

## W29: Tools for Mineral Exploration - Tips, Tricks, and Perf New

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**Date** Fri, Sep 06

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**Location** Crown Perth

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**Summary** This workshop explores tools that every modern mineral exploration geoscientist should understand, or at least know when to appropriately follow-up: 1) Geochemistry, 2) Infrared spectrometry, and 3) petrophysics. Data from portable and now widely adopted tools are exclusively discussed (e.g. pXRF, ASD-TerraSpec, etc). An overview of fundamental principles, best practices and practical applications are covered. An assortment of tools will also be available for demonstration during breaks.

A fourth skill, magnetics interpretation, is particularly important as exploration moves deeper undercover. The fundamentals of data acquisition and processing will be briefly covered prior to discussing how various magnetic images should be used. A step-by-step workflow on how to interpret magnetics imagery is presented, thereby setting the standard as to how to investigate most other geophysical imagery.

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**Schedule\*** This workshop is presented as four ~1.5 hour modules:

- 1) Geochemistry (e.g. pXRF)
- 2) Infrared spectrometry (with focus on VNIR-SWIR, e.g. ASD-TerraSpec)
- 3) Petrophysics (e.g. magnetic susceptibility, mass properties, p-wave velocity, etc)
- 4) Magnetics imagery interpretation

Time permitting; there is a provision to host an interactive panel of presenters at the end of the workshop. Workshop participants will be given the opportunity to discuss outcomes, the future-direction of tools for mineral exploration, and share some of their own tips, tricks, or perhaps something new.

Attendees are welcome to bring hand samples and have a further play with some of the break-time demonstration equipment. This workshop is both early career and established career professional friendly.