

# German Creek Gas Management

Presentation to ACARP  
Gas & Outburst Workshop  
16<sup>th</sup> Sept 2005

Bruce Robertson

# German Creek Gas Management History

## ■ Central Colliery

Pre-drainage, Goaf Drainage late 1980s

## ■ Southern Colliery

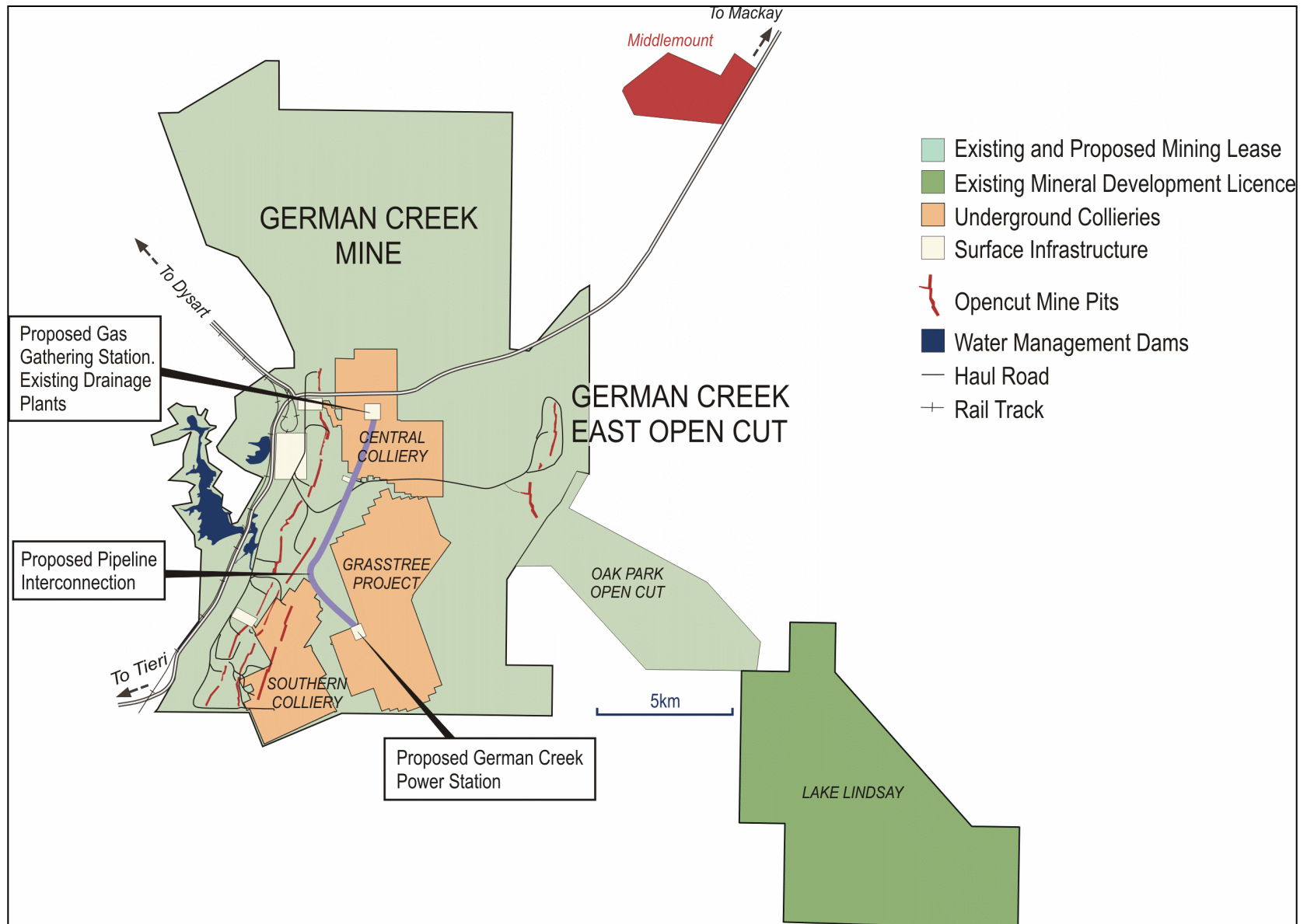
H<sub>2</sub>S management, CH<sub>4</sub> drainage for frictional ignition hazard

