



Joint and Co-operative Inversion of Electromagnetic and Seismic Data Workshop
Tuesday 19 November 2013, 09:00 – 17:15
DET CRC Head Office/Boart Longyear, 26 Butler Boulevard
Burbridge Business Park, Adelaide Airport

Presenters

Graham Heinson, DET CRC Project 2.4 Leader, University of Adelaide
 Xu Liu, DET CRC Researcher, University of Adelaide
 Sebastian Schnaidt, DET CRC PhD Student, University of Adelaide
 Brett Harris, DET CRC Program 2 Leader, Curtin University
 Anton Kepic, DET CRC Researcher, Curtin University
 Andrew Pethick, DET CRC Researcher, Curtin University
 Eric Takam, DET CRC Researcher, Curtin University
 Le Van Anh Cuong, DET CRC PhD, Curtin University
 Duy Thong Kieu, DET CRC PhD, Curtin University

Location

DET CRC Head Office/Boart Longyear, 26 Butler Boulevard, Burbridge Business Park, Adelaide Airport (refer attached map).

Agenda

TIME	SESSION TITLE
9.00 - 9.30	Overview of Joint Inversion : Graham Heinson (University of Adelaide)
9.30 - 9.45	Joint inversion- What data is needed and how should it be acquired?: Anton Kepic (Curtin University)
9.45 - 11.00	3D MT constrained post stack inversion: Eric Takam (Curtin University)
11:00 – 11:30	MORNING TEA
11.30 -13.00	A structural 2D MT and joint inversion algorithm: Xu Liu (University of Adelaide)
13:00 – 14:00	LUNCH
14.00 - 14.30	3D seismic dip attributes and conductivity gradients: Brett Harris (Curtin University)
14.30 - 15.00	MT and model-based post stack seismic inversion: Le Van Anh Cuong (Curtin University)
15.00 - 15.30	Uncertainty analysis in geophysical modeling: Sebastian Schnaidt (University of Adelaide)
15:30 – 16:00	AFTERNOON TEA
16.00 - 16.30	Fuzzy logic in cooperative inversion: Duy Thong Kieu and Anton Kepic (Curtin University)
16.30 - 17.00	Importance of parallel computing for cooperative inversion workflow: Andrew Pethick (Curtin University)
17.00 - 17.15	Wrap up: Graham Heinson (University of Adelaide)

Workshop Overview

High-quality geophysical data sets are routinely being collected around existing mines and mineral targets. Such geophysical measurements are used to image the Earth, often in three dimensions, through a process called inversion. However, given the depth of many target regions, these images generally have poor resolution and suffer from an ambiguity of interpretation. Joint inversion is a hot area of geophysical research, combining more than one data set to produce a single geological model. Not only do we get more accurate models of the Earth by using multiple data sets, we also benefit from the mutual constraints between data sets.

This Workshop will demonstrate algorithmic and workflow approaches developed in Phase I of DET CRC Project 2.4 to combine 3D seismic and MT data to produce more accurate and better resolved models for mineral explorers.

Refreshments

Morning tea, lunch and afternoon tea will be provided for attendees.

Logistics/Transfers

If you require a transfer departing DET CRC/Boart Longyear at the conclusion of your workshop please select this option via the online registration form. Please direct any queries to Anna Porter at annaporter@detcrc.com.au or 08 8375 8483.

