



The Institute of Quarrying New Zealand Inc

IoQ QUARTERLY NEWSLETTER

Issue No. 36
December 2013

Executive Committee 2013/14:

President:

Mr Gordon Laing

Vice President:

Mr Les Ward

Immediate Past President:

Mr Gavin Hartley

Board Members:

Mr Murray Discombe

Mr Andrew Mahan

Mr Peter Morgan

Mr Chris Sinclair

Mr Tony Carpenter

Mr Dean Torstonson

National Secretary/Treasurer:

Mrs Christine Dodds

President's Note



Summer is well and truly underway with plenty of warm weather (and rain – in parts) hitting us throughout the country. In some regions business is picking up, whilst in others it is fairly static. Hopefully most of you will return from your well deserved Christmas holiday break, with orders a plenty. Take the time during the break from work to relax, unwind and catch up with family and friends.

The executive has had one meeting since the last newsletter. This was held in the Northland Branch region at Whangarei, the venue for the 2014 Quarry NZ Conference. In conjunction with this meeting there was also a meeting with the Local Conference Committee to update and discuss the conference. They certainly have included some strong local ideas for the programme and are well underway with preparations for next year's conference. A call for papers has been advertised in the December/January issue of the Quarry NZ Magazine and on the IOQ website.

I know that there have been a few local branch activities over the past month. These include:

- The Northland Golf Day.
- The Auckland Branch Charity Christmas Dinner, where Murray Harvey was this year's recipient of the Blackwood Shield for outstanding contribution to the Auckland Branch.
- The Waikato/ Bay of Plenty Christmas Function.

I understand that these were all well attended and on behalf of the Institute of Quarrying New Zealand (Inc.), I would like to add my thanks and appreciation to all of the sponsors of these events, without whom, it would not have been possible for these activities to take place.

The Quarry Industry Working Group (QIWG) has sat twice to date. The first one on the 31 of October was attended with representation from IOQ, AQA, MBIE, Minex and MWC (Minerals West Coast). This meeting was to understand the purpose of the QIWG and its

objectives as well as a chance for Tony Forster (Chief Mines inspector) to outline his expectations for the group.

The second sitting was held on the 29 November to give definitions to quarrying, alluvial etc and who is covered by this new process. Also covered were the establishment topics that will be covered by the Guidelines.

In the New Year we will be sourcing material to establish good guidelines and supporting documents that will work well for all quarries and will support best practise in our industry.

Chris Sinclair (and in his absence, Gavin Hartley) have attended The Extractive Industry Governance Group for the TRoQ for the industry, under MITO. There will be more information for consultation early in the New Year. Our thanks to both Brian Bouzaid & Bruce Taylor, who continue to work hard for the industry as its representatives on the MITO board.

During November, I managed to catch up with Mike Phillips (IQ UK – General Manager) to discuss the CPD programme and the auditing

process required. I am pleased to report that IOQ NZ is well on track, particularly with our on-line CPD programme. All current members can access this through the members' log-in section of the IOQ NZ website. The next step for our CPD programme is to appoint auditors for the programme.

A reminder that the International Presidents' meeting for 2014 is being held in April. The executive will also be looking for any nominations for the Caernarfon Award by February 2014. IOQ NZ is looking to retain the Caernarfon Award, which its members have now won for the past three years!

Caernarfon Award: This award is presented annually for the best paper given at an Institute conference, seminar, meeting etc. anywhere in the world, which is adjudged to have contributed the most to the advancement of some aspect of the industry – either technical, environmental, strategic etc.

Finally, a **Very Merry Christmas** and a **Happy & Safe New Year** to you and your families.

