



DEEP EXPLORATION TECHNOLOGIES **CRC**

Uncovering the future



DET CRC Background


- DET CRC will develop more cost-effective, safer and more environmentally-friendly methods for deep mineral exploration
- incorporated entity with independent board
- \$49M cash & \$62M in-kind support over 8 years from Australian government and participants
- participants include miners, research providers and service companies
- DET CRC head office to be co-located with Boart Longyear's new Asia Pacific office in Adelaide
- 12 projects scoped by industry have commenced and are contracting ~100 researchers in 9 different organisations
- unique model of commercialisation of IP through the service sector
- participants: \$450k pa (~31x leverage)
- affiliates: \$10k pa with colleges for juniors, service providers and geological surveys



DET CRC will deliver revolutionary new technology such as coiled-tubing drilling systems with logging-while-drilling capability. Drilling and logging results will be fed real-time to remote geological modelling capability in order to plan immediate (within 24 hours) follow-up drilling.

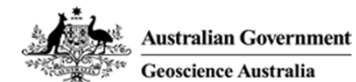
DET CRC Progress

- allocated approximately one third of CRC's lifetime resources to a portfolio of three year projects
- projects ongoing for 6-9 months as of end June 2011
- design calculations underway for coiled tubing drilling system
- lab equipment for drilling sweetspot analysis commissioned and initial experiments undertaken
- carbon fibre drill rod manufactured and being lab tested (lighter and suitable for embedded electronics)
- Boart Longyear SC9 rig located at Brukunga Test Facility
- three driller training programs undertaken at Brukunga (one indigenous-focused)
- seismic while drilling tests have confirmed seismic signals from drill bit not rig
- geochemical neutron logging tool being manufactured
- logging-while-drilling gamma tool being manufactured
- biotite geochemistry shown to provide possible vector to gold amenable to top-of-hole, portable XRF detection
- 10 PhD projects commenced, 6 commencing shortly



Coiled tubing drilling will permit cheaper, faster and safer drilling of more stable holes because pipe connections are not required. Logging-while-drilling will remove or greatly reduce need for core and lengthy core analysis. Combined with real-time geological modelling, these will permit follow-up drilling without rig de-mob and re-mob.

Participants in the Deep Exploration Technologies CRC



Affiliates of the Deep Exploration Technologies CRC

