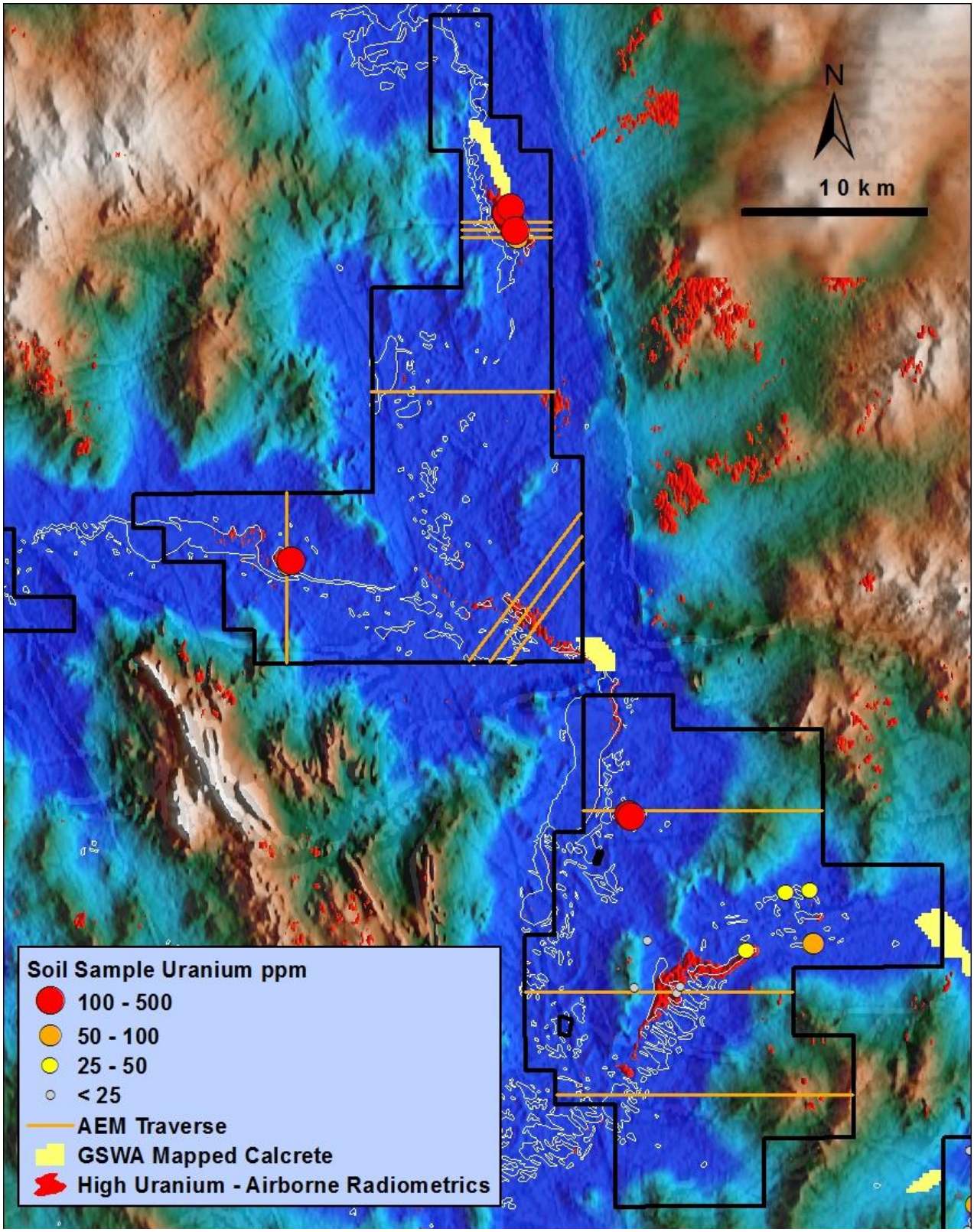

Figure 10: Peranbye Project, northern tenements, Airborne Uranium Anomalies (in red), Rockchip & Soil Assay Results, & Orientation AEM lines.

