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Issue 24, December 2015

From the Chair...

Update from the Chair – 18/12/15

Welcome to the December issue of CETANewZ. Summer is here, although you wouldn't know it thinking about some of the weather we have had over the last couple weeks.

Christmas is nearly here so hopefully everyone can take a well-deserved break from work to relax, unwind and catch up with family and friends.

Over the last twelve months CETANZ members working on your behalf have covered a lot of ground. Some of the initiatives and events that have taken place include:

- CETANZ AGM – full reports sent out
- Proficiency scheme – TSR, LA, CPL, PL, PI completed
- Organisation of the 2016 conference.
- Qualification review
- Best practise guidelines and technical reports
- Civil laboratory salary survey
- Formation of the new CPT working group
- NZS 4407:2015 published and comparison document created
- Liaising with NZTA regarding requirement for IANZ accreditation
- Representation of CETANZ on NZTA specification reviews.



Looking forward, CETANZ is thinking about training videos, NZS 4402, NZS 3111 review, more proficiencies, more technical guides, promotion of our qualification and more health and safety initiatives.

All of this wouldn't be possible without the dedication of the management committee and those on the working groups.

I would like to personally thank Opus, Geotechnics, Road Science, GBC Winstone Aggregates, Fulton Hogan, Coffey, Ground Investigation and Stevenson for allowing their staff to participate and their continued support of CETANZ, we could not do it without you.

If you would like to know more, or you want to get involved, feel free to get in touch anytime. Contact us here at info@cetanz.org.nz if you would like to learn more

I hope you enjoy this issue.

Merry Christmas and Happy New Year!

Jayden Ellis
Chair - CETANZ

CETANZ CONFERENCE 2016

The CETANZ careers and events team have been working away behind the scenes, making all the arrangements necessary to put together a great conference in Tauranga next year.

We are happy to announce that the 2016 CETANZ conference is now open for registration!

Please click [here to go](#) to the conference website where you can find out more about the conference and complete your registration online.

Thank you to all who have expressed interest in presenting at next year's conference. We are still looking for more presenters, so please [contact me](#) if you are interested. Michael McGlynn has already started working on his!

Have a safe and happy holidays.

Regards,

John King

Editor



CETANZ CONFERENCE 2016

Trinity Wharf, Tauranga | 10 - 12 August 2016

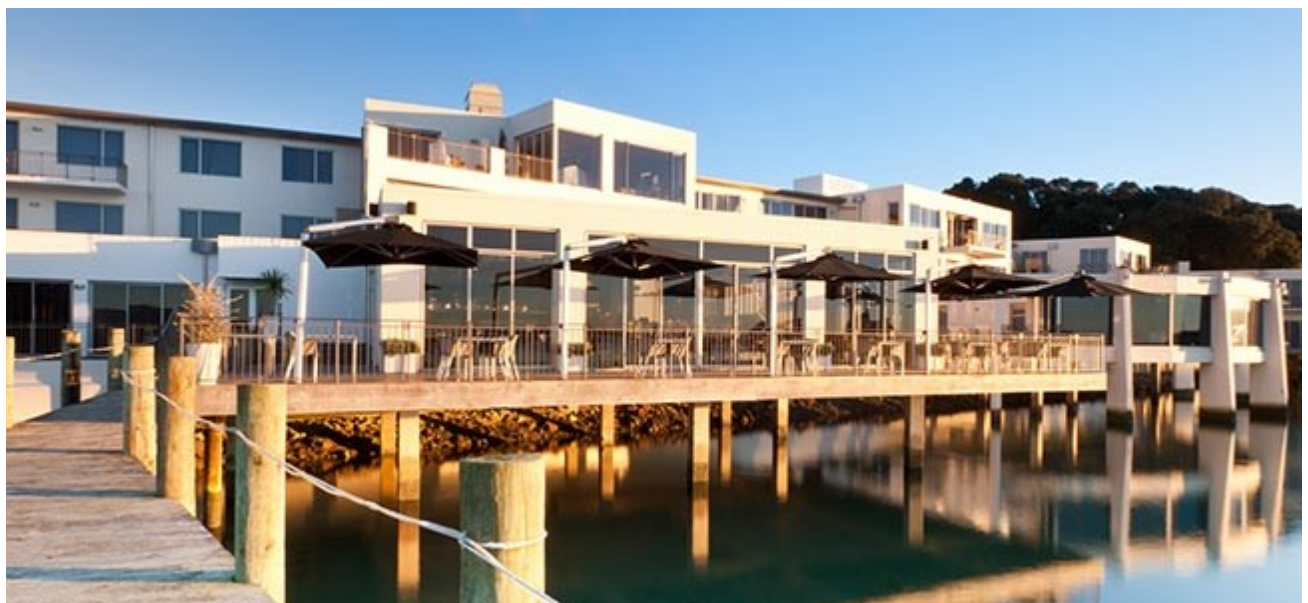
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Matt Phillips, Lab Technician

For this issue I interviewed Matt Phillips. Matt is 23 years old, and works as a technician while studying towards his degree in electrical engineering at the Auckland University of Technology.