Kind regards,
Gordon Laing
IOQ President 2013 - 2015

AUCKLAND BRANCH CHRISTMAS EVENING

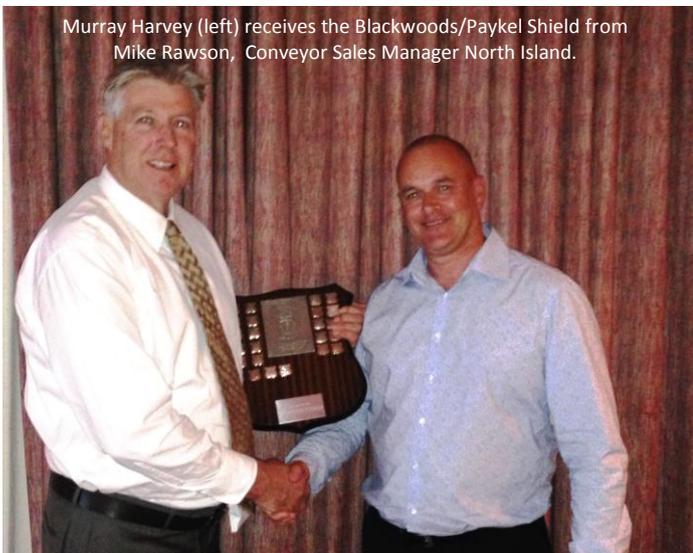
Article by Murray Discombe

The 2013 Auckland Branch Christmas function will be remembered for a number of reasons.

Just as Chairman, John Quayle was delivering his welcome address to the IOQ function, the hotel's fire alarm sounded signalling a fire evacuation drill. Who would have thought it? However, that's part of H&S Management these days. Many of us simply headed outside to the assembly area glasses of wine or beer in hand and continued to chat. Hotel staff were very helpful and polite about it all. Then we were ushered back in to the Crown Plaza, and a superb dinner was served.

It was sure good to welcome Murray Smith (Whangarei IOQ Branch Chairman) accompanied by a group of supporters from the north, who made the trip down.

Murray Harvey (Applied Conveyor and Polymers Ltd) secured the Blackwoods/Paykel Shield for "outstanding contribution to the Auckland Branch throughout the years" – well deserved. A thoroughly decent bloke who has supported the quarrying industry and our Auckland IOQ Branch for almost 20 years.



Murray Harvey (left) receives the Blackwoods/Paykel Shield from Mike Rawson, Conveyor Sales Manager North Island.

When the Membership Certificates were handed out to new IOQ member, it gave us an opportunity to see the winners of the "Best Technical Paper at Conference" – the team from Redbull Powder Company, Bastow, Leemeyer, Tavioni, as well as latest Auckland Branch committee member, Nathan Gibbons. Always nice to receive the professionally calligraphied certificates!

After desert the charity raffle was drawn – Steve Ellis was the winner of the last ticket, and chose to donate to the Prostate Cancer Foundation of NZ – a great cause

indeed.

While some disappeared early, many stayed on, dancing to the Dj's music, or "catching up with friends". Overall another great evening. Many thanks to all of our sponsors, particularly to Porter Group as major sponsor once again.

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WAIKAIA GOLD LTD'S GOLD RECOVERY PLANT

Article by Peter Morgan

Waikaia Gold Ltd's Gold Recovery Plant has begun its six year journey from Freshford to the Dome Burn near Waikaia in Northern Southland. The Waikaia area was extensively dredged between 1901 and 1922 with production recorded at over 100,000 oz of gold. The dredges of old were limited to extracting the gold bearing basal wash to a maximum depth of 7.5m on the both sides of the valley, depending on the location.



With the use of modern sheetpiling and de-watering techniques WGL has been able to access the basal wash in the middle of the valley. The wash is 3.5 to 4.0m in depth and typically lies underneath 15.5m of overburden. This overburden consists of tightly packed silty gravels, very permeable younger gravels, Matura silts and topsoil.

Linton Contracting broke ground on the primary access road mid March 2013. Since then the project has rapidly progressed to a fully operational alluvial gold recovery operation in a matter of months.

The sheetpiling placement began in April and the de-watering operation began in May. The bulk of the initial starter pit (246,000bcm) was excavated to stockpile during June & July and the GRP components started arriving on site at the end of July. The GRP was assembled and commissioned in September with 24hr/day operations starting on the 1st November.

