



AUSROCKS
CONSULTING MINING ENGINEERS

Newsletter Summer 2018

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Welcome!

by Carl Morandy, Managing Director

2018 has been a full-on year for the Ausrocks team and I feel that this year we have seen a lot of growth and we have worked hard to consolidate what we do best. One of the highlights has been the office banter, it's never a dull moment and that's what keeps us on our toes ready to take on the next challenge.

Personally, I have thoroughly enjoyed being part of the Ausrocks team through 2018 and look forward to tackling new challenges every morning, hopefully 2019 will be just as successful.

Ausrocks sponsored the Institute of Quarrying Australia Young Members Network which included a stand at the 2018 Golf Day (see Wilma and Fed above), taking home the best dressed contest! Alan, Dale, Nick and Brice made a formidable team and I think all the water hazards on the course were shaking in anticipation.

We have spent a considerable time in the 'safety space' assisting small and medium quarry operators with all aspects of safety management. It is invaluable being able to spend time on the ground with the quarry management team to learn how each quarry

operates and put in place the most effective solutions for each site.

Brice has been working with us for most of the year with plenty of interesting quarry resource projects keeping our Geology of Queensland knowledge sharpened. Brice spent many long days walking in the bush during 2018 and has earned a break from looking at rocks over Christmas.

In October we welcomed our newest employee Bill Taylor (see page 4 bio). Bill has been getting to know our projects and brings a wealth of experience to the team.

Ausrocks celebrated our Christmas Party at the Paddo Tavern followed by an evening at the Comedy Club. A good way to end the year on a high with laughter aplenty – memorable moments include 'AusRock charity rock concerts' and 'since the war'.

I think we have all earned a good Christmas break and I hope everyone takes the opportunity to spend quality time with family, stay safe and have a Merry Christmas!

Please note our office closed Friday 21/12/18 and will re-open Monday 07/01/19.

IQA Young Members Network Study Tour

Carl popped over the ditch for the Institute of Quarrying Young Members New Zealand Study Tour.

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IQA Young Members Study Tour to NZ

by Carl Morandy

In July this year as part of the Institute of Quarry Australia I was lucky enough to squeeze in the Young Members Network Study Tour to NZ.

The jam-packed trip commenced in Auckland where we had a 'getting to know you' session which included an Escape Room. After being stuck in the Escape Room's close confines the bus felt quite roomy as we ventured to the Otuataua Stonefields. The area is rich with history and being able to walk over remnant volcanoes was an interesting experience. It was amazing to see how far quarrying has progressed with the surface area of the entire stonefields making up a similar area that would supply Auckland for a year. After the stonefields we jumped back into the 21st century where we visited two of the largest extractive sites in Auckland, Winstone's Hunua Quarry and Stevenson's Drury Quarry, which are both greywacke deposits extracting upwards of 2 million tonnes per annum.

From Auckland we travelled to Hamilton where we would stay for the remainder of our trip. From our base we travelled out to Temata Quarries south of Raglan where for many years a small basalt quarry operated in isolation. One day a company approached the landowner wanting to install a windfarm on the adjacent land, which worked out perfectly because the development required significant quantities of aggregates and roadbase. This is a perfect example of reducing your 'distance to market'.

We also visited various suppliers to the industry and other quarries while in Hamilton before hitting the 2018 Institute of Quarrying NZ Conference. The conference is set out differently to Australia with a greater focus on professional development (which is mandatory in NZ) so a lot more operators were in attendance.

We concluded the trip by flying back to our respective homes having obtained an insight into the NZ quarrying industry which will no doubt help us in our own professional development.



Winstone's Hunua Quarry



Wind Farm Makomako

The Perfect Fit

by Nick Virisheff

Since the Mines Department's refocus on respiratory diseases in the mining and quarrying industry with the introduction of QGLo2, the industry has been quick to respond and compliance with the new guidance note has been generally very good. Many operators have noted their need to provide additional PPE to workers for certain tasks, with special respirators for maintenance work being amongst the key items, such as Powered Air Personal Respirators (PAPR).

But it's not just enough to provide a PAPR kit to your employees, they need to be checked regularly to ensure the fit is personalized to each worker, otherwise they may not work as intended and then you're not getting the benefit of what can be a significant investment in your sites PPE. Fit testing is also a requirement by Australian New Zealand Standard AS/NZS1715 before a worker wears a respirator on the job and should be assessed at least annually.

Qualitative fit test kits are available from companies such as 3M and you don't need special qualifications to conduct testing. The test only takes a few minutes and will keep your workers safe, and help keep your site compliant.

Autonomous Sand Mining Operations of the Future

by Alan Robertson

The well-designed Quarry Solutions' sand mining operation at Doonbah (Evans Head Sand) with an approved capacity of 450,000t/a is a major step towards a full autonomous operation. The 300t/h dredge itself built to Quarry Solutions specifications is autonomous, the winch driven dredge path being GPS controlled as well as the automated tonnes/h and sand to water ratio being delivered to the wash plant.

