



## **AUSROCKS NEWSLETTER No 21 Summer** **2016/2017**

### **Welcome...**

As another year comes to a close for many of us at Ausrocks it feels like 2016 has flown by at a great rate of knots! There have been plenty of highs and lows and for myself it has been a steep learning curve since becoming Managing Director on February 3. The quarry industry has been in a lull for a while now but it feels like there is a slow build up and everyone is looking forward to a busy 2017. We are expanding our reach in the small mining and quarrying industry with plenty of new contacts made and a few blasts from the past coming back onto the scene. Ausrocks has maintained our commitment to training the next generation of industry professionals with three students working with us this year (Alexandra Machunter, Patrick Lau & Alex Marinelli). Ausrocks has also continued to support the Institute of Quarrying Australia through dinner meeting sponsorship and the Young Member Network through event organisation.

I think we are all looking forward to the Christmas break and I hope everyone takes the opportunity to spend quality time with family, stay safe and have a Merry Christmas.

From **Carl Morandy, Managing Director**

The Ausrocks office will be closed for the Christmas Break. The last day of operation is Thursday 22 December and the first day back is Monday 9<sup>th</sup> January 2017. For urgent assistance over the break, please contact Carl Morandy on 0404 778 394.

Ausrocks and Caged Rock would like to wish all of our clients, sub-consultants, suppliers and their families a Merry Christmas and a Happy New Year.



The last six months have been a consolidation and growth phase for Caged Rock. There has been a focus on developing our products, product quality and providing a number of options for our clients. Our new product range includes our gabion letterboxes. The letterboxes are made of 2mm steel and can be constructed by "do it yourselves" (DIYs). The photos below show the "render" produced from site photos by Nick Virisheff, the Caged Rock fabricated letterbox gabion and the finished DIY product. All Caged Rock products use Australian made components. If you want to see some of our gabion products or discuss your requirements, do not hesitate to visit the Ausrocks office at Sumner Park or check out our Caged Rock website.

[www.cagedrock.com.au](http://www.cagedrock.com.au)

Ring 07 3376 6839 and ask for Alan or Nick. Caged Rock closes for the Christmas Break from Friday 16<sup>th</sup> December until Monday 9<sup>th</sup> January 2017. You can contact Nick on the office number until 22 December and the phone will then be diverted to Alan Robertson (0402 445 418).



**Render of Letterbox Gabion as supplied to Client**



**Fabricated Letterbox Gabion in Caged Rock Workshop**



**Letterbox and Retaining Wall in Final Stage of Construction**

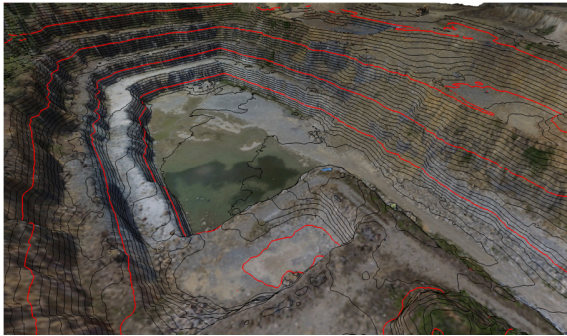


## **“Clever Innovation in the Mining and Quarrying Industry”**

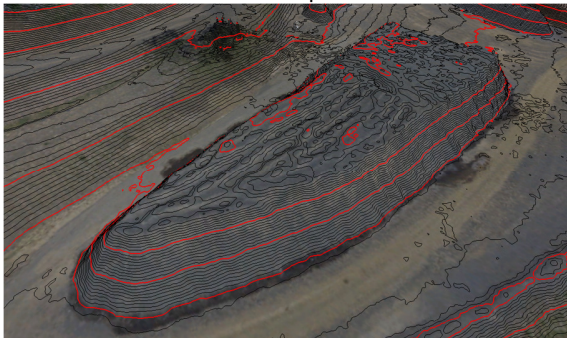
### **Ausrocks utilizes Drone Technology**

In December 2015, we purchased a DJI Phantom 3 Advanced Quadcopter to trial site, stockpile and geotechnical surveys for a number of clients. In just over a year we have completed over 40 flights for 20 of our clients. Benefits of utilising drone technology are:

- Using the drone survey method can be more cost effective than the traditional LiDAR survey, with detailed maps being created in a fraction of the time.
- The drone survey system can be deployed much easier and quicker than traditional systems allowing for quick response in remote locations or difficult terrain. This is particularly important for geotechnical inspection and rockfall/landslide investigations.
- Multiple data can be gathered by the drone at same time including photography and video.
- The flexibility of the quadcopter allows for access within tight spaces (around vegetation or infrastructure) and the flight path can be controlled within the subject land to minimize privacy concerns associated with fixed wing drones.
- All information can be instantly uploaded to a server where it can be accessed by authorized individuals.