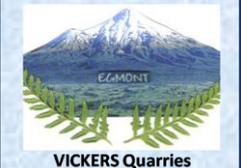
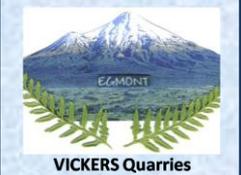


Rosco Contractors of Reefton have a large fleet of earthmoving equipment on site to ensure that the overburden removal stays ahead of the GRP's wash requirements. The GRP is currently processing 100bcm/hr of wash however this will increase to approximately 130bcm/hr once the fine tuning has been completed. Rosco's are

currently removing approximately 1000bcm/hr to stay ahead of the GRP's progress up the valley. To maintain this rate of progress, Rosco employs a Hitachi EX1200, an EX520 and an EX240. Working with the excavators are 3 x Hitachi 70t Rigids, 3 x Bell 50t ADT's and two Volvo A40 ADT's.

The GRP is fed by an EX870. The GRP uses a 2.7diameter trommel screen for the initial processing of the wash. The tailings are discharged to the depleted pond on a 1200mm wide conveyor. On-board power requirements are taken care of by a 670kVA Onis Genset, powered by a Perkins diesel.

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Without the use of the sheetpiling to cut off the subsurface flow of water, this depth of extraction would not be economically viable. WGL purchased a Bauer RTG RG 19T sheetpiling rig from the UK for this project. This rig is powered by a 550kW Cat motor and can exert a force equivalent to 100 tonnes to drive the piles 10 to 12m into the underlying gravel layers. On average, it takes about 90 seconds to drive a sheet. Each sheet weighs approximately 1100kg and there are nearly 2500 sheets used on the site.



The sheetpiling is used to ringfence a cell. The cells will average-out about 200m x 200m, or 4.0ha each. After completion of the ringfence, the cells are de-watered by two or three point wells installed down to a depth of 8.0m. Once de-watering is complete, the overburden stripping operation can then move into the cell. Although the sheetpiling cuts-off the inflow of

millions of litres of groundwater, there are still three pumps running continuously at 140l/sec to maintain the pond water level. The water is pumped to a 4.0ha (total) x 2.5 m deep series of 4 settling ponds.

In the six weeks of production to mid December, the gold production from the mine has met expectations. If this yield is maintained, the mine should realise 16,000 to 20,000 oz/year.

ROCKTEC INNOVATION AWARD & TRAVEL GRANT 2013



Jason Tapper presents the 2013 Rocktec Innovation Award to George Kelcher

Article by George Kelcher, FIQ

At the 2013 Annual Quarry Conference held in Dunedin I was fortunate enough to be selected to receive the Rocktec Innovation Award and Travel Grant to the value of \$3,500.

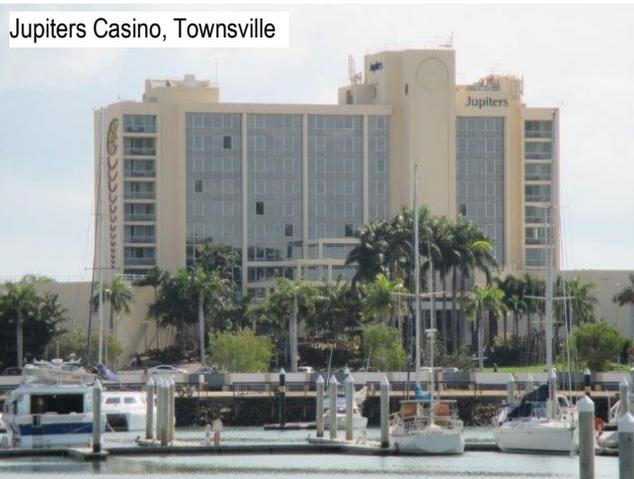
After some discussions with the Team at Rocktec, Jason Tapper and Les Ward, the decision was made that my partner Joanne and myself would register for the Institute of Quarrying Australia Conference that was being held in Townsville from the 18th until the 21st of September and to tie this in with a couple of quarry visits at

some selected quarries in Queensland.