## ■ Grasstree Colliery

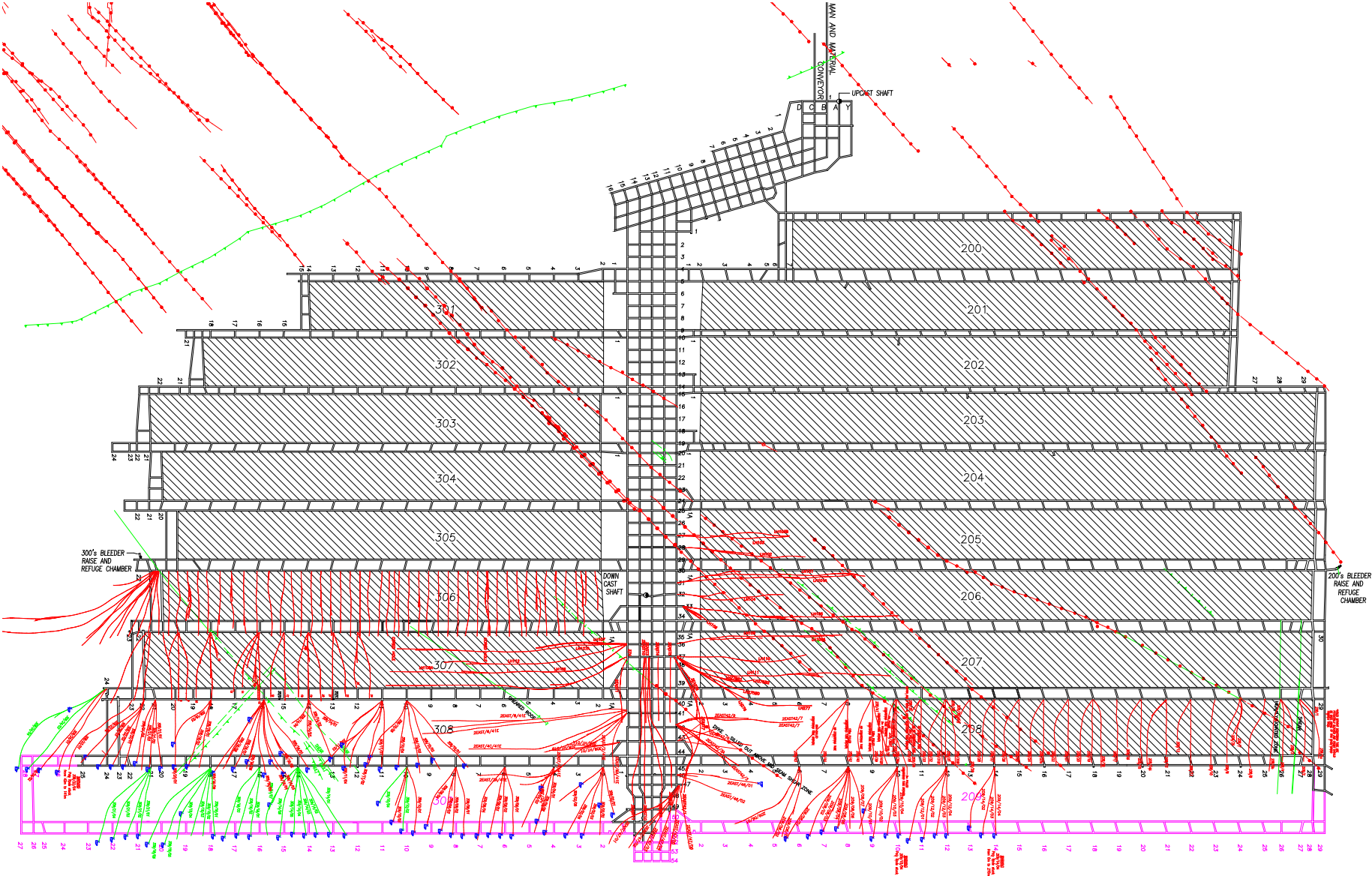
Outburst threshold content from start

