

ENGEO VIEW

Expect Excellence.

KAIKOURA M7.8 EARTHQUAKE DEMANDS IMMEDIATE RESPONSE

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May 2017

EFFORTS CONTINUE IN RESPONSE TO THE KAIKOURA M7.8 EARTHQUAKE

by Olivia Ellis-Garland
Christchurch, New Zealand



The 2016 Kaikoura earthquake was a M7.8 earthquake in the central-eastern portion of the South Island of New Zealand that occurred just after midnight on 14 November 2016 (NZ Time). The Kaikoura Ranges that surround the area extend to the eastern coast of the South Island, providing the region with mountainous terrain and a rugged coastline.

As a result of the earthquake, many major transport routes were closed due to landslides, damaged bridges, road subsidence and the risk of falling debris, effectively cutting off all land routes into Kaikoura. These routes included State Highway 1 (between Picton and Waipara), and the Main North Line railway (Kiwirail).

Emergency response and recovery works continue today. Efforts include:

- Sluicing and scaling slips above Kiwirail and State Highway 1 sites to remove loose blocks and debris;
- Engineering and geological hazard mapping of the land deformation;
- Risk assessment of the slopes to determine and assist with the design of appropriate rockfall mitigation measures; and

Work on the Kaikoura Project has been going full throttle since the day of the earthquake and doesn't appear to be showing any signs of slowing down.

- Geotechnical assessment of residential, commercial and industrial sites within the region.

The work involves multiple disciplines and is not without its challenges and risks. The State Highway south of Kaikoura was opened the week prior to Christmas, therefore works undertaken in these areas require coordination with public traffic. There is an

impressive number of monsoon buckets being dropped onto the slopes by helicopters, and several abseilers are suspended on the slopes releasing blocks and debris.



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KAIKOURA M7.8 EARTHQUAKE (Continued from pg. 1)

Work on the Kaikoura Project has been going urgently since the day of the earthquake and is expected to continue for a significant length of time.

Despite the circumstances, it has been an exciting experience and an extremely beneficial learning opportunity.

The small and humble community of Kaikoura has been so inviting to the hundreds of professional and operational personnel who have descended upon it. Working in such a picturesque location during a New Zealand summer also has its benefits.



PROVIDING SHELTER, DIGNITY AND WARMTH FOR ALL

by Guy Cassidy
Wellington, New Zealand

ShelterBox New Zealand is a not-for-profit organization raising crucial funds to bring life-changing shelter and essential aid and relief to families affected by natural disasters and humanitarian emergencies around the world. It is one of 21 affiliates of ShelterBox International. In New Zealand, the organization is governed by a charitable Board of Directors and Trustees, and entirely run on a voluntary basis with strong links to the Rotary community throughout New Zealand.

Over the past 16 years, ShelterBox has grown from a small Rotary-funded project based in Cornwall, United Kingdom, to a massive global operation. Recognized as one of the world's most responsive and trusted shelter and essential relief organizations, ShelterBox serves tens of thousands of people each year. From the 2004 Indian Ocean Tsunami to the 2011 Japan earthquake, and most recently in Fiji and the Philippines, ShelterBox has deployed to some of the largest disasters the modern world has ever known.



Determined to make a positive difference for ShelterBox, I joined the Board of Directors to develop and grow a corporate giving program that makes it simple to get involved and support the great causes ShelterBox supports.



➡ Visit www.shelterbox.org.nz and www.shelterboxusa.org

DRONES ENHANCE ENGINEERING SERVICES

by Gilead Wurman, PhD
San Ramon, California

Want to monitor work progress on your site from the comfort of your desk? Want to estimate earthwork quantities without sending out a survey crew? Want to get detailed, digital topography of a new parcel? These applications and more are possible with drones.

Drone technology is evolving rapidly, and ENGEО is leading the way. We have two



FAA-licensed drone pilots and one drone, ready to perform aerial photography, videography and survey missions. We can produce 4K video, still photos, and high-precision digital terrain models of sites up to 50 acres. With repeated surveys we can produce accurate cut-and-fill volumes.

For more information, email drones@engeo.com.

