

# Newsletter September 2012

Issue No. 29

## Editor's Note

Thank you once again to all the contributors to this edition of the IGI Newsletter.

All contributions to this newsletter are greatly appreciated and I am sure there is a wealth of information, news and burgeoning articles out there amongst the membership. So please feel free to send them onto me!



Marie Fleming (Editor)

All Articles to **Marie** at [marie.fleming@arup.com](mailto:marie.fleming@arup.com) .

## UPDATE TO IGI MEMBERS ON KEY ACTIVITIES

Following the AGM on Wednesday 23rd May, 2012, the newly elected IGI Board members are:

- **President:** Deirdre Lewis
- **Vice-President:** Gerry Stanley
- **Treasurer:** Barry Balding
- **Secretary:** Jonathan Derham

### Non-Executive Board members:

- Andy Bowden
- Marie Fleming
- Paul Gordon
- Jim Hodgson
- Bruce Misstear
- Ric Pasquali



**Photo L-R:** E. Stringer, J. Derham, J. Hodgson, M. Fleming, D. Lewis, B. Balding, P. Gordon, R. Pasquali, S. Pyne, G. Stanley.

## Institute of Geologists of Ireland – Professional Indemnity Insurance Scheme

The IGI has been working in collaboration with Thompson Insurances brokers in the development of an exclusive Professional Indemnity (PI) insurance scheme for the members of the IGI and affiliated organisations. This article presents an overview of PI

insurance, introduces the concepts and the benefits of the proposed scheme to the members of the IGI

What is Professional Indemnity (PI) insurance? How do claims arise? What are the benefits of an institute or association negotiating a scheme facility with one insurer?

Typically, PI does not concern itself with bodily injury or damage to property. This cover protects the professional person. It protects against legal liability to pay damages to persons who have suffered financial loss arising from professional negligence.

PI has come to the fore in the past decade principally due to the willingness of more people to seek compensation when they feel the professional advice/service they have received has not met their expectations. The requirement of professional bodies that members have a minimum level of PI cover in place has also increased the tendency to take out this form of cover.

The list of claims examples for geologists is not exhaustive but I would like to use an architect as an example here. In **Sutcliffe v. Thackrah (1974)** Thackrah were appointed architects and issued interim completion certs despite the work not having been done or incorrectly completed. A new builder had to be appointed at higher cost to complete the job. Sutcliffe successfully sued Thackrah for negligence and breach of duty. Consider the potential for damages if a PGeo signed off on work without having done a thorough job or despite best intentions

making a mistake. Consider further the legal costs involved in successfully defending a claim where no negligence took place.

Professional people purport to have expert knowledge and qualifications and so owe a duty to their clients to exercise the degree of skill expected of such a person. If they fail to exercise that care and skill and a client suffers a financial loss as a result, the client may well sue them for negligence.

A PI scheme for the Institute of Geologists of Ireland has a number of advantages. A block of premium is placed with one insurer which means the institute enjoys greater bargaining power when negotiating premiums, cover enhancements and claims settlements. A single scheme could never claim to be the most competitive offering available in all cases but on balance schemes remain highly competitive and tend to be able to negotiate market leading coverage. Examples of cover enhancements not readily available on the open market for geologists include:

- non aggregated limit of indemnity (€1m being the standard limit),
- negligence and civil liability wording,
- loss of documents extension,
- pollution extension,
- dishonesty of employees extension,
- libel and slander,
- compensation for court attendance and
- defence of intellectual property rights.

Further, with Thompsons' experience of managing professional indemnity schemes for engineers and geologists, a number of pitfalls can be avoided particularly around continuing coverage due to the nature of the "claims made" wording of PI insurance. It is essential a retroactive cover date is applied on all new policies right back to the date when you first began insuring for PI. With cover on a "claims made" basis, provided the claim is made during the period of insurance, it does not matter when the act of negligence giving rise to the claim took place. However, retroactive cover can only be applied as far back as the retroactive cover date on your policy.

In order for PI insurers to get a comprehensive understanding of the nature of each risk, they usually require completion of a proposal form which Thompson Insurance can help IGI members with. The forms include details of partners/ directors, total number of other staff, details of major contracts and previous claims. This process will also apply to the IGI PI scheme and members will be assessed on a case by case basis.

Insurers usually calculate the premium for PI by applying a rate to the gross fees or gross revenue of a company after considering all other risk information. Thompson Insurance will then negotiate the best deal for members of the IGI.

Details of the proposed PI scheme for the members of the IGI and affiliated organisations are currently being finalised with the insurance companies. We hope to provide further details in the coming months.