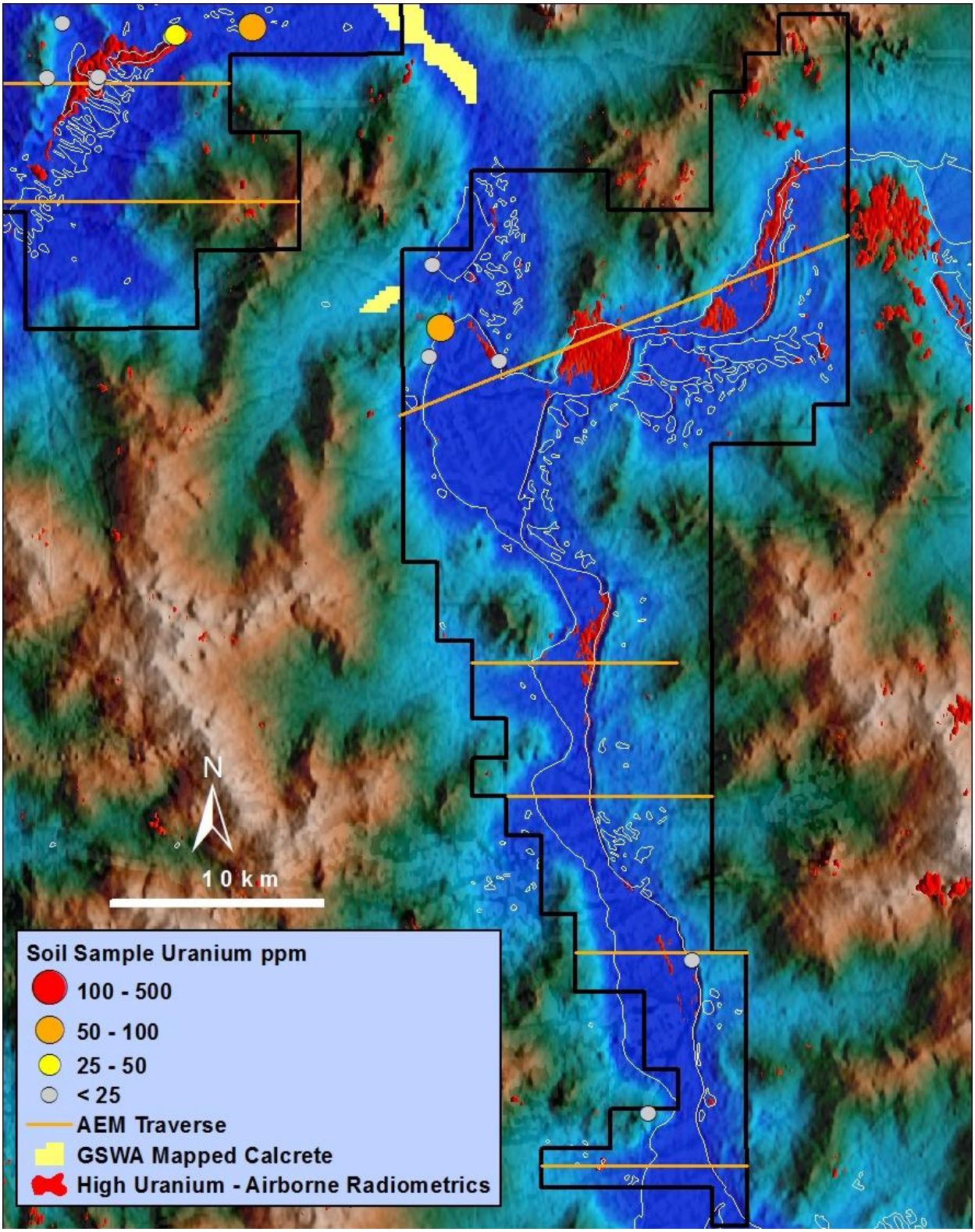

Figure 11: Peranbye Project, southern tenements, Airborne Uranium Anomalies (in red), Rockchip & Soil Assay Results, & Orientation AEM lines.