## ■ Gas Utilisation

# German Creek Location



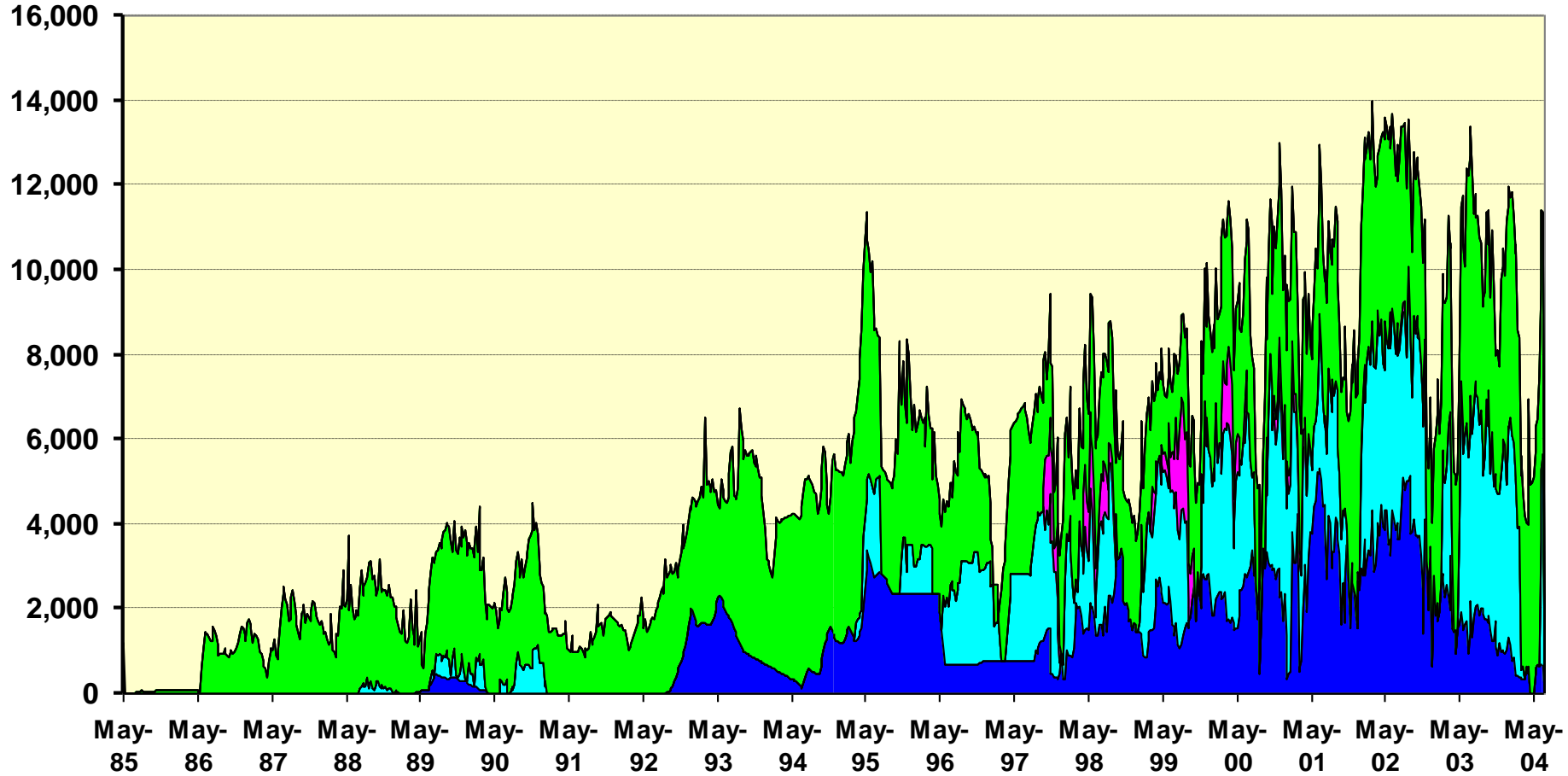
# Central Colliery Pre-Drainage Plan (typical)



