

Environmental geophysics



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The 2016 ASEG-PESA-AIG Conference: looking back

Welcome readers to this issue's column on geophysics applied to the environment. In the last issue I gave you a heads up in terms of what to expect at the ASEG-PESA-AIG Conference, which was held in Adelaide in August 2016. You will not be surprised to discover that in this issue I'll be reviewing the conference, from the standpoint of an environmental geophysicist.

Overall, I hope that most of you who attended found the conference interesting and enjoyable, and not as depressing as

predicted given the state of the industry. I personally got a pretty positive vibe from the event (hmmm, how many of us would be in exploration if we weren't inherently optimistic?). Nevertheless, I am sincerely hoping that the economic conditions for the next conference will be better than they were in Adelaide. My thanks to all of the speakers and especially the keynotes. I think the programme got everyone thinking.

For 'new' technology on the shallow geophysics side of life I was pleased that the talks on passive seismic were as interesting as hoped (and it sounds as if the workshop was quite good as well). The passive seismic technique has been enthusiastically adopted by the minerals industry, being used mostly to remotely measure overburden thickness, as well as for palaeochannel mapping for uranium and iron ore applications. Although no explicit groundwater palaeochannel case studies were presented, it is logical to think that the method will be applied to these problems in the not so distant future.

Also, special mention for innovation on the groundwater side of environmental geophysics should be made of the development of the Australian Geoscience Data Cube (see Ken Lawrie's paper in the conference proceedings, as well as the Geoscience Australia website: <http://www.ga.gov.au/about/projects/earth-observation-and-satellite-imagery/australian-geoscience-data-cube>, and the

NCI website: <http://nci.org.au/virtual-laboratories/australian-geoscience-data-cube/>, and finally: <http://www.datacube.org.au/>). This ongoing project was originally set up to enable viewing and analysis of almost 30 years of LANDSAT data on an entire nation-scaled basis (but useful down to the paddock scale), on an integrated platform (living on one of the ANU super-computers). It is now being expanded to include a number of other large scale data sets, making them also much easier to use and analyse.

Congratulations to all of the prize winners at the conference, especially those in environmental and engineering geophysics. Tim Munday and his group from CSIRO in Perth were recognised for their work on the use of AEM to characterise groundwater in the Murchison. Regis Neroni, winner of the best talk in minerals, used AEM data collected by his company's (Fortescue Metals Group) environmental arm for hydrological characterisation. The explorers in the company (of which Regis is one) realised that these data sets could be of use in exploration. This talk (to me) was a great example of getting everything you can out of every bit of data collected. I especially liked how they used some good processing 'tricks' to enhance features in the data that they were interested in.

See you at the next conference in Sydney!!



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