In the meantime Thompson Insurance would be happy to provide assistance with any insurance related queries any member of the IGI or corporate entity may have. For further information please contact:

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**EurGeol Ric Pascali PGeo**

## **Pyrite Panel Report**

The IGI issued the following statement in response to the report released by Minister Hogan on the 18th July 2012:

### **MINISTERIAL PYRITE PANEL'S REPORT ON PYRITE IN AGGREGATES PRESS RELEASE**

The Institute of Geologists of Ireland (IGI) welcomes the publication this week of the Report of the Pyrite Panel on the problems related to pyrite in aggregates used in the foundations of dwellings. The Institute notes the comprehensive nature of the Report and the included 24 recommendations.

In particular, the IGI notes the recognition by the Panel that:

- Geologists are not commonly involved in the construction or quarrying sectors. (Section 2.4).

and

- there was only passing reference to the mineral pyrite as part of geology modules in third level construction and engineering courses. (Section 3.1.2).

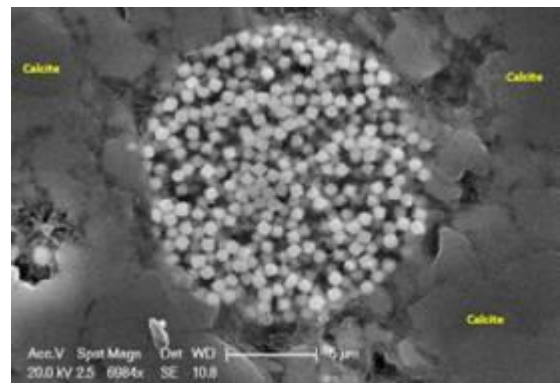
and

- The subject of 'pyrite' and the consequences of 'pyritic heave' were not adequately covered in third level construction, design and engineering courses prior to 2007. For the most part there was merely a passing reference to it in geology modules. (Section 8.15).

Geologists, on the other hand, receive extensive training in mineralogy and petrology which includes the identification of minerals. Thus, the IGI wishes to stress the important role of professional geological assessment of aggregates intended for use in construction. All aggregate sites require detailed geological assessment and independent testing to ensure that the resource to be developed or extended is fit for purpose for the proposed end-use. Such assessment would also inform essential regional minerals planning needs.

Since the 'pyrite problem' first emerged in 2007, the National Standards Authority of Ireland issued new guidance on appropriate assessment of specified fills for use in construction and civil engineering projects

(SR 21:2004+A1:2007), as noted in the Report. Modern best practice requires adherence to both NSAI standards and the internationally recognised codes for the reporting and description of aggregate resources. The Pan-European Reserves and Resources Reporting Committee Code (PERC) is one such Code and the one to which the IGI is affiliated and recommends.



**Photo:** Framboidal Pyrite

The IGI advises that prudent suppliers, advisers and users should ensure that advance professional geological advice is sought to ensure that produced aggregates comply with the all relevant standards and specifications for proposed end-uses. A register of professional geologists is available at [www.igi.ie](http://www.igi.ie)

On behalf of the Institute of Geologists of Ireland  
Dr Deirdre Lewis  
President

*For further information, please contact:*

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[dlewis@slrconsulting.com](mailto:dlewis@slrconsulting.com)

## Irish Brownfield Network



A new networking forum for brownfield practitioners operating in Ireland has recently been launched. The Ireland Brownfield Network aims to encourage constructive dialogue and interaction amongst all those involved in the redevelopment of brownfield land across the island of Ireland. It is intended that the Network will become an effective way of sharing learning experiences, best practice and strategies amongst its members so that the redevelopment of brownfield sites is achieved in an appropriate and sustainable manner.

Commenting on the launch, Andrew Ryan, one of Northern Ireland's leading environmental lawyers and founding members of the Network, said "This is a most welcome initiative. Managing and redeveloping brownfield sites involves bringing together a variety of professionals from a range of expert backgrounds, but outside of these individual projects, opportunities to interact and share experience can be limited. There are some excellent examples of successful brownfield redevelopment schemes across the island of Ireland but there is plenty more that can be achieved. Sharing collective experiences, identifying the challenges and finding solutions will assist greatly in the appropriate and sustainable management of these sites."



The Network is free to join and open to all with an interest in brownfield redevelopment in Ireland. The Network has a dedicated website ([www.irelandbrownfieldnetwork.com](http://www.irelandbrownfieldnetwork.com)) and hopes to hold an inaugural conference and networking event in the Autumn of 2012.

## Irish Geoscience and the Media

### Introduction to the News Media for Ireland's Geoscientists

A very successful course entitled 'Introduction to the News Media for Ireland's Geoscientists' was held in the Royal Irish Academy on the 17<sup>th</sup> May 2012. The event comprised two sets of panellists, one panel made up of well-known journalists and broadcasters and the other panel of some of Ireland's leading geologists.