# Central - Gassiness

CH<sub>4</sub> - m<sup>3</sup>/hr

## Central Colliery Gassiness



■ Predrained

■ Goafdrained

■ Goafblow

■ Ventilation

# In Seam Drainage Plant

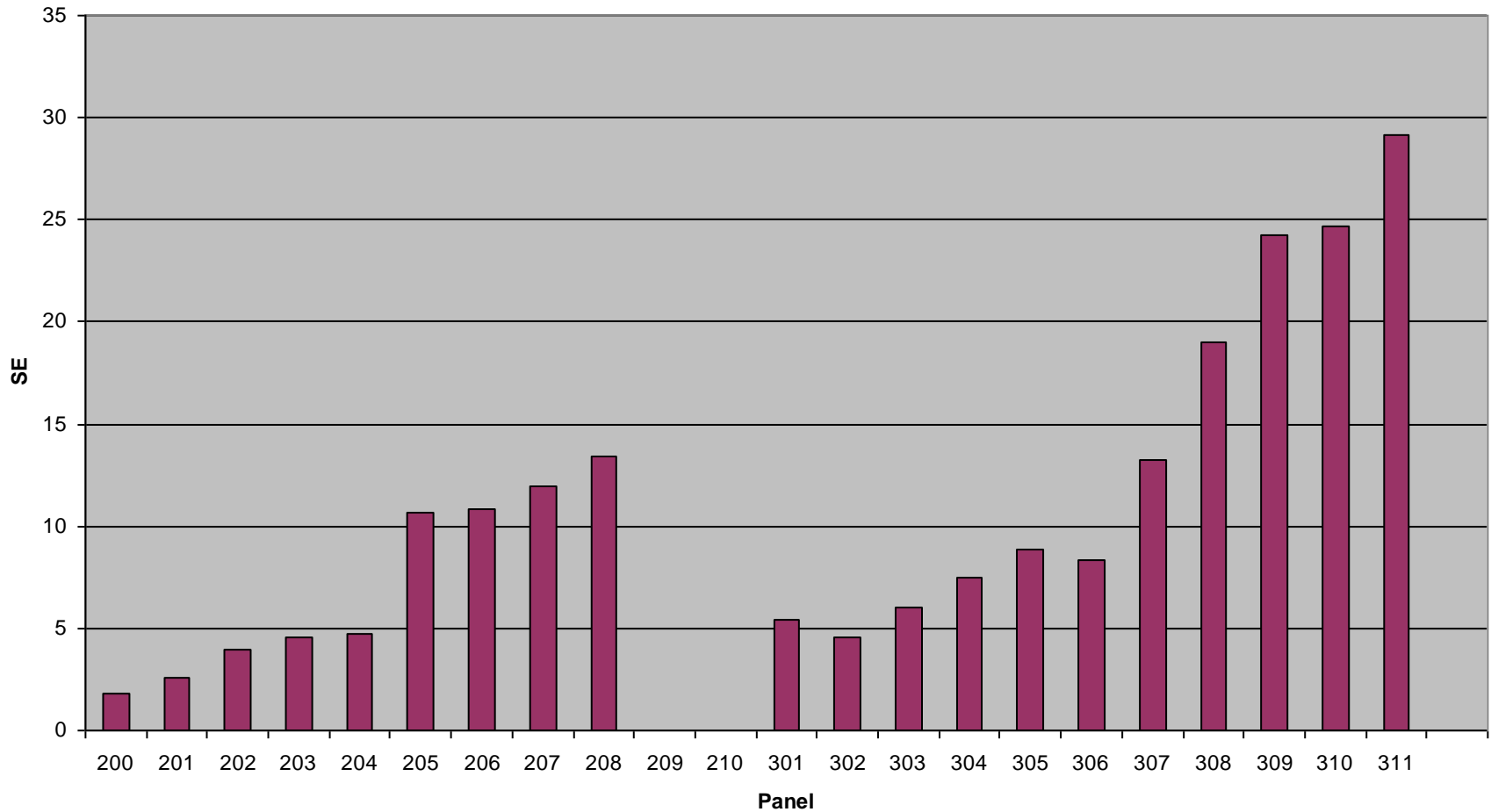


