

Exploration for a sub-sea coal deposit and the impacts of the 2010 M8.8 Earthquake, Chile

By Iain Henrys

At 03:34:23 am (06:34:23 UTC) on the 27th February 2010, Central Chile was struck by a M8.8 earthquake. In total, 525 people lost their lives and 25 people were declared missing. The quake was so powerful that seismologists estimated it may have shortened the length of the day by 1.26 microseconds and moved the Earth's axis by 2.7 milliarseconds - about 8 cm.

Around the time of the earthquake, Iain Henrys was working in and around the cities of Arauco and Lota in Bío Bío Region, leading the early stages of an exploration programme focused on evaluating the brownfield opportunities of the sub-sea coal deposits beneath the Gulf of Arauco.

differential displacements of the sea floor across the Gulf of Arauco.

Anecdotes of the events and their affects following the earthquake on the exploration crew, local infrastructure and the general population will also be provided. There will also be a lesson on why, when living in earthquake prone regions, one shouldn't procrastinate when it comes to carrying out the weekly shopping!

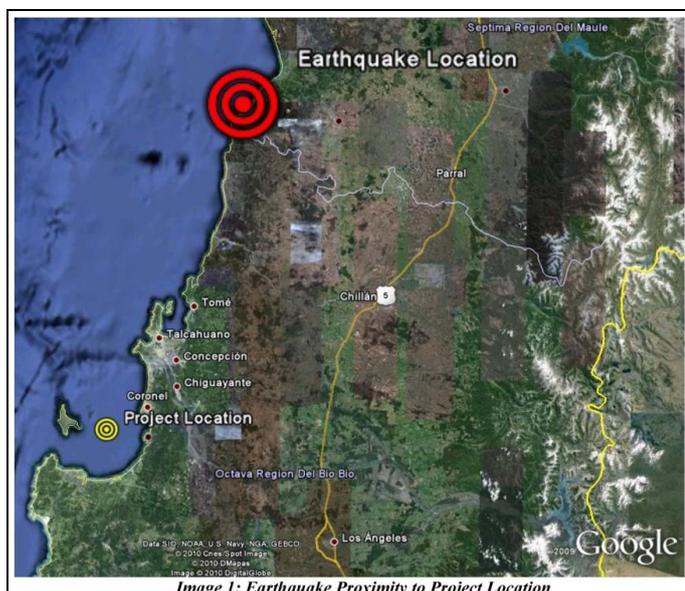


Image 1: Earthquake Proximity to Project Location

Contractors were carrying out this bathymetric survey in the Gulf when the earthquake occurred. The survey vessel had to ride the subsequent tsunami. Due to circumstances encountered on the boat during the period of the quake, an echo sounder was switched on which ended up inadvertently recording the waveform of the tsunami on to paper. This will be shown during the talk for the first time.

The talk will also describe the geological and geophysical activities carried out before and after the main earthquake which resulted in the identification of



Iain Henrys is a mineral exploration geologist with over 20 years' experience in mineral exploration geology and geoscience. His commodity experience includes coal, gold and base metals. He has worked in the UK, West Africa, numerous South American countries, Indonesia, Iran and New Caledonia. The 27th February 2020 date of the talk will be the 10th anniversary of the earthquake. The talk is dedicated to all of those who died or went missing as a result of the quake and especially to the late Luis Avilla who provided invaluable assistance and friendship to Iain, his family and colleagues before and following the earthquake event.

TIME: Lecture starts promptly at 7.30pm

Venue: Lecture Theatre 137 of Liverpool John Moores University, Byrom Street L3 3AF, for campus map and directions see: <http://www.liverpoolgeologicalsociety.org/meetings.htm>.

Organised Jointly by the North West group of the Geological Society of London and Liverpool Geological Society
For further information contact the group secretary, Catherine Kenny at: Geologicalsociety.northwest@gmail.com

CPD: These events may be considered for contributing to a recognised Continuing professional Development (CPD) scheme as part of personal development. Delegates should check their individual scheme requirements.

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