

Aquitards, aquifers and mining National Centre for Groundwater Research and Training Australian Centre for Sustainable Mining Practices

Never Stand Still

Faculty of Engineering

School of Mining Engineering

	Thursday 27th March, G51, Ground Floor, Old M	lain Building, Kensington campus
9:00	Professor Ros Taplin	Welcome & Challenges
	(ACSMP, UNSW Australia)	
9:15	Professor Lee Barbour	Geological weighing lysimeters - applications to
	(University of Saskatchewan, Canada)	mine hydrology
10:10	Dr Wendy Timms	Tight aquitards & leaky aquitards
	(NCGRT, ACSMP, UNSW Australia)	
10:30	Morning Tea	
11:00	Professor Ian Acworth	Spectral analysis of gravity data to quantify
	(CWI, WRL, UNSW Australia)	subsurface moisture changes
11:20	Richard Crane	Characterising the hydraulic conductivity and shrin
	(NCGRT, CWI,WRL, UNSW Australia)	swell properties of natural and engineered clay-
		bearing materials using centrifuge permeameter
		techniques.
11:40	Dr Simit Raval	
	(ACSMP, UNSW Australia)	Remote sensing techniques for detecting vertical
		and horizontal displacements
12:00	Lunch and AVIE demonstrations	Advanced visualisation and interaction mining
		environment
1:00	Dr Ken Mills	Observations of ground disturbance above longwa
	(Strata Control Technology)	panels and implications for groundwater
1:50	Mahdi Zoorabadi	Prediction of rock mass permeability
	(UNSW Mining Engineering, UNSW Australia)	
2:10	Michelle Irvine	Using porewater chemistry profiles to infer vertical
	(NCGRT, Flinders University)	fluxes through a regional aquitard
2:30	Afternoon Tea	
2:50	Dr Daan Herckenrath	Mitigating up-scaling and dual-phase flow errors in
	(NCGRT, Flinders University)	regional CSG groundwater impact simulations
3:10	Katarina David	Response of overburden (constrained zone) above
	(NCGRT, School of Mining Engineering, UNSW	longwall mines - hydrogeology, geomechanics and
	Australia)	isotope tracer techniques
3:30	Associate Professor Bryce Kelly	Hydraulic connectivity and architecture in
	(CWI, NCGRT, School of Biological, Earth and	sedimentary basins
	Environmental Sciences, UNSW Australia)	
4:30	Canapes and Drinks, JGs Café, Dalton Building	









	Friday 28th March	
9:00	Summary of Day 1, Overview of WRL tour	
9:10	Dr Steve Bouzalakos (NCGRT, ACSMP, UNSW Australia)	Stress-dependent geotechnical behaviour of aquitards
9:30	Professor Lee Barbour	Evaluation of soil-atmosphere-vegetation
	(University of Saskatchewan, Canada)	interactions for mine closure applications
10:30	Morning Tea	
11:00	Dr Furqan Hussain	Simulating impacts of geological CO ₂ storage on
	(CO2CRC, School of Petroleum Engineering, UNSW	groundwater flow
	Australia)	
11:20	Dr Helen Rutlidge	Selected applications of iTRAX core scanner and
	(UNSW Analytical Centre, NCGRT)	laser ablation ICPMS
11:40	Dr Wendy Timms	Aquitard permeability at various scales: in situ, lab
	(NCGRT, ACSMP, UNSW Australia)	and geotechnical centrifuge technology
12:00	Mahdi Zoorabadi	New Insights in Field Tests to Estimate the Hydraulic
	(UNSW Mining Engineering, UNSW Australia)	Conductivity of Jointed Rocks
12:30	Gate 14, Barker Street, packed lunch on bus to Manly Vale campus	
1:30-3:00	Tour UNSW WRL	
	Geotechnical centrifuge & labs	
3:00	Bus departs WRL to airport, then to UNSW	
	Kensington	