# Goaf Drainage Systems - Central



# Central – Panel Avg. Specific Emission

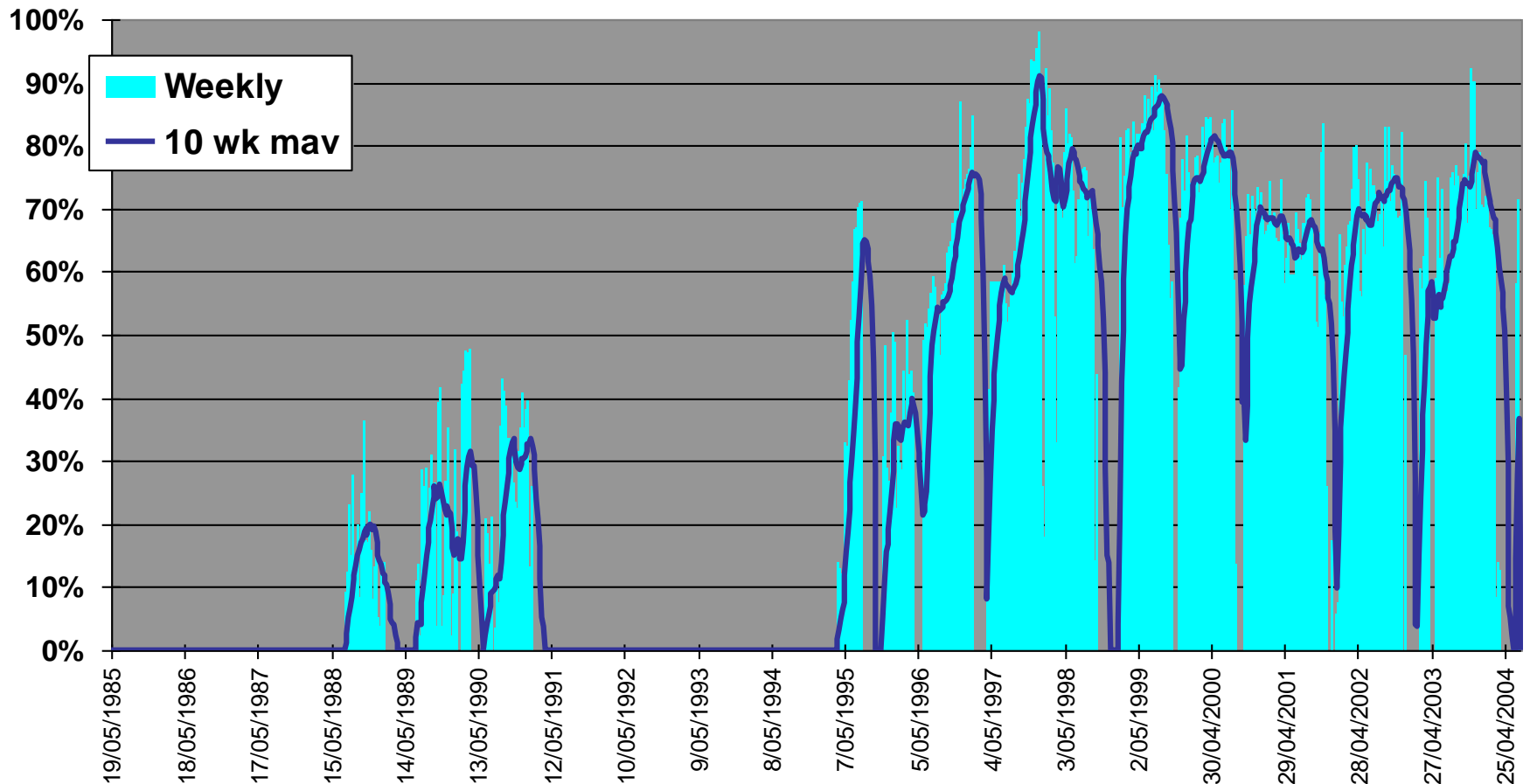
Total SE values for Central Longwall Panels





