



## NOTICE OF ONE DAY WORKSHOPS

### CORE LOGGING FUNDAMENTALS - TUESDAY 26<sup>TH</sup> SEPTEMBER 2018

A series of talks and practical exercises in logging core aimed at recent graduates/early career geologists. It will cover the basics of drill site operations, litho-stratigraphic logging, recording mineralisation, and sampling practices. Includes hands-on exercises in logging core from the library collection, as well as viewing core under the guidance of the presenters.

### CORE LOGGING WITH HYLOGGING - WEDNESDAY 27<sup>TH</sup> SEPTEMBER 2018

HyLogging is a tool to rapidly and consistently log the mineralogy in drill core using infrared spectroscopy. This one-day, hands-on workshop will demonstrate the benefit of using HyLogger data to empower geologists and improve core logging. Participants will review selected drill core laid out in the core library, then compare and contrast what the eye observes and what the HyLogger 'sees', to arrive at a more objective and standardised interpretation as well as reveal subtle mineralogical signatures to aid an exploration program. The Spectral Geologist (TSG) software will be used for the data analysis and licences will be provided for the day.

*There is a separate registration page for each course.*

*Note both have limited spaces  
for more information visit*

<https://www.aig.org.au/events/one-day-workshop-core-logging-fundamentals/>

<https://www.aig.org.au/events/one-day-workshop-core-logging-with-hylogging/>

# ONE DAY SEMINAR – CORE LOGGING FUNDAMENTALS

September 25<sup>th</sup> 2018

## Program

(lunch plus tea/coffee/juice is provided)

### An overview of drilling styles and logging core

Vlad David will run through the information a geoscientist needs to understand the current industry practices in drilling and logging.

### Roles/responsibilities of geologists and field assistants

Dealing with drilling contractors, government regulations and reporting, handling core (measuring, photographing, marking up) summary logs, record keeping, (core recovery, sampling, magnetic susceptibility and other sampling). (Peter Lewis)

### Litho-stratigraphic logging

A discussion of the various styles used in describing: lithologies, mineral content/textures, metamorphism/alteration, sedimentary and structural features. (Peter Lewis)

### Logging mineral resources

A short overview on the various methods and styles used to describe core with metallic ores, coal, gas, geothermal energy and industrial minerals. (Vlad David)

### Logging Exercise -

Exercise in producing a summary log(s) of cores on display (lithological units, metamorphism, alteration, structure, mineralisation). Followed by a walk through/ question-answer session with the presenters.

### Wrap-up session

## THE PRESENTERS

Vlad David and Peter Lewis are both experienced geoscientists. They have worked for geological surveys and a number of exploration companies. Vlad is a consultant currently working in Orange while Peter retired in 2016 after job on the west coast of Tasmania. They helped to organise and run a similar workshop in 2016.

**Maximum number of participants = 16 to ensure effectiveness of the practical sessions. If the seminar is oversubscribed, then preference will be given to early career geoscientists, and fees paid by experienced geoscientists will be refunded**

## SCHEDULE OF FEES

| REGISTRATION FEES FOR MEMBERS OF AIG AND GSA               | DAY ONE<br>Incl. GST |  |
|--|----------------------|--|
| Young geoscientist (< 10 years experience)                 | \$110                |  |
| Unemployed/Underemployed geoscientist                      | \$55                 |  |
| MSc or PhD student   | \$55                 |  |
| Full employment Member geoscientist (>10 years experience) | \$220                |  |

*Online registration will open in July. Please check the AIG, GSA or SMEDG website.*

## COURSE DESCRIPTION - “CORE LOGGING WITH HYLOGGING”

Melissa Quigley and Jon Huntington, together with staff from the GSNSW, will direct this training course towards postgraduate students, early career geoscientists and industry professionals. It will cover the application and interpretation of HyLogging data acquired from a selection of NSW mineral deposits housed in the GSNSW National Virtual Core Library facilities. The course will include:

- Welcome and outline of workshop (brief talk) - objectives of the day.
- Introduction to HyLogging – principles, what, why and how.
- **Practical 1.** Guided traditional core logging exercise by participants. Two drill holes from NSW ore deposits will be laid out and participants will be divided into small groups to log the core over 1-2 hours. Geological background will be provided.
- Spectral characteristics of rocks and minerals.
- Demonstration of the GSNSW HyLogger-3 in action.
- Navigating TSG-Core software (practical + talk).
- Overview of HyLogging/TSG results derived from the drill core assessed during workshop.
- **Practical 2.** Drill core analysis exercise by participants with their laptops, working through the TSG results either in the classroom or on the laid-out cores to compare and contrast the traditional core logging results and the new HyLogging/TSG results.
- Wrap-up discussion by all reviewing; the HyLogging technology, TSG-Core software, how the technology empowers geologists (NOT replace them) and how the new mineral information/knowledge extracted can be applied in the exploration and mining industry.