We flew Christchurch to Townsville on Monday the 16th September and booked into the Conference Venue, the Jupiter's Casino, so as to give us some time to settle in and to have a look around Townsville prior to the Conference starting. Weather was fine and a number of degrees warmer than in NZ and stayed that way during the whole fortnight that we were in Australia.

Having attended a number of previous Australian Conferences prior to this trip it was great to catch up with friends as they arrived for the Conference. The camaraderie at the Australian Conference is very similar to our own New Zealand Conferences and this was added to this year with IQA picking up the services of our very own Steve Davis as the Conference MC for this year – a role he filled exceedingly well.

Wednesday night's function was the Hitachi Welcome Reception held at the Poolside, a laid back affair with entertainment on stage and refreshments being served.



Jupiters Casino, Townsville

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Up early for Americas Cup

There was quite a contingent from New Zealand including current IOQNZ President Gordon Laing, Past President Gavin & Diane Hartley, Les Ward & Jason Tapper from Rocktec, Trevor & Erin Tamblyn, Rex Davies, Mike McSaveney, Dale Cameron, Stacy Goldsworthy, Jason Hearn, Bill Marshall, Simon Rush, Jon McAlister, Bruce Warner and of course Steve Davis – apologies for anyone I have missed.

Thursday was filled up with some very good plenary sessions with a wide range of speakers and subject matter.



Kiwis at Townsville

The ladies had the Orica Partners Day that was enjoyed by all and in the evening the Komatsu Conference Dinner was held in a large marquee on the lawn adjacent to the rock wall that ringed the harbour area. Once again a very enjoyable evening.

Part of the New Zealand contingent made the early morning rise each day to view the America's Cup racing which looked as though it was going to be won by New Zealand but as the mornings went past this got to be more and more frustrating as it was starting at 6.00 am in Townsville and the results were certainly not going our way with the various rules that were in place.

Friday morning was taken up with more informative, well presented papers and the afternoon was a Quarry visit to the local Holcim Bohle Quarry. There had been considerable work undertaken by Dylan Viviers and his team prior to the many busloads of delegates arriving with a big marquee erected to provide some shade from the hot sun and plenty of cold drinks and food available.



Holcim Bohle Quarry Day

There were a number of mobile plant units on site that gave the onlookers a number of working demonstrations



Mobile Plant display

which were enjoyed by all. It was then back on the buses for the return trip to Jupiter's Casino for the 4.30pm Happy Hour.

Friday night was the Caterpillar Gala Awards Dinner held in Jupiter's Grand Ballroom. A big crowd enjoyed the dinner and the various awards given out to deserving recipients including an Australian version of the Rocktec Innovation Award and the following entertainment that carried on well into the night.

Saturday morning was another Quarry opportunity with Andrew Gotley from The Kleeman Team having organised a site visit to another local quarry run by GroMac to

have a look at a piece of new equipment that had very recently been supplied to that site It was a Tracked

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Kleeman Cone Crusher Unit with less than 100 hours on the clock. The unit weighed in at around 80 odd ton and uses an HP400 Cone unit as the crusher component. This complete with a static Jaw Crusher, a Powerscreen 2400 Screen and another feed bin and couple of conveyors was capable of putting out around 350 tonne per hour of various products.



Kleeman HP400 Cone Plant

It was then back to the Casino in time for the Keynote presentation from James O'Loghlin and the AIQEF lunch and auction. Once again this

raised a considerable sum for the education trust and was supported by many bidders.

Overall the Conference had many similarities with our New Zealand Conferences with many of the sponsors being similar and the same networking opportunities between the various attendees, both delegates and stand holders. Even more so this year with Steve Davis doing a very professional job as MC.

The next week saw Jo and myself touring down the east coast towards Brisbane. We spent a couple of days with an old mate that I had served my apprenticeship with when training as a mechanic many years ago. When in Townsville I had talked to Dugald Gray (Past President of IQA) and had confirmed a visit to the Karreman Quarry at Mt Cotton owned and run by



Mt Cotton Plant No One

Dick Karreman and his son Danny.