# Central - Goaf Drainage Efficiency

**Goaf Drainage Efficiency**  
(Goaf drainage gas/Total Longwall Gas)

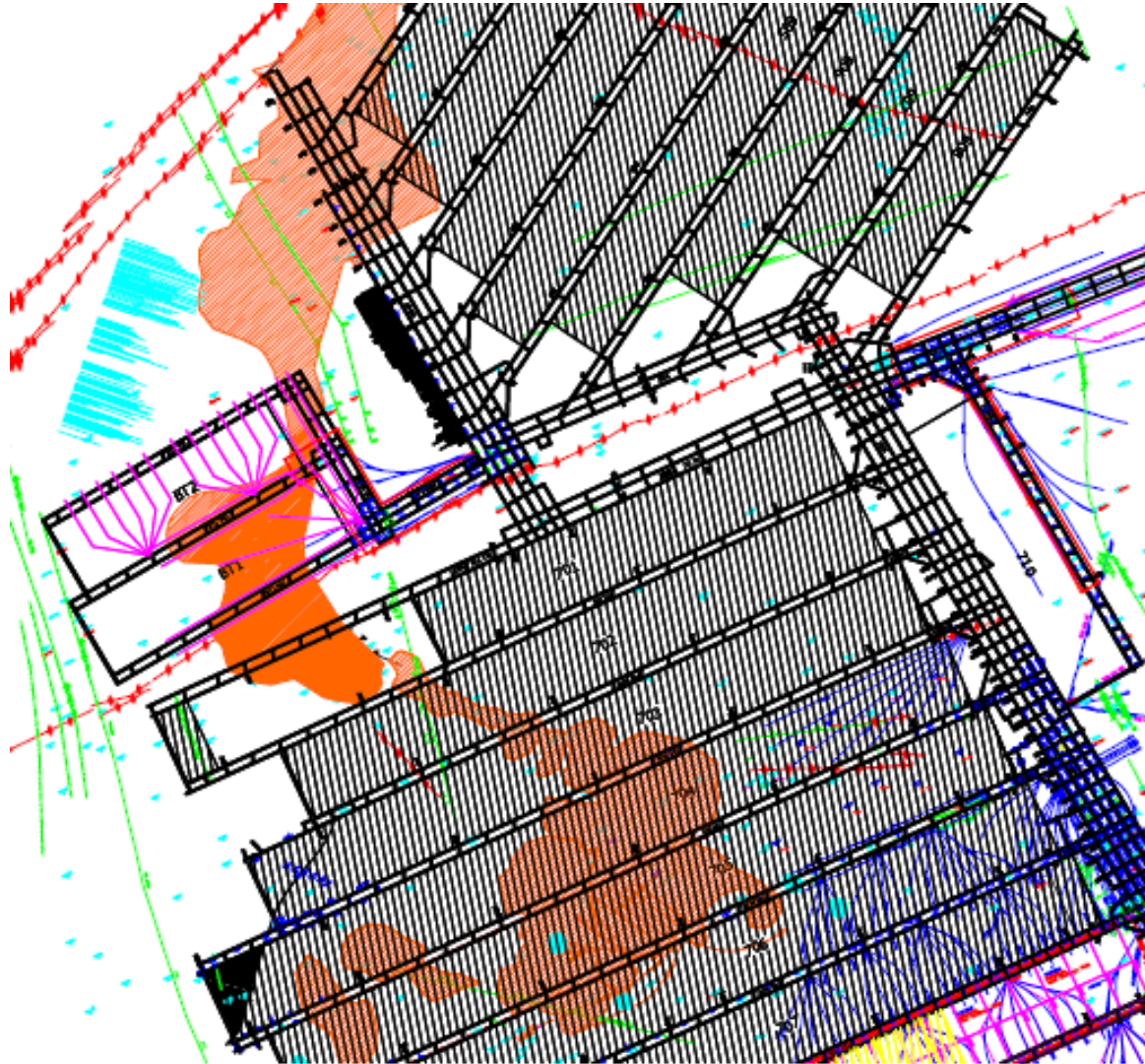