**Photo ( L-R):** Prof. P. Shannon, Prof. J. McCluskey, Dr. D.Lewis, I. Jackson, G. Earls, D.Ball (just out of shot on the right).

The event was chaired by Fiona Fox, Chief Executive of the Science Media Centre and guest speakers included Press Officers Tom Sheridan from Science Media Centre and Clive Mitchell from British Geological Survey who both discussed the importance of promoting geoscience in the media and subsequently to the wider public and particularly an accurate portrayal. The importance of online media and effective social networking were also discussed.

The journalist panel comprised the following members:

- Dick Alstrom – *The Irish Times*
- David Derbyshire – *Daily Mail*
- Leo Enright – *RTE Radio 1*
- Tom Kennedy – *Science Spin*
- Mike McCann – *BBC NI* (Environment Correspondant)

who imparted their views on the best way for geologists to communicate with the media in an effective manner and on the best way to promote geoscience in the media. Audience participation was

encouraged and prompted a lively discussion on ‘sensationalist’ and hot topics and how this can be misinterpreted or misrepresented in the media.

The panel of geologists comprised the following:

- David Ball - *Independent Hydrogeologist*
- Garth Earls – *Director, GSNI*
- Ian Jackson – *One Geology project co-ordinator*
- Dr. Deirdre Lewis – *Technical Director, SLR Consulting Ireland*
- Prof. John McCluskey – *Seismologist, University of Ulster*
- Prof. Pat Shannon – *Petroleum Geologist, UCD*

Each panellist in turn related brief and sometimes humorous accounts of their encounters with the media along with discussing the importance of enhancing the role of geoscience in the media. Audience participation again led to a lively debate.



**Photo (L-R):** Dr. J. Menuge, Dr. D.Lewis, Dr. E. Doyle, Prof. P. Shannon, G.Jones

## Geotechnical Society of Ireland

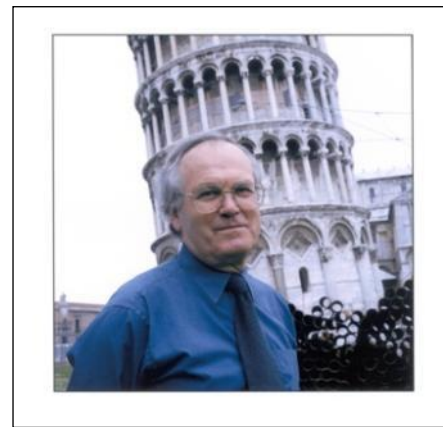
### Shaking the Foundations of Geo-engineering Education (SFGE 2012)

<http://www.sfge2012.com>



The first international conference in NUI Galway's new Engineering Building, entitled *Shaking the Foundations of Geo-engineering Education*, took place between the 4<sup>th</sup> and 6<sup>th</sup> of July 2012. The conference was chaired by Dr. Bryan McCabe and Bryan's Organising Committee included Dr. Declan Phillips (University of Limerick) and other members of the ISSMGE Technical Committee TC306 on Geo-engineering Education. Over 100 delegates attended the event and the following countries were represented: Ireland, UK, France, Netherlands, Spain, Portugal, Italy, Hungary, Croatia, Romania, Greece, USA, Canada, Brazil, South Africa, Australia, New Zealand, Singapore and Japan.

The conference explored key educational challenges, both technical and pedagogical, in geotechnical engineering and related engineering disciplines. This was achieved through 32 lectures and facilitated discussion workshops on the following themes "What should we teach?", "Laboratory and Fieldwork in Geo-engineering", "Computing and technology in geo-engineering" and "Student-centred learning in geo-engineering".



**Photo:** Professor John Burland (Imperial College)

Eminent international keynote speakers included Prof. Paul Mayne (Georgia Tech), Prof. Steve Ressler (US Military Academy at Westpoint), Prof. John Atkinson (City University, London and Coffey Geotechnics), Dr. Brian Simpson (Arup Geotechnics, London) and Prof. Rich Felder (North Carolina State University). The blend of keynote addresses was deliberately chosen to prompt geo-engineering teachers and practitioners to debate geo-engineering education issues in the context of best practice in engineering education. Prof. John Burland (Imperial College London) was also honoured at SFGE 2012 for his lifelong contribution to education in soil mechanics and delivered a Special Invited Lecture. SFGE 2012 also incorporated a workshop of the

popular ASCE Excellence in Civil Engineering Education (ExCEED) programme which enjoyed an appeal beyond geo-engineering.

It is intended to disseminate the findings from the discussion sessions in due course. Also, it is expected that a follow-on conference (SFGE 2016) will take place in Brazil in four years' time.