Dugald, Joanne and myself turned up at the Mt Cotton quarry on Friday 27th September and it turned into a very interesting morning. This would have to be one of the most impressive and interesting quarries that I have ever visited. Dick was the perfect host in explaining the background of the Quarry and then taking us around and showing us the various facets of the business. Unfortunately Danny was away at another Quarry – I was told training up one of the local Mining Inspectors on how



Mt Cotton Plant No Two

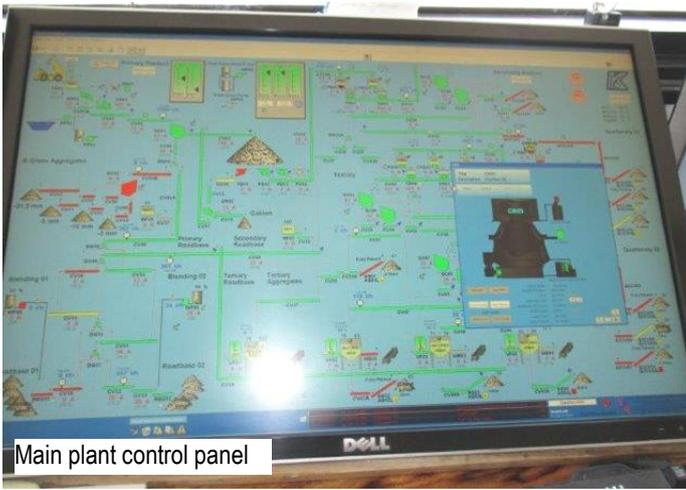
things should be done. Danny was also the recipient of the Australian version of the Rocktec Innovation Award in 2010 and this Award has pride of place on his office wall.

Karreman's West Mt Cotton Quarry is one of the top five quarries in Australia based on tonnes produced. In 2008, in response to demand for infrastructure in South East Queensland it was Australia's busiest quarry producing around four million tonnes of road base materials, aggregates and other crushed products.



Mt Cotton Plant No Three

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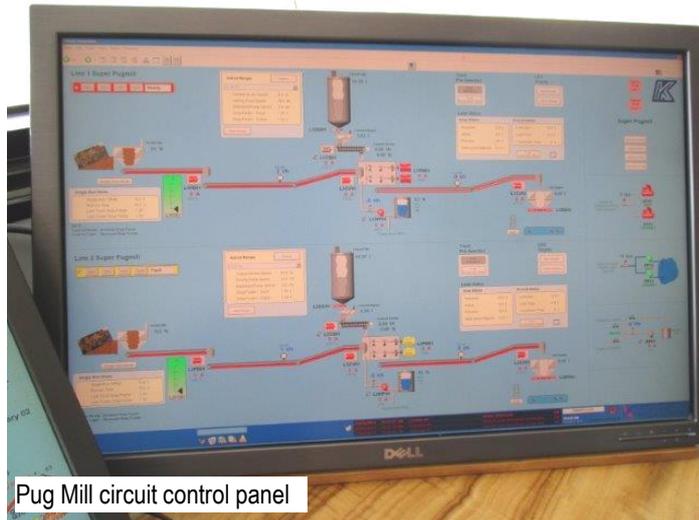
Main plant control panel

On the Gateway Bridge duplication project alone Karremans supplied more than two million tonnes of road base and aggregates. Demand has dropped off somewhat with the downturn in the Australian economy with current output from this quarry being around 1.5 million tonnes per year.

During 2010 – 2011 the Karremans commissioned a state of the art crushing and screening plant and cement treated road base plant which is amongst the most sophisticated of their types in Australia. The plant has been very well designed and laid out allowing for many variations in the processing circuit resulting in being able to produce just about any product that may be required.

The crushing plant consists of a Jaw Crusher and five Cone Crushers set up as secondary and tertiary units. These cones produce all of the various products required without the need for a vertical shaft impactor. The Plant design incorporates a number of screens and seventy separate conveyors.

My understanding is that the plant cost around \$50 million with over \$6 million of this being invested in electronic smarts to make the plant run. It is the most impressive control room that I have had the pleasure of visiting and the screen outlay is duplicated in Danny's office so that he can also keep an eye on the production.