For a future fully autonomous quarry operation, technical software for automation capability of the wash plant operation which is integrated with the dredge throughput is already available, resulting in management of the quality and monitoring of the washed product including moisture content. A fully automated sand underclaim system at the automated radial stacker discharge location will be triggered by the arrival of an autonomous road truck, the unloaded scanner recognising the truck and its load limit and then loading it prior to the driverless truck heading to its planned destination. The load quantity and moisture content is automatically sent to the office for invoicing. The system will allow the Quarry Manager to run two quarries at the same time, any failures or alarms at the operation being detected on his or her mobile phone whereby the system will automatically shut down and the problems rectified by competent personnel. Scheduled site clean ups and equipment maintenance will also be required using site personnel.

A special thanks to Quarry Solutions Pty Ltd and Evans Head Sand Pty Ltd for letting us include this article.



CMIC 2018

by Dale Brown.

The Institute of Quarrying Australia (IQA) and Cement Concrete & Aggregates Australia had their biannual Construction Materials Industry Conference (CMIC) 2018 down in Sydney. I travelled down on the Wednesday to attend the Industry Innovation Day which had 23 short TED-style talks covering issues from mental health, developing talent, safety, survey, maintenance, technological advances and environmental compliance. There were 28 exhibitors with impressive equipment displays from Antec Concrete, DrumBlaster, Hitachi and Komatsu. The evening then lead into the Hitachi welcome reception drinks catching up with familiar faces and a few new too!

Thursday morning commenced the start of the formal proceedings of the conference and lead straight into "Setting the Scene" with the Macroeconomic side of construction materials which was followed by Janine Perrett highlighting the current political environment of Australia. After morning tea all the gadgets came out in the future and innovation segments showing how 3D printers and virtual reality could be used to the advantage of the construction materials industry.

After a tasty sandwich, the afternoon sessions began, and the speakers conferred over energy markets where security policies and renewables were on the agenda before the construction material market and the ongoing infrastructure issues associated with overpopulation in Sydney were centre stage. The afternoon was capped off with the IQA presentation and membership pledge.

Thursday night was the Komatsu Gala Dinner where we were treated to networking drinks sponsored by Landair Surveys on the ferry to Luna Park. The gala dinner did not disappoint with everybody dressed up to the 9s.

The Friday started the same way we finished on the Thursday, with the IQA Operator and Managers of the year received awards.



Discussion then turned to Community & Environment and how simple steps and processes can be put in place to ensure ease of operations, which lead into a middle session discussing keys to utilising a diverse workforce to come up with creative solutions and how to overcome adversity. To cap off the conference there was a business leaders lunch unlocking the essentials in delivering cost effective and efficient delivery of infrastructure.

The main theme of the three days were ways to reduce bottlenecks we as industry face as we are gearing up for one of the biggest infrastructure booms in Australian history which will be peaking at over \$16B per annum in 2019 and continue for the next 7 to 10 years.

On the whole it was a very informative three days in Sydney with a great effort from all of the organizers, exhibitors, presenters, award winners and sponsors.



New Staff - Bill Taylor

by Bill Taylor

Role: *Snr Environmental Manager, Ausrocks Pty Ltd*

Qualifications: *(M.Sc Geography, B.Sc Hons Resource & Environment, Diploma in Pollution Control. Coal Mine Managers 1st Class Certificate of Competence, (UK, NZ, QLD, NSW & WA) Post Grad Cert in Secondary Education, Graduate Diploma in Higher Education. Fellow of the IQA.*

About Bill: I started my career in the minerals industry as a Coal Miner in the early 1970's progressing through the ranks and obtaining my Coal Mine Managers 1st Class Certificate in 1984. During the intervening time I was a Faceworker, Mine Deputy and Oversman as well as member of the Mines Rescue Brigade and Captain of the Mine First Aid Team.

As a result of the industry contraction in the UK I left to take up a position in silica sand quarries where I managed operations for a number of years before moving to New Zealand.

My first role in NZ was that of an Inspector of Mines and Quarries leading to a role as a Senior Advisor, High Hazards Mining for the NZ Government. I then moved to Australia where I continued as a Mines Inspector before taking up a role as the Underground Mine Manager at Crinum Mine.

Returning to the UK in 2013 I trained as a Secondary School Geography Teacher before taking up the position as a Snr Lecturer with the Centre for Mineral Products at Derby University. In 2018 I returned to Australia where I joined Ausrocks in October 2018.

Interesting Signs & Safety Procedures



As Christmas time approaches everybody ensure they drive safe on the roads, but these signs in South Australia have missed the point..... (or maybe they didn't)



If you come across any weird or wacky signs, feel free to email them through to info@ausrocks.com.au

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