### **What to bring**

Participants must bring their own Windows laptop computer. Temporary TSG licences will be provided for the day. Once registered for the course, participants will be sent instructions via email to activate the software. Bring a hand lens and magnetic scribe if possible.

**Maximum number of participants = 20.** Lunch, tea/coffee will be provided.

**Registration is via the AIG website.** Note, if the course is undersubscribed, it will be cancelled and a full refund will be provided to delegates.

### **Presenters**

**Melissa Quigley** is an Economic Spectral Geologist with extensive industry expertise in the application of hyperspectral infrared mineral spectroscopy across a range of ore deposit types developed during her 15 years at CSIRO Mineral Resources and 5 years as a consultant for Spectral Geoscience Pty Ltd. Mel was an integral member of the CSIRO team that developed the HyLogging Systems and supporting geological case studies for industry and has contributed to the development of *The Spectral Geologist* (TSG) software.

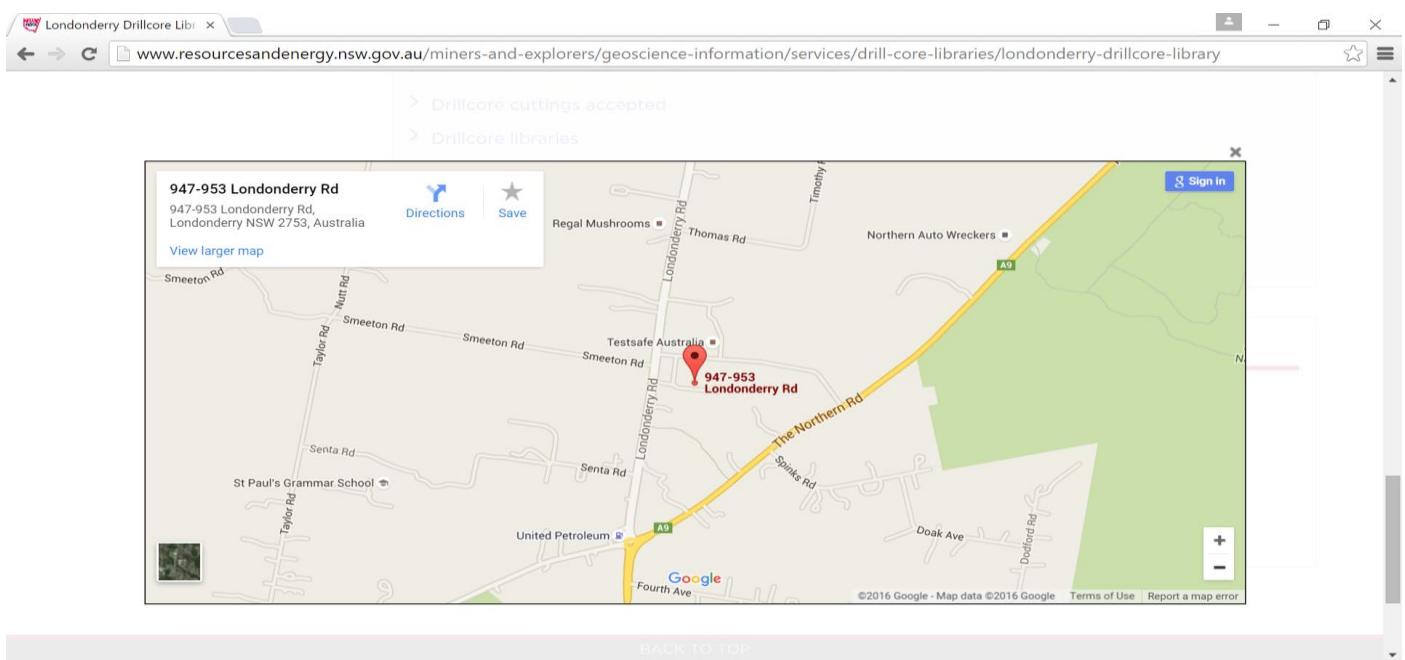
**Dr Jon Huntington** is an internationally recognised specialist in hyperspectral applications for the Geosciences, co-developer of the HyLogging Systems and TSG software and past Director of the AuScope National Virtual Core Library (NVCL) infrastructure. He is currently a CSIRO Fellow and HyLogging interpretation and training consultant to industry and the Geological Surveys.

\*HyLogging™, HyLogger™, TSG™ are trademarks of the CSIRO.

## SCHEDULE OF FEES

| REGISTRATION FEES FOR MEMBERS OF AIG AND GSA               | Incl. GST |
|--|-----------|
| Young geoscientist (< 10 years experience)                 | \$300     |
| Unemployed/Underemployed geoscientist                      | \$150     |
| MSc or PhD student   | \$150     |
| Full employment Member geoscientist (>10 years experience) | \$400     |

Online registration will open in July. Please check the AIG, GSA or SMEDG website.



## WB CLARKE GEOSCIENCE CENTRE

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