Pit Development



Detailed Stockpile Survey



Excellent Clarity



Aerial Photo Taken



3D Photogrammetry Render

We use a DJI Phantom 3 Advanced quadcopter with 2.7K camera and GPS+GLONASS Dual Positioning Module for more accurate positioning. Flight time is between 15-20mins per battery and with 4 batteries a large area can be covered in a small amount of time. It also has ability to maintain relative positioning even when GPS satellite signal is weak, using its Vision Positioning System with ultrasonic sensors (capable of positioning without GPS). It is also capable of recording aerial videos for inspection of geotechnical stability in inaccessible areas.

A risk assessment is undertaken prior to any work with checks of the proximity to airports and other sensitive sites with the Civil Aviation Safety Authority notified prior to flight. An assessment of the area required to be surveyed is completed, with the number of flights, elevation and photo spacing determined. The site is flown at a set elevation with a photo overlap of >60%, multiple flights are made where the site is elongated or spread out. The photos are then submitted to an online processing service with the output generated within hours. The data can then be directly interrogated within the web service to obtain stockpile volumes or otherwise the data is downloaded for input into GIS software for planning and design purposes.

Using our drone capability in-conjunction with Ausrocks' vast experience in the mining and quarrying industry will deliver a real time results and slashes turnaround time by up to 50% compared to traditional land surveys. We deliver outputs in soft or hard copy or in any other preferred format as requested.

For further information regarding our Drone Capabilities visit our website <http://www.ausrocks.com.au/> or contact the Ausrocks Office at (07) 3376 6839 or **Carl Morandy on 0404 778 394, Adebayo Bayooke on 0450 320 600 or Dale Brown on 0437 833 253.**

## **Second Annual IQA/DEHP Environmental Management Seminar**

By Adebayo Bayooke and Dale Brown

Adebayo and Dale attended the 2nd annual IQA/CCAA Environmental Management Seminar on the 14th of September 2016. Although there were a number of interesting presentations, Ausrocks focused on summarising the keynote presentation by DEHP on their new Compliance Prioritisation Model (CPM). The CPM is used to determine which sites are inspected. These are prioritised into:

- Band 1 – Most important sites to visit
- Band 2 – Less important sites to visit
- Band 3 – Least important sites to visit

These lists are generated quarterly, with the aim of the department to visit all of the Band 1 sites within that designated quarter. The CPM uses both Environment, Client and Location risk factors:

- AES Score
- Environment Value Type
- Consequence Event Occurring

Client Risk also factors significantly which is defined by:

- Number of licensed locations
- Number of Inspections in the past 12-24 months
- Prosecutions against clients
- Active enforcement actions against client
- Outstanding annual returns
- Outstanding fees duration
- Outstanding Financial Assurance.

Client Risk also considers ALL ERA's that are being undertaken by a client, for example if you manage 5 quarries, of which 4 are well-run and compliant but 1 is non-compliant. ALL of the quarries are considered to be a higher client risk.

Location Risk

- Date of Last Inspection
- Last Inspection Outcome
- Current active statutory Enforcement Action at site
- Enforcement Action in the past 12 months at site.
- Operational Status (e.g. Decommissioned, Care and Maintenance, Operations Not Commenced).
- Suspended/Cancelled EA or overdue fees.

DEHP are also implementing a digital platform called "Connect" that will allow people to apply and pay for Environmental Licenses with the aim to streamline the approval process and minimize the paper based manual processing.

To ensure that your mine site or quarry is compliant with legislation regarding Quarry Development Plans, Site Based Management Plans, Stormwater Management Plans, Dust Management Plans, Traffic Management Plans, Financial Assurance Calculations and associated Plan of Operation call **Ausrocks on (07) 3376 6839 or contact: Carl Morandy: 0404 778 394, Adebayo Bayooke: 0450 320 600 or Dale Brown: 0437 833 253**

## **Equipment News**

By Alan Robertson

The L-MUVA underground mine service vehicle is a long-awaited low profile vehicle by the mining, tunnelling and construction industries. Developed by Adit Engineering in Townsville, the unit meets a number of requirements that have been identified by the mining industry for the last four decades or longer. As the Underground Manager at Renison tin mine in the 1980's I recognised the shortfalls of the utility vehicles produced by the major vehicle manufacturers as a result of the conditions of the roads, the operators and the overall mine environment. Major issues were the brakes (in those days drums all round with discs early in the 1980s), electrical (wiring too complicated and affected by water), body corrosion and mechanical failures, mainly due to operator errors.