How did you get in to your role in the Soils Lab with Sim here at Geotechnics?

It was kind of an accident. I got a temporary job through student job search working with Kent [Dalziel] in Land Development performing thermal resistivity tests. That was only expected to last a month or so, but when Sim's assistant left I stayed on as a member of his team. So for the last year I've been doing about 30 hours per week with Sim.

What tests do you do for Sim?

Most of the soil related tests. I perform them generally with Sim's supervision, there's a few that I can do on my own. Anything from water content, standard compaction, heavy compaction, CBRs, Liquid Limits, Plastic Limits, Plasticity Index, linear shrinkage.. Most of the tests there are, I've done them.

Do you enjoy it?

Yep, it's the best job I've ever had by quite a significant margin. Beats working in bars, no late nights, weekends off and I'm paid well for what I do. It works really well with Uni too, I'm welcome here when I'm not studying so there's plenty of time to get my Uni work done.

What do you like about it the most?

I guess I like the technical aspect of it. I feel as though I'm always learning something, even if it's a test I've done a lot there's always something new to learn. Applying scientific knowledge to help improve the world a little bit.

Why do they call Sim "The Doctor"?

I actually don't know, I assume it's because he's been in the industry for 21 years and he knows basically everything there is to know about it. He can pull off a lump of soil and be able to tell you the approximate mass of it down to a gram. Looking at standard compactions and stuff, he'll tell you what the density will be and what mass you'll expect after the test, he's usually very accurate.

Is there anything that you don't like about the work?

Not really.. anything that I don't like is sort of self-imposed. If I make an error for a big job such as a typo or something I have to go back through and change everything but that's just admin stuff – in terms of the actual work there's nothing I can really think of that stands out.

So you're doing a degree in electrical engineering, does that relate to the work you do here at all?

Umm It doesn't really.. It relates in a tangential way. A lot of the engineering studies that we've done up until the point I'm at are very broad so they apply to all of the disciplines. Civil, Mechanical, Electrical, Software so from that basic understanding a lot of this really ties in and helps solidify the theory of why a lot of things are used.

For electrical engineering specifically, a lot of the equipment that we use in the lab I can look at and know what the components are doing and why it has been manufactured that way and also how you could potentially improve on it later down the track.

What are your plans for once you finish your degree?

I'd like to go overseas for a little while and make a bit of money, I'd really like to work on some space technology or something in that area which would be really cool.

Technology around the world is changing at a rapid rate, how do you see this affecting our industry and the work that you've been doing?

I don't think automation is really going to hit the staffing in this industry too hard, because there is a lot of variability with the tests and the materials and also what you're constructing. So at the end of the day you're always going to need someone like Sim, and all the technicians to make those judgement calls. You can perform the tests to the book but you might not get a good answer if you're not a good technician.

What would you tell someone who's thinking about joining the Civil Engineering Testing Industry?

I'd tell them to do it. It's a wicked job, you'll learn a lot and grow a lot as a person.

If you were an animal, what would you be? What's your spirit animal Matt?

Haha I don't know, probably a stag or something. I'm quiet and do my own thing, but I like to be noticed so I've got the big antlers too.



Caption Competition!

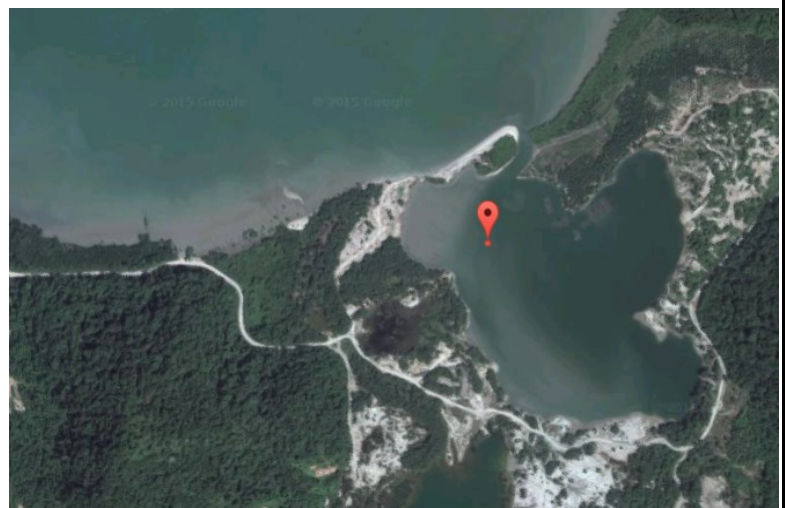


What is Jayden thinking?

Entries to jking@geotechnics.co.nz for your chance to win a gift basket of delicious treats and beverages.

What happens when you develop an open cast tin mine adjacent to the ocean?