ENGEО ANNOUNCES NEW PRINCIPALS AND ASSOCIATES

ENGEО announces the promotion of seven leaders to new levels of service. Says ENGEО president Uri Eliahu, “These individuals consistently go above and beyond in service to clients and staff. Each one takes to heart what it means to mentor, serve and teach in ways that further our vision, mission and values.”

PRINCIPALS



JEFF ADAMS, PhD, PE
SAN RAMON, CALIFORNIA



**JANET KAN, GE, CEG,
LEED AP**
SAN RAMON, CALIFORNIA

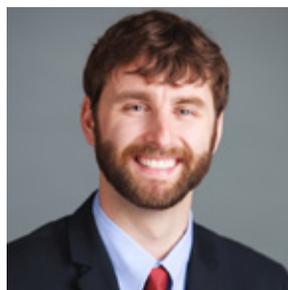


NEIL CHARTERS, CPEng
CHRISTCHURCH,
NEW ZEALAND

ASSOCIATES



ANDREW FIRMIN, GE, QSD
SAN RAMON, CALIFORNIA



SCOTT JOHNS, PE, QSD
SAN JOSE, CALIFORNIA



KAREN JONES, CEnvP
WELLINGTON,
NEW ZEALAND



**ERIKA MCDONALD, PE,
MIPENZ**
AUCKLAND, NEW ZEALAND

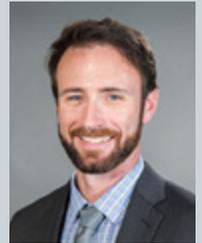
IS GROUND HEAT EXCHANGE RIGHT FOR YOU?



Ground Heat Exchange retrofit installation project in San Ramon, California

A Ground Heat Exchange system is a carbon-free, money-saving energy alternative to conventional heating and cooling. These systems can save 40%-70% over the cost of gas and electricity. For more information and to view the video, please visit <http://www.engeo.com/news>.

California Geothermal Heat Pump Association welcomes ENGEO's Todd Bradford, PE, to join the board of directors.



The Association strives to turn California's regulations and policies into green action by government, consumers, and businesses. These include the installation or retrofit of GHPs (geothermal heat pumps) to eliminate greenhouse gas generation by buildings, and to foster their achievement of LEED-certified ratings and a march toward carbonless ZeroNetEnergy, the most sustainable building option of all. Their advocacy is matched with increasing education and training to develop installation professionals and maintain quality standards for evaluation and measurement that prove performance of GHP technology.

HOME SAMPLING KITS ARE NOW AVAILABLE IN NEW ZEALAND



by Tom Davies
Christchurch, New Zealand

Safe Sampling Solutions provides homeowners the ability to safely sample for hazardous materials within their homes. Each kit includes detailed sampling instructions, containers, and personal protective gear to take samples and send to an accredited laboratory for asbestos and methamphetamine testing.

The sampling kits are the first of their kind in New Zealand, and offer safe, affordable analytical results. Kits are now available at Mitre10, one of New Zealand's leading home-improvement chain stores.



INSTRUMENTATION UPDATE

Thanks to some training received at the Geokon manufacturing facility in New Hampshire last year, ENGEО is now acting as the “manufacturer’s representative” during Geokon instrumentation installation.

Keep us in mind when you are thinking about instrumentation or talking to contractors.

We just completed installation oversight for 12 strain gauges welded to a 6-foot diameter cast in steel shell (CISS) pile in the Santa Barbara area.

Learn more about Geokon at www.geokon.com



ARE YOU AN IDEAL TEAM PLAYER?

When we are evaluating a new candidate to hire, we always ask each other questions about our perceptions about their ENGEОness and their ability to be a contributing member of our high-performing team. What would it be like to share an office with them? How would they perform in front of a client? Do they have an ego? Does adding them help us raise the bar?

The Ideal Team Player, by Patrick Lencioni, makes it simple by breaking it down into just three traits - **Humble, Hungry, and Smart**.

- **Humility** is described as the most important and indispensable attribute of a team player.
- **Hungry** people rarely need to be pushed to work harder because they are self-motivated and enjoy being active.
- **Smart** people have a high level of common sense (or intellectual IQ) in dealing with other people.

In reviewing this book, these are great, simple words that describe the common traits that make the individuals on our team special.

What's on your reading list?

