



CENTRAL WEST TECHNICAL MEETING THURSDAY 7th NOVEMBER 2024

Summer St Dining Room (our usual venue with a new name),
upstairs at Hotel Canobolas, 248 Summer Street, Orange.
6:00pm for 6.30pm

Dr Mark Pirlo
Geochemist, ALS

Geochemical Tools for Finding Ore Deposits in Central NSW

Good use of geochemistry to support mineral exploration and resource development is not simply looking for the highest element concentration values in a table of data. This presentation will highlight some fit-for-purpose geochemical tools that are available to explorers working in Central NSW. Whether they be targeting the traditional mineral resources that have a long history of discovery and production in the region, or the so-called new economy minerals, good use of geochemical data will enable greater insight and value from samples. It all starts with knowing the right questions to ask!



Join us for the meeting, drinks, nibbles and dinner.
For more information: cwedg@aig.org.au

Supported by



Mark Pirlo

Mark Pirlo is a Registered Professional Geoscientist (Geochemistry) and Chartered Chemist with over 20 years of postdoctoral experience. Since completing his PhD in Geochemistry at Macquarie University in 2002, he has since worked for several Australian research and development providers on mineral exploration problems and as the exploration geochemist for a major Australian gold miner. A significant part of Mark's professional career has been working as an independent consultant focused on exploration geochemistry. Mark joined ALS in February 2020 and is currently based in Brisbane but is keen to point out that he was born in and grew up in regional NSW! He is keen to promote laboratory and field-based geochemical methods and options that allow explorers to get deeper insight and greater value from their samples.

Geochemical Tools for Finding Ore Deposits in Central NSW (continued)

Geoscientists working in 2024 are broadly familiar with analyses for precious metals and multi-element suites on soil, rock and drilling samples. Analytical developments in these areas continue to be made in terms of detection limits, precision and performance. However, there remain a range of lesser-known specialised methods that can be put to effective use for some applications. Low-level soil pathfinder determinations on Se, Sb, Bi, halogen analyses, hydrogeochemistry and biogeochemistry, partial leaches, clay-fraction extractions and quantitative mineralogy approaches are just examples that will be discussed which that may be appropriate to various projects in Central NSW.

The commercial laboratory analysis process begins with quality sample preparation, to provide a homogeneous and representative sample. Then, decomposition or digestion of prepared samples enables modern, multi-element instrumental analysis. Technology advances now permit routine and commercially cost-effective analysis of elements across the periodic table. These analyses can be provided across concentration ranges to support resource discovery and production projects. The variety of laboratory methods available can be overwhelming at times. However, commercial laboratory groups are well placed to guide geoscientists towards methods that can help them address their key questions.