The lagoon shown in the image, is where the mine used to be.
[Click here](#) to see video footage of the mine collapse.



CETANZ Environmental and Safety Alert

Safety Alert #002

Employee received chemical to the eye.

Actual consequence: Serious Harm Injury – superficial chemical burn to eye, no permanent damage

Potential consequence: Potential blindness in eye

What Happened

- Worker was mixing zinc chloride solution
- Worker was trying to break up a lump of zinc chloride
- Zinc chloride splashed directly into the workers right eye
- The worker suffered a superficial chemical burn to their right eye from a splash of zinc solution.
- The worker was wearing personal protective equipment (PPE) including safety shoes, laboratory coat, face mask and gloves. For this test gloves and safety glasses are listed in the test method. The worker was not wearing eye protection while preparing the solution.



Root Causes

- Training within the laboratory is focused more on methodology and the result of the test method. Consideration into the health and safety procedures and required PPE noted in 9.3.1 of the test was overlooked.
- Training records and the Internal Accreditation New Zealand (IANZ) skills register did not include reviewing health and safety requirements for the test.
- General health and safety records have not been kept up to date including material safety data sheets (MSDS), PPE register and hazard register.
- Health and safety communication and training records do not include acknowledgement form from the trainee that training is understood.

Immediate Actions Taken

- Employee received eyewash on site, then eye irrigation at the hospital. This included follow up appointments at an optometrist.
- Incident investigated internally by trained incident cause analysis method (ICAM) investigator.
- WorkSafe notified of incident
- WorkSafe did not investigate

Immediate risks / learnings / corrective actions

- The laboratory held a meeting on site for all staff on chemical safety
- A full internal investigation took place
- An external health and safety consultant was assigned with auditing all laboratories nationwide in order to identify any health and safety gaps.
- The consultant is also developing a health and safety guideline checklist for all laboratory managers in conjunction with the company's NZ H&S Officer.

Company Investigation outcome / learnings / recommendations

- Safety alert released to all NZ staff
- Updating training records and skill competency register to include health and safety
- Review all test methods requiring PPE are following best practice guidelines
- Procedure to be written on the correct way to handle chemicals
- Health and safety audit review of all laboratories nationwide
- Develop health and safety guideline checklist for laboratory managers nationwide
- Review IANZ skill guideline to include health and safety criteria
- Training and skill review for staff handling/storing and mixing chemicals
- Reminder systems set up to ensure review of MSDS sheets, hazard register and chemical folder
- Refresher laboratory induction for all laboratory staff nationwide
- Safe behaviour observations key performance indicators set to improve overall safety culture in laboratory

CETANewZ Word Find

R R O E Z N A T E C A N P J B
 E S E E L M E L D S A O B R E
 T H S T J P I V P W I I E M N
 E E H E E O M H E N Z T Z O K
 M A R R S M A A T I E C P I E
 O R I C O L O L S M S A M S L
 L V N N T T O N O E F P U T M
 I A K O S A Z Z I N R M L U A
 F N S C D X E Y Q L X O S R N
 O E W T E I I E H Z C C C E B
 R R E L P M A S W O D N I W E
 P S L L I Q U I D L I M I T A
 T A L Y T I S N E D Y R D D M
 W I S E T T L E M E N T B Z O
 P J W F U X E D N I Y A L C E

ASPHALT
 BENKELMANBEAM
 CETANZ
 CLAYINDEX
 COMPACTION
 CONCRETE
 CORESAMPLE
 DRYDENSITY
 INCLINOMETER
 LIQUIDLIMIT
 MOISTURE
 PIEZOMETER
 POINTLOADTEST
 PROFILOMETER
 SETTLEMENT
 SHEARVANE
 SHRINKSWELL
 SIEVE
 SLUMP
 SOIL
 WINDOWSAMPLER



“Please be careful when putting revision clouds on your drawings. Some of the contractors do not understand”

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- Tension machines
- Balances
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- Proving rings



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Metrology and Lab Testing Equipment

Dial Gauges, Calipers, Liquid Limit Devices, Length Bars, Micrometers, Rubber Hardness Testing (ShoreA, IRHD), Measuring Tapes, Steel Rules, Weight Gauges, Engineers Squares, Spirit Levels, Dumpy Levels, Bevel Protractors, Inclinometers (Bevel), Graticules, Paint Gauges, Gauge Blocks, Thread Gauges, Surface Texture, Surface Plate and more...

MCC - The Measurement and Calibration Centre

For more information call us on: Ph: (09) 362-1720 or visit our website www.themcc.co.nz
19 Morgan Street, Newmarket, Auckland, New Zealand

What else have we been up to?

John King has been on a big trip down South to [Coal Bay](#), on the wild west coast of Fiordland. Five days were spent hunting, fishing and diving in the bay. Living off fresh pua, mussels and sea run brown trout. Take a look at some photos! A great place to be.. Except for those sandflies..