# Outburst site in gate road heading



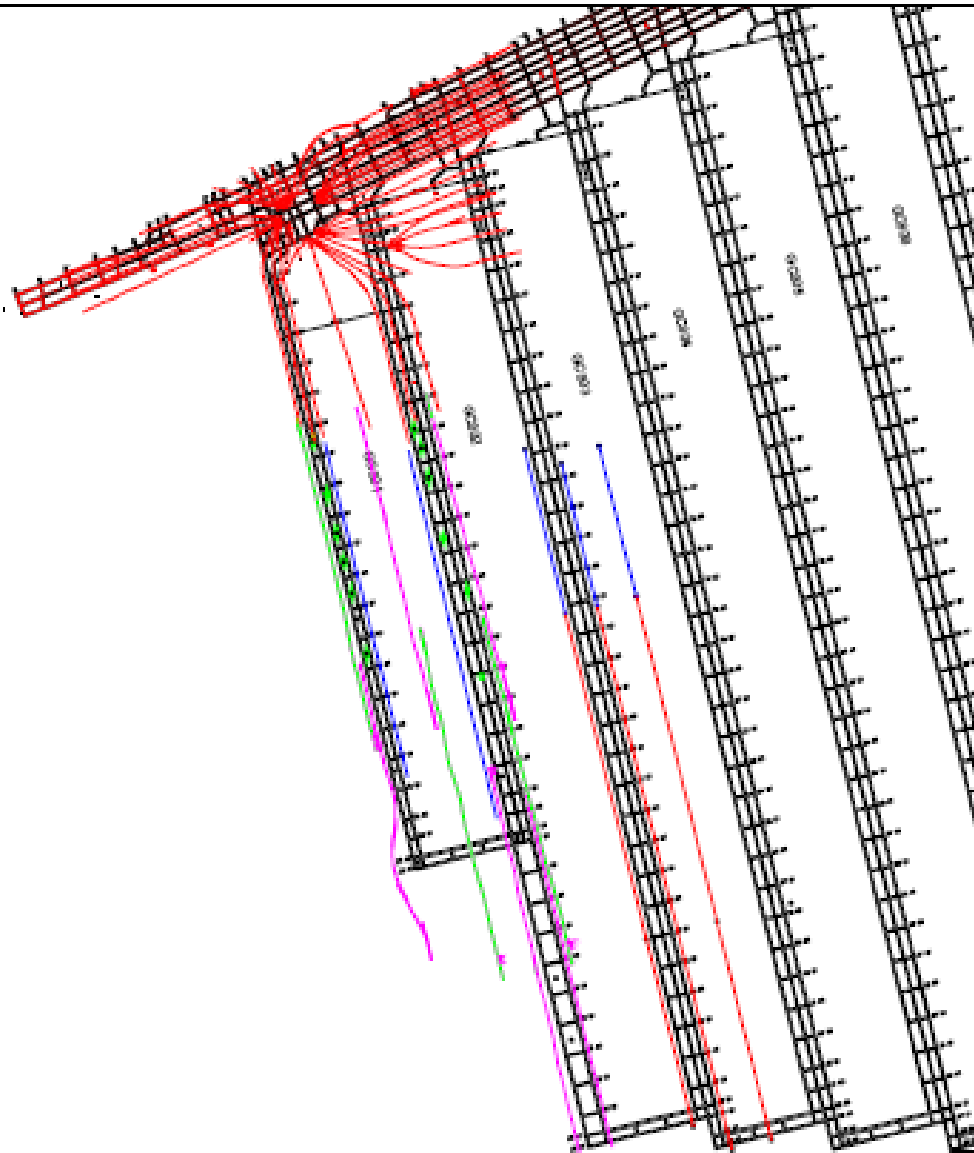
80 tonnes, 1500m<sup>3</sup> CH<sub>4</sub>