**Bryan McCabe BA BAI PhD CEng MIEI Eurling**  
([bryan.mccabe@nuigalway.ie](mailto:bryan.mccabe@nuigalway.ie))

#### **New revision of the Engineers Ireland Ground Investigation Specification**



**Photo:** Coring rig on the banks of the Foyle River

The current 2006 specification is being updated to reflect the introduction of Eurocode 7 plus recent developments in geophysics and services investigations. The review group is being led by Paul Quigley (IGSL) ([paulquigley@igsl.ie](mailto:paulquigley@igsl.ie)) and there will be a consultation period later this year. Input is welcome into the revised document.

#### **Geotechnics on Major Irish Roads 2000 - 2010 - A decade of Achievement**



The Geotechnical Society of Ireland is hosting a one day seminar on recent road projects on Thursday, 11th October 2012 in at The Heritage Hotel, Portlaoise, County Laois. The new national motorway network is one of the lasting positive legacies from the Celtic Tiger era and Irish engineers and geologists have developed significant expertise from this work. Recognised geotechnical experts share their insights into critical issues including:

- problems and opportunities of glacial till soils as fill material;
- the successes and failures of piled embankments in bridging over very deep soft ground;



- how to assess the risks, adequately investigate and design mitigation measures for roads traversing karst bedrock;
- design, construction and performance of temporary works including open excavations, soil nail reinforced slopes and sheet pile support systems for roads projects in a variety of soils; and
- the proposed changes to DMRB and SRW Series 600 in respect of Earthworks that has recently been published by the NRA and the rationale and reasons for these changes.

The event is CPD accredited by the IGI. Full details of the programme, speakers and booking can be found at [CPD Conference: Geotechnics on Irish Roads, 2000 – 2010](http://CPD Conference: Geotechnics on Irish Roads, 2000 – 2010)

Paul Quigley Chartered Engineer (**Arup**)

**Follow up/Reference:**

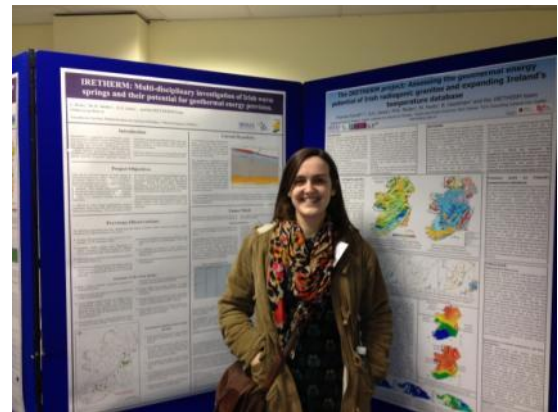
<https://engineersireland.webex.com>

**55th Irish Geological Research Meeting**



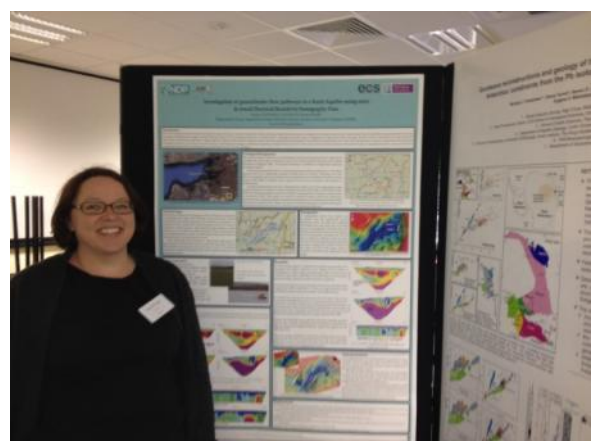
The 55th Irish Geological Research Meeting was hosted by University College Cork and the School of Biological, Earth & Environmental Sciences (UCC) over the weekend of the 17th - 19th February, 2012.

IGRM is the premier forum for Irish geological research with all talks either about Irish geology and/or showcasing Irish-based geological research. The weekend comprised over 40 talks including **two** keynote lectures and over 40 posters from research students in 18 different institutions.



**Photo:** Hydrogeologist Sarah Blake from Iretherm

Presentations were diverse covering the full range of geology and geophysical research with study sites from the mid-Atlantic to all seven continents. International co-authors highlighted collaborations from over 16 countries.



**Photo:** Geophysicist EurGeol Yvonne O'Connell PGeo from NUIG

**Follow up/Reference:**

<http://143.239.128.67/en/bees/research/IGRM2012/>

## EPA releases preliminary study into the use of hydraulic fracturing (“fracking”) technology

*Below is a statement released by the EPA in May following publication of their preliminary study into hydraulic fracturing technology:*



**Date released:** May 11 2012, 10:00 AM

The EPA has today published a report from a preliminary study on current knowledge about the environmental considerations and impacts of shale gas exploration and extraction, and in particular the use of hydraulic fracturing technology. The study: *Hydraulic Fracturing or ‘Fracking’: A Short Summary of Current Knowledge and Potential Environmental Impacts* was conducted by the University of Aberdeen.

