

In August's Member Spotlight we get to know James Alderman, the secretary for the Queensland branch of ASEG.

1. What is your current role?

Senior Geophysicist in the Generative Team of Rio Tinto Exploration, Australasia Region. My time is split between technical and operational support to our exploration projects and working with the rest of the generative team on new opportunities and ideas.

2. For how long have you been a geophysicist?

Just over 14 years.

3. What do you like most about being a geophysicist?

The freedom to pursue ideas would be up there. I'm lucky to work in a team that is given the scope to generate and test ideas. Seeing new places in the world is a bonus as well.

4. If you weren't a geophysicist what would you be?

Between finishing school and going to University, I spent five months living on a beach in Greece teaching sailing and windsurfing. It was pretty hard to leave that behind; it wouldn't have taken much to still be there!

5. Tell us about your best field meal?

I spent a couple of years working on diamond exploration in Mali doing FIFO from the UK. Our Operations Manager managed to employ a French trained pastry chef as our cook - suffice to say, despite walking many km of ground magnetics and gravity surveying, I still managed to put on a lot of weight!

6. Your funniest or worst field memory?

Waking up in South Africa on a drill camp to the sound of rattling tea cups. Thought someone was making tea, but looked up to find a baboon chewing on our tea bags.

7. What do you do in your spare time?

I don't have much anymore with a three year old son, so most time when I'm home is spent with him. I have seen positive changes in the industry in the 15 years I have been around, that greater importance is put on family time and mental wellbeing. When I do have free time I try to keep fit and have been addicted to Crossfit for the last few years.

8. Where do you think exploration geophysics will head in the next 10-15 years?

True transition from bump hunting to integrated interpretation, particularly in the greenfield space, and so called mature exploration areas. The options for new mineral discoveries are to look deeper, or to see something that others have previously missed. Many areas thought to be well explored will likely prove to have not been. To find these type of targets surveys will have to continue to see deeper, at better resolution and for cheaper...

On the processing side, I see there will likely be some consolidation of software and greater use of open source platforms. For a long time hard rocks geophysicists have relied on a large number of different software products, many reliant on one or two key people to develop it. I don't see this as being sustainable longer term and new generations of students are tending towards open source, more collaborative approaches.

9. What aspect of geophysics do you enjoy most?

There's nothing better than getting hold of new data after spending months planning and executing a survey and seeing if what you expected (or hoped) is there. I think all geophysicists would like to be the one that gave a name to the anomaly that becomes the next world class mine.

10. Do you think AI will take over your job or will the human element remain vital to exploration successes?

I think the human element will remain key to exploration success. I think the use of machine learning and AI is just one important aspect of making the work we do more efficient. The other is improved compilations and cleansing of historic exploration data. The old adage rubbish in, rubbish out, is no more relevant than for exploration data.