The L-MUVA ticks all the boxes for a tough service vehicle for underground mining, tunnelling and civil applications due to the elimination of high maintenance componentry found in conventional equipment. This includes the elimination of a gearbox, drive shafts, brake calipers and brake pads, torque converter, universal joints and CV joints. The standard model is fitted with a 4m<sup>2</sup> tray and carries in excess of 2t. Modular attachments include:

- Scissor lift
- Explosives handling unit
- Personnel carrier
- Water tank, fire fighting monitor
- Fitter plant maintenance module
- Transport support for fuel and consumables.



L- MUVA profile (photo by Adit)



Chassis and Running Gear (Photo by Adit)

For more information contact Adit Engineering 07 4755 5222.

or ring Stephen Thompson [www.l-muva.com](http://www.l-muva.com) 0475 637 222



## **Sand Projects**

Ausrocks has been involved in both heavy mineral sands and Extractive Industry sands for many years. Initial work was in Moreton Bay with John Siemon and following this on North Stradbroke Island. Since those early days Ausrocks has built up a large clientele of sand clients and our capability includes:

- Applications for tenure including EPMs and MLs.
- Sand resource drilling/excavating and associated resource estimate.
- Quarry development applications (DAs)
- Quarry design and preparation of associated Management Plans.
- Quarry Feasibility Studies and Valuations.

Recent work by Ausrocks has involved sand quarries associated with the Pacific Complete upgrade of the Pacific Highway from Woolgoolga to Ballina from 2017-2021.

## **Rally Car under Construction**

By Alan Robertson

The Renault 10 vehicle is reaching the final stages of restoration. Sincere thanks to Mobile Conveying Services for the electrical upgrade and to HondaCare Sumner Park for the mechanical upgrade.

## **Town Planning News**

By Wendy Wood

### **Draft South East Queensland Regional Plan:**

Being home to almost 3.4 million people, South East Queensland is the economic, social and cultural hub of Queensland and has experienced significant growth since the early 2000's. The South East Queensland Regional Plan (SEQRP) was introduced in 2009 and has now had an upgrade in the form of *ShapingSEQ Draft South East Queensland Regional Plan October 2016*.

SEQ Council areas include; Noosa, Sunshine Coast, Moreton Bay, Brisbane, Redland, Logan, Gold Coast, Scenic Rim, Ipswich, Lockyer Valley Toowoomba and Somerset. South East Queensland is expected to have an increase of two million people by 2041 and from a planning perspective ShapingSEQ attempts to manage this growth. This includes unlocking land that has been identified for urban development.

So how does this help the quarrying industry? There will be significant increases in the regional rail network, extensions to Brisbane's busways, extensions of passenger transport trunk services to major greenfield growth areas and upgrade of existing trunk corridors. There will also be significant increases in the density of cities and towns that will require building materials for new dwellings and new infrastructure.

With 8200 hectares of new urban land set to be released with the implementation of ShapingSEQ, 2017 is set to be a good year.

**For Town Planning enquiries, please contact Wendy Wood at 32 Cottman St, Buderim, QLD 4556: Mobile: 0418 405 006 Email: [wendy.wood@ausrocks.com.au](mailto:wendy.wood@ausrocks.com.au)**

## **Ausrocks and Caged Rock Support Students from the University of Queensland and University of Technology**

Current students from the University of Queensland and University of Technology include Alex Marinelli (Bachelor of Environmental Engineering) and Natascha Kotze (Bachelor of Civil Engineering). Students gain experience in engineering (Ausrocks), fabrication (Caged Rock) and installation (Caged Rock) and days worked under the supervision of a Professional Engineer count towards their 60 days of professional practice, a requirement for their degree. Ausrocks congratulates Camo Hood, who worked on gabion construction, on his recent employment with the Brisbane City Council.

On 4<sup>th</sup> October Scott Smith joined Caged Rock as part of an initial 13 week trial from Disability Employment Service through Epic Employment Service Inc. Scott is a general labourer in the workshop and is employed under the Federal Government's Wage Subsidy Placement Scheme.

### **For more information on Ausrocks and Caged Rocks:**

Visit: 17/71 Jijaws St, Sumner Park, Q4074

Ring: (Office Hours) 07 3376 6839

Ring: (After Hours) 0402 445 418 (Alan) 0404 778 394 (Carl)

Email: [alan.robertson@ausrocks.com.au](mailto:alan.robertson@ausrocks.com.au);

[carl.morandy@ausrocks.com.au](mailto:carl.morandy@ausrocks.com.au)

Our Web-site is: [www.ausrocks.com.au](http://www.ausrocks.com.au)

Caged Rock: [www.cagedrock.com.au](http://www.cagedrock.com.au)

## **Interesting Signs and Safety Procedures**



If you have a funny sign or a sticker or a photo involving safety (or if it is just funny) that is just not quite right, please send to: [Alan.Robertson@ausrocks.com.au](mailto:Alan.Robertson@ausrocks.com.au)