The report provides an introduction to the environmental aspects of fracking including a review of regulatory approaches used in other countries and areas for further investigation and research.

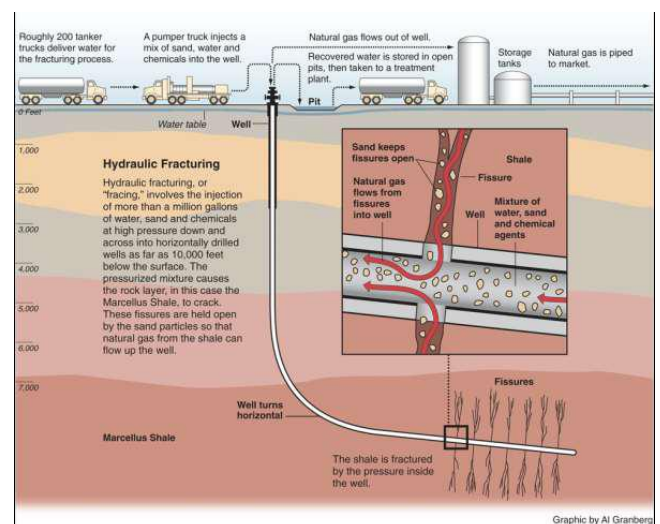
The information provided by this preliminary research project will now be used to inform a more comprehensive study to be commissioned by the EPA, in co-operation with the Department of Communications, Energy and Natural Resources, the scoping of which will also involve the Department of Environment, Community and Local Government and

the Commission for Energy Regulation. The EPA expects to commission this second study in 2012.

The report *Hydraulic Fracturing (‘Fracking’): A Short Summary of Current Knowledge and Potential Environmental Impacts* is available on [the EPA website](#).

**Main findings:** The main findings of the preliminary study are set out under three headings:

1. potential environmental impacts,
2. regulatory approaches used in other countries and
3. establishing best practice.



**Figure extracted from EPA report** (Figure 1. Schematic diagram showing the general features of a fracking operation. Source: ProPublica web site <http://www.propublica.org/series/fracking>)

### Potential Environmental Impacts:

- According to the study, the integrity of the well is vital for minimising potential impacts, particularly with regard to groundwater contamination from leaks and well blowouts, where fracking fluid in particular could enter

groundwater aquifers. Fracking fluid could possibly contain chemical additives, methane (natural gas), and other substances present in the shale such as metals and naturally occurring radioactive material.

- The research notes that knowledge of local geology is important in order to assess the potential for impacts on groundwater quality and tremors/earthquakes. Shale formations in Europe are generally more complex than in the US, where many such projects have taken place, and detailed knowledge of local geology may therefore be of more importance in Europe.
- The report found that there is uncertainty surrounding the “carbon footprint” of natural gas from shale, with disagreement as to whether it is equivalent to conventionally extracted natural gas, or whether the effective footprint is significantly greater due to leakage of methane to atmosphere during the extraction process. This is an issue for the global environment because of climate change and may become increasingly important if shale gas extraction continues to develop.
- The report also outlined other potential impacts due to the large volumes of water used in fracking, and provides information on the nature of additives which have been used in fracking operations, as well as outlining some of the options currently available for storage and disposal of flowback fluid.

#### **Regulatory approaches in other Countries:**

The study looked at regulatory approaches in Europe, North America and other regions, and presents available information on regulatory approaches in various jurisdictions. The study states that the US has the most experience in this area, as the industry is most developed there. However, it makes clear that EU Directives on Mining Waste and water protection (i.e. the Water Framework Directive) will place significant constraints on shale gas extraction activities in Europe which do not exist in the US, with regard to disposal of wastes and waste fluids.

#### **Establishing Best Practice:**

The report suggests topics for further research to determine Best Practice, such as the feasibility of additive-free fracking fluids, flowback fluid treatment, the disposal and minimisation of methane losses to air and an increased understanding of shale geometry in complex formations.

The report also presents a list of requirements to be considered in establishing and achieving Best Practice. These include adequate monitoring and assessment of shale gas extraction installations and the receiving environment.

#### **Background to the University of Aberdeen study:**

In October 2011 the EPA commissioned the University of Aberdeen to conduct preliminary research to document what is currently known about the environmental considerations and impacts of shale gas exploration and extraction, the regulatory approaches used in other countries, best practice,

and in particular the use of hydraulic fracturing (“fracking”) technology. The budget for this study was limited to €6,000.