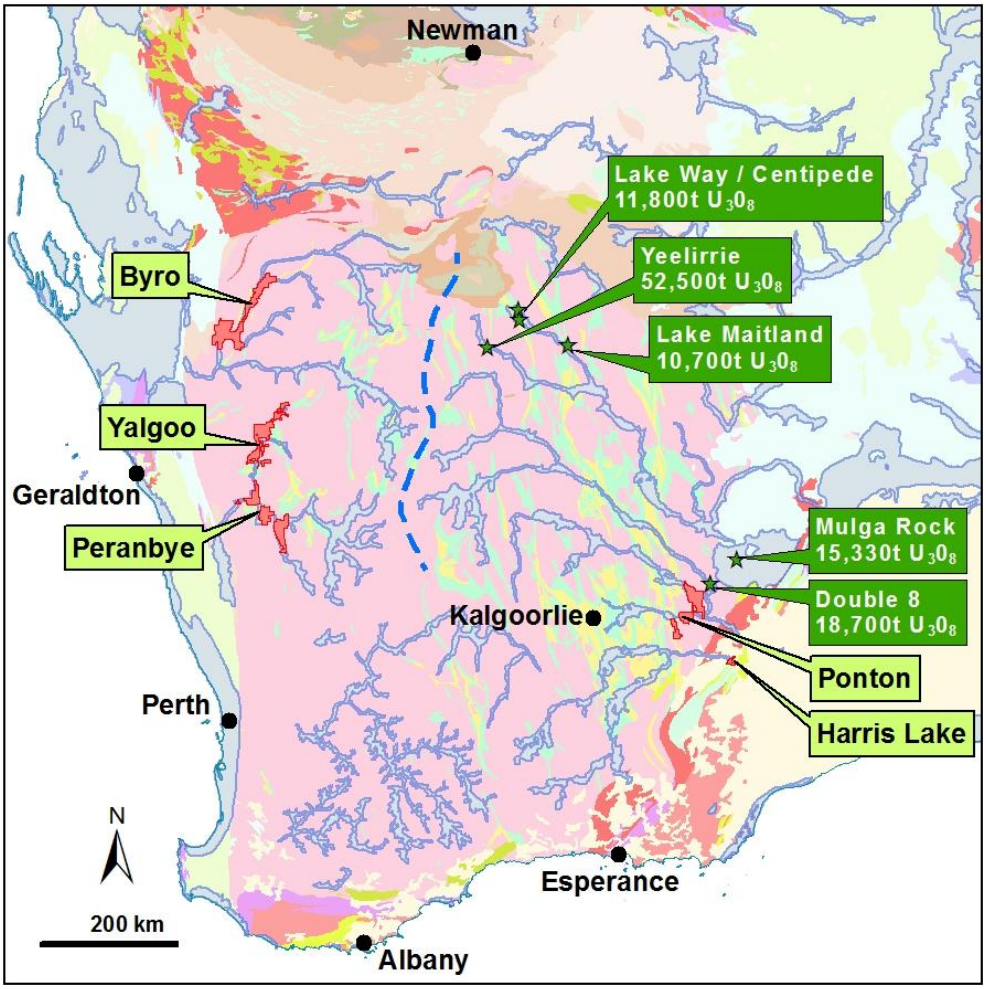

Figure 12: Location Plan of Enterprise's Uranium Projects

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Competent Persons statement
The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Trevor Saul, who is an employee of the Company. Mr Saul is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Saul consents to the inclusion in this report of the matters based on information in the form and context in which it appears.