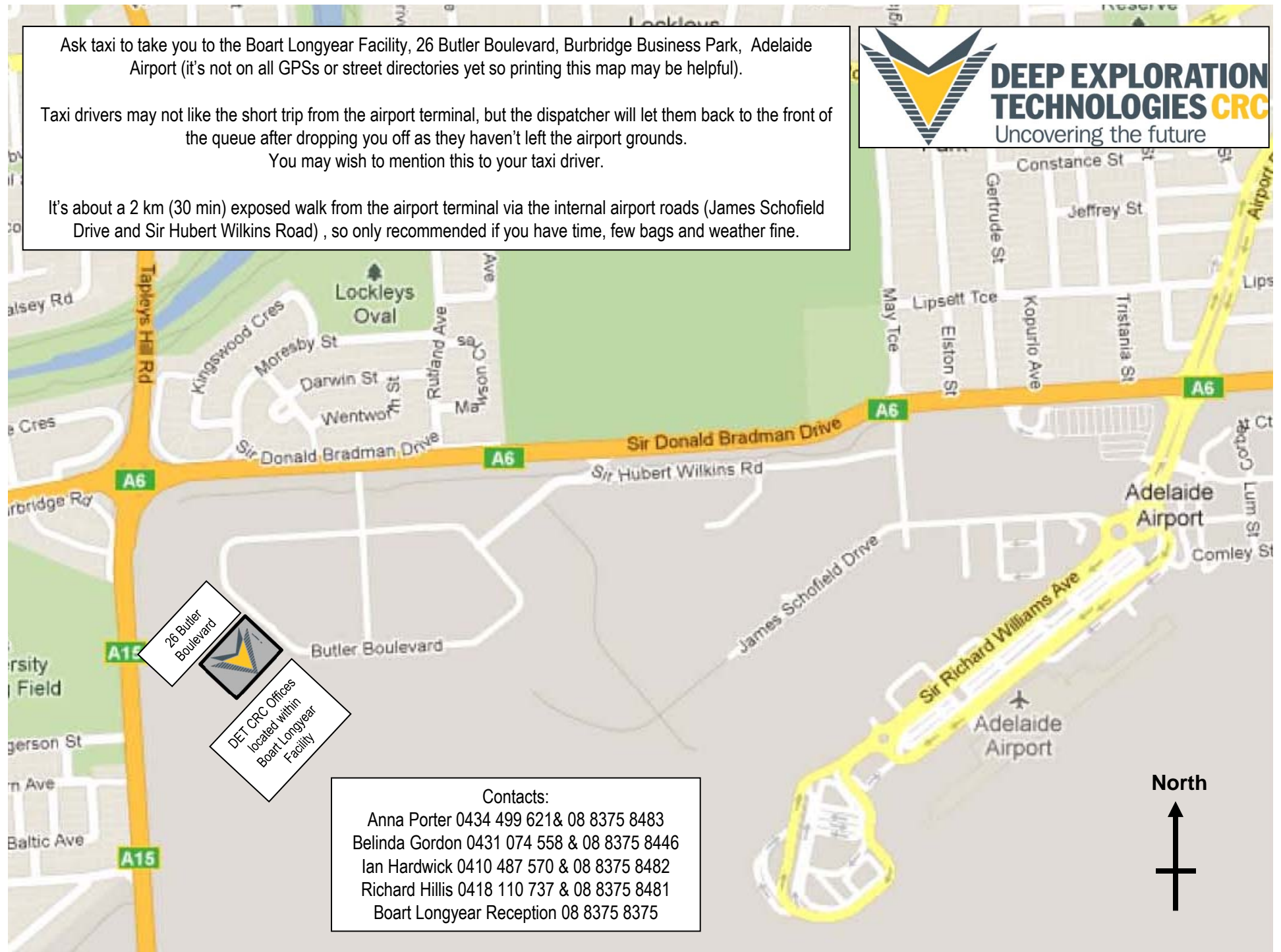
Contacts

Anna Porter: (08) 83758483 or 0434 499 621
Belinda Gordon: (08) 8375 8446 or 0431 074 558
Graham Heinson: (08) 8303-5377 or 0408 087 631

Ask taxi to take you to the Boart Longyear Facility, 26 Butler Boulevard, Burbridge Business Park, Adelaide Airport (it's not on all GPSs or street directories yet so printing this map may be helpful).

Taxi drivers may not like the short trip from the airport terminal, but the dispatcher will let them back to the front of the queue after dropping you off as they haven't left the airport grounds.
You may wish to mention this to your taxi driver.

It's about a 2 km (30 min) exposed walk from the airport terminal via the internal airport roads (James Schofield Drive and Sir Hubert Wilkins Road) , so only recommended if you have time, few bags and weather fine.



Contacts:
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