The objectives of the research project were to provide information on:

- The potential environmental impacts of fracking, in particular, and shale gas extraction in general.
- The potential for methane and chemical migration into groundwater as a result of fracking.
- The role of local geology in successful fracking and shale gas extraction.
- The regulatory approaches taken in other countries where the fracking technique has been used.
- Best Environmental Practice for shale gas exploration and extraction using the fracking technique, including the possibility of fracking without the use of chemicals.

### **Background to the Regulation of Unconventional Fossil Fuels and Shale Gas involving Fracking in relation to Ireland**

In early 2011, the Department of Communications, Energy and Natural Resources awarded two-year petroleum licensing options to three companies in respect of areas in the north-west and mid-west of the country. A licensing option gives the holder first right to apply for an exclusive exploration licence over the area concerned. Standard exploration

activity, such as carrying out of seismic surveys and exploration drilling, may not be carried out during the term of these licensing options, however should exploration licences be granted in 2013, then the holders would have to commit to drill at least one exploration well in the first three years of the exploration licence. The exploration phase is subject to environmental impact assessment.

The extraction of shale gas on a commercial scale would require an IPPC licence in accordance with the provisions of the EPA Acts 1992 to 2011. Other regulators likely to have a statutory role in relation to the use of hydraulic fracturing include DCENR, the Commission for Energy Regulation (CER), An Bord Pleanála, local authorities and the Health & Safety Authority.

The EU Commission has set up an Ad Hoc Technical Working Group to examine the regulation of such activities at EU level.

## **Hydraulic Fracturing Reporting**

**Gareth LI Jones**

About a year ago, President Lewis and the IGI Board asked me whether I would be prepared to make comments on the subject of hydraulic fracturing. Not as an IGI spokesman, but simply as a neutral observer. I agreed to this and started reading up reports and papers, and I watched the film (not documentary) “Gaslands”. I speedily found that there was a lot of hot air and very little good science

available. However I think I managed to get a balanced view of the pros and cons of the matter.



**Photo:** EurGeol Gareth Ll Jones PGeo

In August 2011, I gave the first of three radio interviews to stations in Dublin, Clare and Donegal. Uniformly they were reasonable interviews where the journalist just wanted basic information. These were followed by a request from *Primetime* to do an interview on the topic. RTE brought a producer and a full film team to my house and we recorded a detailed interview, unfortunately they found that they were unable to fit this into their programme. My cynical view is that I was not sensational enough.

This year I gave a paper to the annual IAH meeting – “**Hydraulic Fracturing for Shale Gas in Ireland – The Potential**” (available as a pdf shortly at <http://www.iah-ireland.org/current/pastevents.html> ). This was followed by a paper to a hot-topic session of the International Water Association – World Congress on Water, Climate and Energy, held in Dublin in May 2012 at the National Convention Centre. This presentation “Will Shale Gas Hydraulic

Fracturing Save Ireland?” dealt more with the economic and regulatory side.

In June I carried out an interview with Gerry Flynn which will be carried in the next edition of *Inshore Ireland*.

The position now is that the EPA in the USA and the EPA in Ireland are both carrying out detailed surveys which will help provide further illumination on the topic, hopefully within the year.

#### **Follow up/References:**

Gareth’s interview with Gerry Flynn appears in the June/July issue of *Inshore Ireland* which can be accessed at the following link:

[http://www.inshore-ireland.com/index.php?option=com\\_content&task=view&id=842&Itemid=183](http://www.inshore-ireland.com/index.php?option=com_content&task=view&id=842&Itemid=183)

## **National Heritage Week 2012**



National Heritage Week organised by the Heritage Council\* was held this year on the 18th to 26th August. The aim of National Heritage Week is to protect and enhance the richness, quality and diversity of our national heritage for everyone and to increase awareness of Ireland’s National Heritage and to highlight its importance to public policy and everyday life.

This year's National Heritage Week comprised of over 1400 events across Ireland. A number of events relating to the geosciences were held across the country comprising a range of fieldtrips, lectures and workshops.



**Photo:** And they're off...

In Wicklow a walking tour entitled Avoca "The Greatest of all Mines" led by Nick Coy of Avoca Heritage was well attended with over 50 participants including a number of familiar faces partaking in a leisurely walk over Ireland's most fascinating mining landscape. Nick Coy presented a fascinating presentation on the geology, flora, fauna, mine buildings and the social history of the area over three centuries.



**Photo:** The presentation continues further along the route



**Photo:** Avoca Copper and Sulphur Mine

#### **Follow up/Reference:**

*\*The Heritage Council is the statutory body charged with identifying, protecting, preserving and enhancing Ireland's national heritage. National heritage includes Monuments, Archaeological objects, Heritage objects, Architectural heritage, Flora, Fauna, Wildlife habitats, Landscapes, Seascapes, Wrecks, Geology, Heritage gardens and parks, and Inland waterways. [www.heritageweek.ie](http://www.heritageweek.ie)*

## **Work Experience 2012**

It's that time of year when summer work placements are coming to an end with students heading back to school or university. Work experience should be an integral part of a student's education giving them a taste for what their chosen career could be like.