Pug Mill circuit control panel

Plant maintenance and liner changes is another area where innovation is right up there. In the maintenance workshop there is a line-up of spare upper and lower Cone components where the liners and repairs are carried out whilst the plant is still running and when it comes time for a change the complete unit is lifted out and the replacement lifted in and crushing starts again within a few hours.



Spare cone crusher components

complete pug mill circuits side by side allowing for the mixing of cement, lime or any other additive that may be required. This is a Plant that most Kiwis can only dream about.

Karremans also have the largest privately owned fleet of Mack Trucks in Australia, the truck and trailer units being all built to the same specification and the complete units are replaced on about a three year cycle meaning that the trucks never actually get out of the warranty period whilst they are owned by Karremans – truly a remarkable situation to be in. There were seventy trucks in the fleet at the time of our visit.



Two new Macks

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The weighbridge system is fully automated and has all the latest technology in enabling quick turnaround, another item that I noticed on site was the Rocktec manufactured wheel wash which Dick told me works extremely well.

Listening to Dugald Gray and Dick Karremen talking about the relevant authorities and the constraints that they have to work under in Queensland gave me the real impression that this family has a major input into Local and Central Government at all levels and is a forceful advocate for the betterment of the Quarry Industry as a whole.



When we finally got to say goodbye to both Dick Karremen and Dugald Gray I was left with the impression of how great it is to talk to people who are absolutely passionate about our Industry; who have the where-with-all to build and own the most up to date and sophisticated equipment, who stand up and are vocal about the necessity of our Industry and are so down to earth when visitors come to visit their site. Thank you very much to Dick, Danny & Dugald and also to Rocktec and The Southern Cross Group for the Award which made this all possible.

It's business as usual for Barmac VSI in NZ!

Article submitted by Dwayne Barlow

As you may be aware, Metso is closing its New Zealand operation. The closure takes effect from Friday December 20, 2013. How will this affect you? The short answer is, it won't. MIMICO's outstanding team will ensure you experience no difference in the standard of service you've come to expect.

Please contact Rex Davies on 027 493 3550 if you have any questions.

A number of steps have been taken to ensure the supply of Barmac VSI product in NZ is not compromised:

Castings: Masport Foundries in NZ have signed a contract to continue as the primary casting supplier of wears. Their exceptional quality is critical to the continuation of supply.

Product Quality: Metso's Matamata team has been working diligently for the past three years on a quality programme that captures the tacit knowledge of the Matamata-based Barmac VSI staff. The product of this programme is a robust framework that not only mirrors the Matamata quality, but also provides a foundation for a more consistent quality level going forward.



Production Quality: The majority of Barmac VSI production currently done in Matamata will be moved to the Metso Park facility in India. Metso Park is a state of the art facility with specialised support services, including quality. Numerous trips have been made both to and from India and New Zealand to embed the quality system and complete production training.

Logistics: Metso's services and product team have reviewed the entire Barmac VSI product offering to ensure the correct stock holding and logistics are set up to meet your needs.

Rotor & Shaftline Refurbishment: MIMICO, Metso's New Zealand Distributor, has been granted the rotor and shaftline refurbishment business to ensure the standard of this service is not compromised. A training programme is currently being conducted to implement this service.

The entire team at MIMICO is dedicated to ensuring the upstream changes within Metso's supply chain will not negatively impact you. The intention is that, in the long-term, these changes in supply will ultimately improve our mutual efficiencies. If you have any questions about these changes please don't hesitate to contact one of the MIMICO team.



Who to contact:

Sales North Island:	Peter Hopkins, 0272-932 403	Sales South Island:	Lynn Everden, 0274-876 281
Service Crushing & Screening:	Ben Hopkins, 0274 401 405	Matamata Workshop:	Duncan Hart, 07 888 6294
Auckland Workshop:	021 566 874	Parts Matamata:	Alison Erasmus, Todd Chevis, 07 888 6294
Parts Christchurch:	Trevor Hope 03 343 6901	Product Support:	Peter Erasmus (Raz) 07 888 6294

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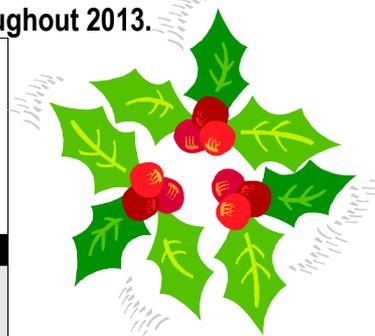
ADVANCED ENGINEERING GROUP would like to take this opportunity to thank you all for entrusting your business to us throughout 2013.