# Southern Gas Drainage

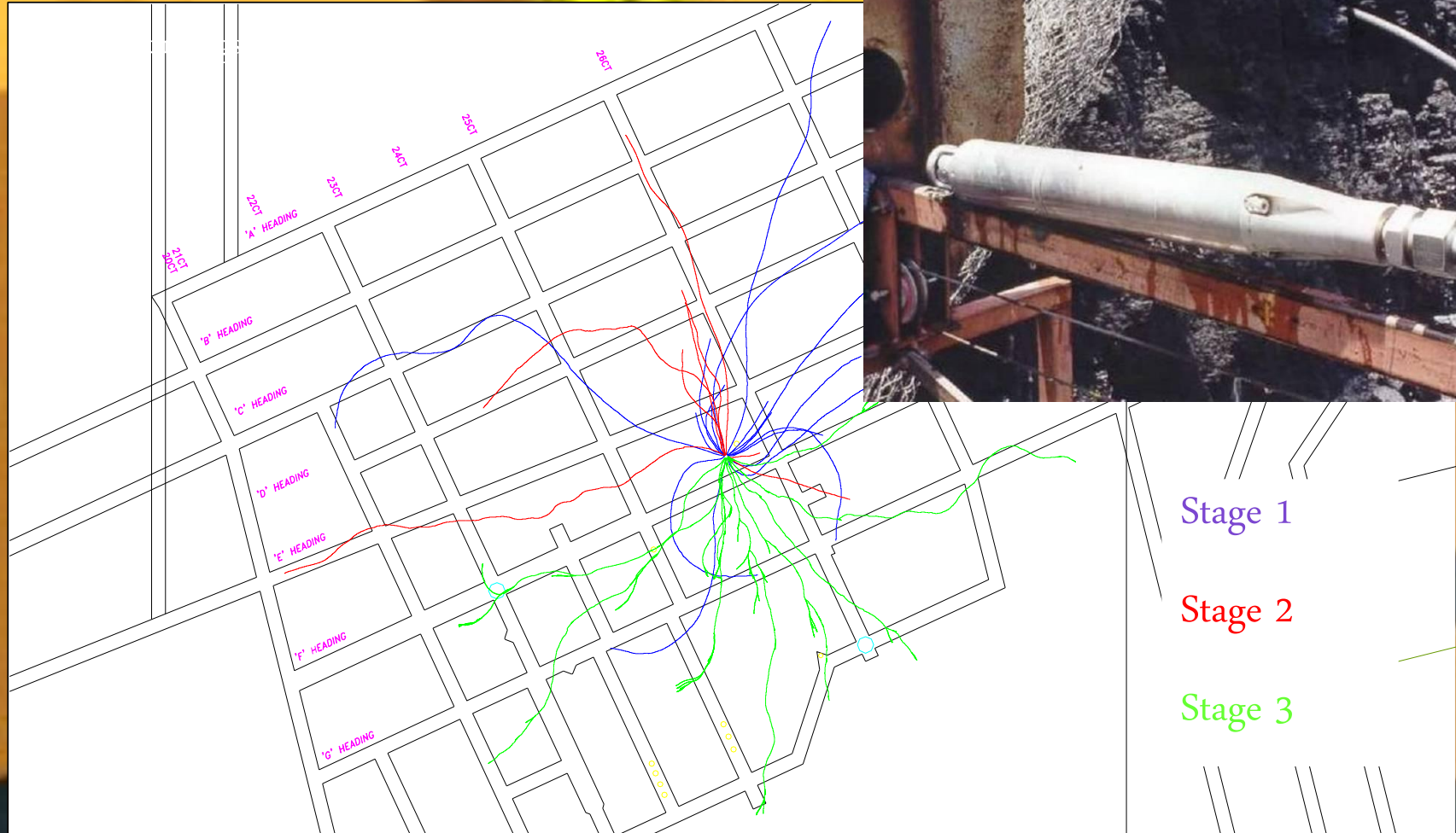


# Grasstree Gas Drainage

---



# GT#2 TRD Surface Pre-drainage



# TRD Holes intersected in heading



# GC - Gas Utilisation

- Goaf gas flared in past
- Electricity generation planned for 2006
  - ❑ Energy Developments Limited (EDL)
  - ❑ 32MW (16 units), start-up mid 2006
  - ❑ consume 2.5 – 3 PJ/yr
  - ❑ sourced from Grasstree (plus Central goaf?)
  - ❑ abates 1.1 Mt/yr of CO<sub>2</sub> equiv  
(= 1.6 mill trees or 250,000 cars)
  - ❑ 66kV exported to National Grid
  - ❑ revenue from electricity, NGACs, GECs, GGAP
- Gas to liquids opportunity ?