This article includes pieces from three individuals from different educational background summarising their experience in the professional environment this Summer.

### **Robert Reid– Arup Industrial Placement Student**

As a 3rd year civil engineering student of NUI Galway, we are required to do a five month placement in industry as part of our degree program. For me, I

was delighted to accept the offer to work in Arup's Ground Engineering Department where I would get the opportunity to work with some of the country's top geotechnical and maritime engineers.



**Photo:** Robert on site on Wolfe Tone Quay, Dublin

Before I started I was nervous to be in such a specialised environment where I considered my knowledge in geology and soil mechanics to be basic. However, upon starting my placement I found that the information I had learnt in both of those modules as well as in AutoCAD have been hugely useful in my work. I have been able to turn what I have learnt from all those lectures and finally apply them in a real working environment where I have been working on the design of some of Ireland's most exciting infrastructure projects at the minute.

Everyone at Arup has been so friendly and helpful to me in giving up their time to help me learn and progress as an engineer. People have gone out of their way to ensure I understand what's going on even when I get mixed up on the basic principles. I have seen my computational, interpersonal and personnel management skills vastly improve as I work

in a highly motivated team environment in an exciting and fast-paced atmosphere to a deadline. As well as improving my knowledge of programs such as excel and AutoCAD, I'm also learning how to use AGS gINT as well as Slope 19.0 and how essential they are to geotechnical engineers.

The best aspects of my job are the level of responsibility I was given at an early stage and the variety I get working in the office and on site. I never know what I will be doing from day to day. Some of the projects I have had the privilege of working on this summer include the a quay wall emergency remediation works, an urban flood alleviation scheme, an offshore sustainability project and a national road bypass where I've played a key role in desk studies and site investigations and seen how they in turn can affect the design of the projects.

On completion of my placement, I return to NUI Galway for my final year where I hope to undertake a final year project in soil mechanics as well as choosing geology related modules where I hope I can benefit from the knowledge I've learnt at Arup. When I started my placement I considered myself as a budding civil engineer but as each day passes I consider myself more and more as a geotechnical engineer. They say it's a rocky road ahead to Ireland's economic recovery and that worries some people, but a rocky road is exactly where I see myself in the future.

**François Robin – SLR Consulting/ Summer Engineering Student** [frobin@slrconsulting.com](mailto:frobin@slrconsulting.com)



My name is François Robin and I am a French student studying Energy Systems Engineering, based at Ecole des Mines in Nantes, France.

I am currently doing a three-month internship in SLR Consulting in Ireland, on a geothermal energy project. This field is not really studied extensively in my school and I had to start learning from the beginning. Even though I was aware of the technical parts of a geothermal plant, I was not familiar with the geology involved. I joined a team of geologists in SLR, so I do not have to study in detail this huge and complex field.

As a student, I haven't got huge experience of working in companies, but I notice that Irish people are more flexible, in comparison with my little experience of the corporate world. I like working in Ireland and living in Dublin, which is a wonderful city. This internship with SLR is a great experience for me.

**Charlie Carlisle – SLR Consulting/ Member-in-Training, IGI** [ccarlisle@slrconsulting.com](mailto:ccarlisle@slrconsulting.com)

Since graduation from NUIG's scholarly Earth and Ocean Sciences Department, I struck out trying to call into as many geologists as there are in the Yellow

Pages - this is where the practice from those presentations came in handy in the outside world... I would call in trying to get a handle on the different industries available, trying to find out what would suit me in the long-term, but especially trying to get a tip off as to where to start.



**Photo:** Charlie and friends hard at it in Parys mine, Wales.

Everywhere I went, the advice was Canada, Canada, Canada, and so the new mission was trying to get a tip-off of something really interesting coming available across the water. That was when I got my first break with short term work: helping carry the equipment for an Apex geophysicist. The Applied Geosciences and Field Techniques classes at least kept me in the loop for this work, so I had some idea what was happening... After week one, with my foot in the door and some relevant experience on the CV, that was when it took off.

That first bit of experience is the crucial bit: even just a week of it! No matter what the job, or pay at least you've then something to bring to any other companies. With a bit of notice before calling in, the geologists were more than happy to take time out to show me around, show me their projects, and



part with some advice - some even took my number to give me a heads up if they heard of work!