What's New

- Christmas Closing Dates
- IQA Conference - Townsville
- Christchurch Rebuild
- AEG Melbourne Branch
- Find us on Facebook

AEG Christmas Closing Dates 2013

www.advanced.eng.co.nz/

AEG NZ - 2pm Friday 20/12/2013, reopen on Monday 13/1/2014
 AEG AUSTRALIA - 2pm Friday 20/12/13, reopen on Monday 6/1/2014

We hope you and your family have an excellent break over Christmas and New Year period and we look forward to assisting you further in 2014.

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IQA CONFERENCE - Townsville Sept

Allan and Steve recently attended the IQA 56th Annual Conference in Townsville. The 4 day event was a great success with record numbers of delegates attending. The opportunity to network amongst the quarry representatives is always a pleasure. We are already planning our next stand and product release for the CMIC14 conference in Brisbane, 2014



From left to right [Ray Smith, Geoff Price, Steve Daly, Allan Schoenfish]

Christchurch Rebuild - How will our city look?

The Christchurch rebuild is rapidly gaining momentum & AEG Christchurch is in a good position to help meet local customers' needs as the demand for concrete & aggregates is increasing to unprecedented levels, as well as continuing to serve the rest of NZ with its usual high standard of service & products.

It's not all just happening in Christchurch either, for example Wellington quarries are gearing up for the massive "Transmission Gully" project.

Also with the MBIE on the warpath it's imperative that businesses keep a very close eye on the Health & Safety aspect & here at AEG we can offer a great range of mesh to guard off those problem areas.

Take care on the roads & remember to slow down through the roadwork's - these guys do a fantastic job



AEG Melbourne Branch

The Melbourne branch of AEG is well on its way to establishing itself as a favourite supplier to the quarry industry. With an increase in the range of stocks being kept for customers, and the company working to its strengths, with a quick turn around and an Australian made quality product, customers are turning to AEG.

You can contact Arthur Summit on ☎ 03 9363 1577 or email him at arthur@advanced-eng.com.au



Ian and Ali Hooking

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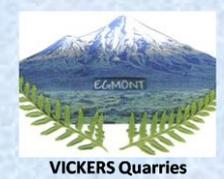










For information on the IOQ Executive Committee, Branch Chairmen and Secretaries, upcoming branch meetings, conference updates, awards nomination forms, membership forms, etc visit the website - www.ioqnz.co.nz. All forms are in pdf format and can be scanned and emailed to save you time.

❧ WELCOME TO NEW MEMBERS ❧

Name	Category of Membership	Branch
Mathew E Arthur	Transfer/Member	Northland
Nick Foran	Associate	Overseas
Andrew Falloon	Associate	Canterbury

Please ensure invoices are paid promptly and details are updated when you change your address or employer. Once your invoice for membership is paid you will be presented with your Institute of Quarrying certificate and a History book. Any current paid-up members who have not received a History Book please email gavin.hartley@bhq.co.nz or chrisr@inet.net.nz.



It's time again to sign off on another year. As this will be the last newsletter before Christmas the Executive of the IOQ NZ would like to wish all of you a very merry festive season! We hope you all have a wonderful day with those you love.

As this also happens to be the last newsletter of 2013 we would just quickly like to say thank you to those who have contributed articles which benefit and support overall the quarrying community.

This community really wouldn't be the amazing place it is without you. Don't forget we appreciate feedback email and if you have an item you would like included please drop us an email!



A special thank you to the Friends of IOQ NZ - as shown on the banner at the side of our newsletters. Their continued support of the Institute of Quarrying is very much appreciated.