For the most part, companies are never sure how long the jobs will last. With that in mind, I accepted any available contract work, registering as a sole trader under the guise of Carlisle Earth and Ocean Services (easily done - ask revenue!). This way I could offer people a couple weeks' work here and there, all the while building up that experience. Eventually that led to an exciting prospect with SLR Consulting, sub-contracting to all sorts of industries - minerals, environment, petroleum, marine, and just getting started! It sure beats working in a college shop...

NUIG's EOS course sets one up for everything the worlds of geology and applied earth sciences can throw at you. The working world teaches you how to use it. My advice to anyone is to get to know as many people as you can, and don't overly rely on sending out hundreds of CVs. Join any society with an acronym: the IGI, GAI, IAEG, are all active through the year. Go to every meeting. Talk to people. While you're a student, these things are inexpensive but invaluable!

The world of geology is a very small world, but one that's constantly ticking over, forever looking to fill places left by those who came and went. A driver's licence is key, and be prepared to travel: others from the class of 2011 are in Angola, Australia, England, even one offshore Iceland! Not one has looked back.

## European Federation of Geologists (EFG)



The annual report of EFG activities for 2011 is available for download at the following link:  
. <http://www.eurogeologists.de/>



This report contains information on Board and other EFG activities, projects, panels of experts, communication issues and financial matters.

**Follow up/Reference:**

<http://www.eurogeologists.de/>

## Book Review



Please submit your book reviews to [marie.fleming@arup.com](mailto:marie.fleming@arup.com).

## Conferences

The IGI are organising a seminar entitled:

***“RISK MANAGEMENT IN THE GEOSCIENCES: PRINCIPLES AND PRACTICE”.***

The Seminar will take place in Horse and Jockey Hotel (Horse and Jockey, Co. Tipperary) on Wednesday 17<sup>th</sup> October. Details can be found on the IGI website ([www.igi.ie](http://www.igi.ie)).

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### **IRISH GEOLOGICAL ASSOCIATION GOLDEN JUBILEE YEAR 2012**

IGA –Celebrating 50 years of exciting geology - and in the City of Science.

For more information on the IGA’s proposed program of events please refer to:

<http://www.geology.ie/>

...

### **INFOMAR invites you to the 2012 Annual Seminar**

Dates: October 11th-12th, 2012

Location: University College Cork

Numbers limited so please register at <http://www.eventelephant.com/infomarannualseminar2012>

...

### **Engineers Ireland (Geotechnical) Geotechnics on Irish Roads, 2000 – 2010 - A Decade of Achievement**

Thursday October 11<sup>th</sup> 2012  
Heritage Hotel, Portlaoise, Co. Laois

Details can be found at [CPD Conference: Geotechnics on Irish Roads, 2000 – 2010](#)

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**All Ireland Health & Safety Conference**  
24th October 2012 City Hotel Armagh  
<http://www.imqs.ie/>

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## News of Members

Congratulations to EurGeol Maeve McElligott PGeo on her recent marriage to Gavin Quinlavin.



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Congratulations to Sean Finlay who has been appointed as Business Development Manager at Geoscience Ireland.



## Photo-File

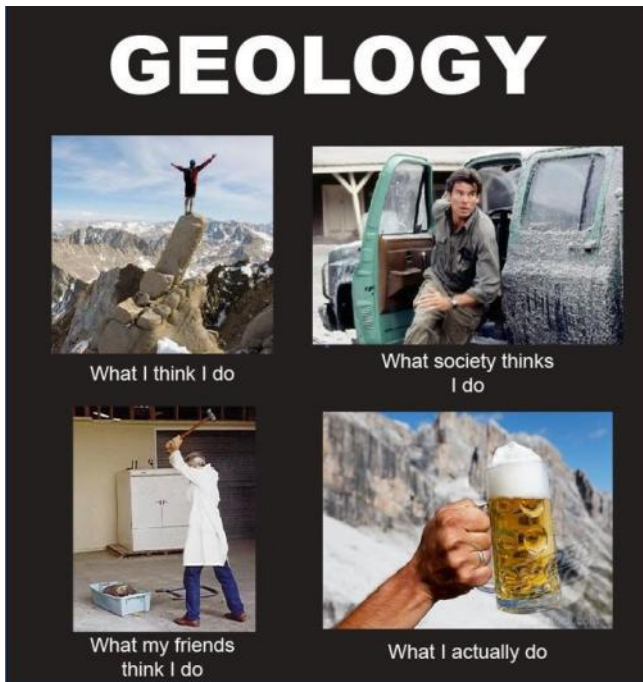


Photo submitted by ANON

Please send a favourite geo – or environmental picture to this spot.

## IGI Subscriptions

All 2011 CPD forms should have been submitted prior to Friday 27<sup>th</sup> April 2012. All CPD forms will be acknowledged, however in the event you do not receive an acknowledgment please contact the IGI Office on [info@igi.ie](mailto:info@igi.ie).

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