# Water Management Update and Report – Hunter Gas Project

BCCC Meeting # 23

**Presented by:**

29 November 2010

Mt Broke Wines

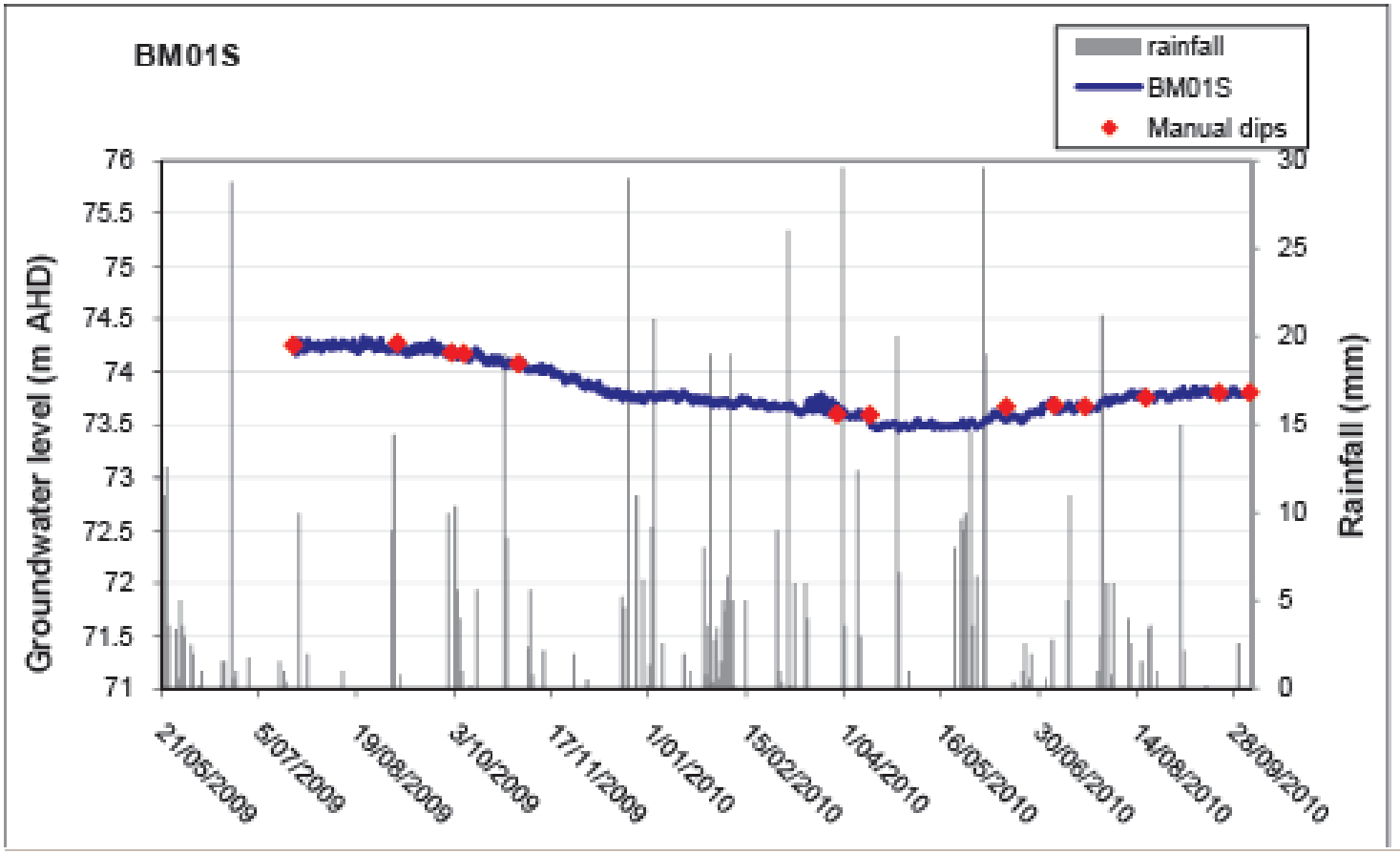
# Groundwater update since September Meeting

## Broke - HB01 and HB02 Flow testing program

- Pumped volumes as at 8 October– HB01 0.20 ML and HB02 0.34 ML – (combined volume 0.54 ML) – rate reduced to ~600 L/d (rates less than 0.01 litres per second)
- Water level monitoring program (seasonal changes in WLs continue):
  - No WL declines due to flow testing at BM01 & BM03 & Xstrata sites
- Water quality monitoring program:
  - AGL monitoring HB01 and HB02 water quality weekly
    - Trend to fresher water migrating to each well
  - Inline WQ monitoring was a reasonable check of trends
    - HB01 and HB02 showing slight salinity oscillations since July
    - Trend partially due to small water volumes and pipe not full
- $C^{14}$ isotope result for HB01 is >50,000 years BP so confirms no connectivity with shallower aquifers

# Groundwater update since September Meeting

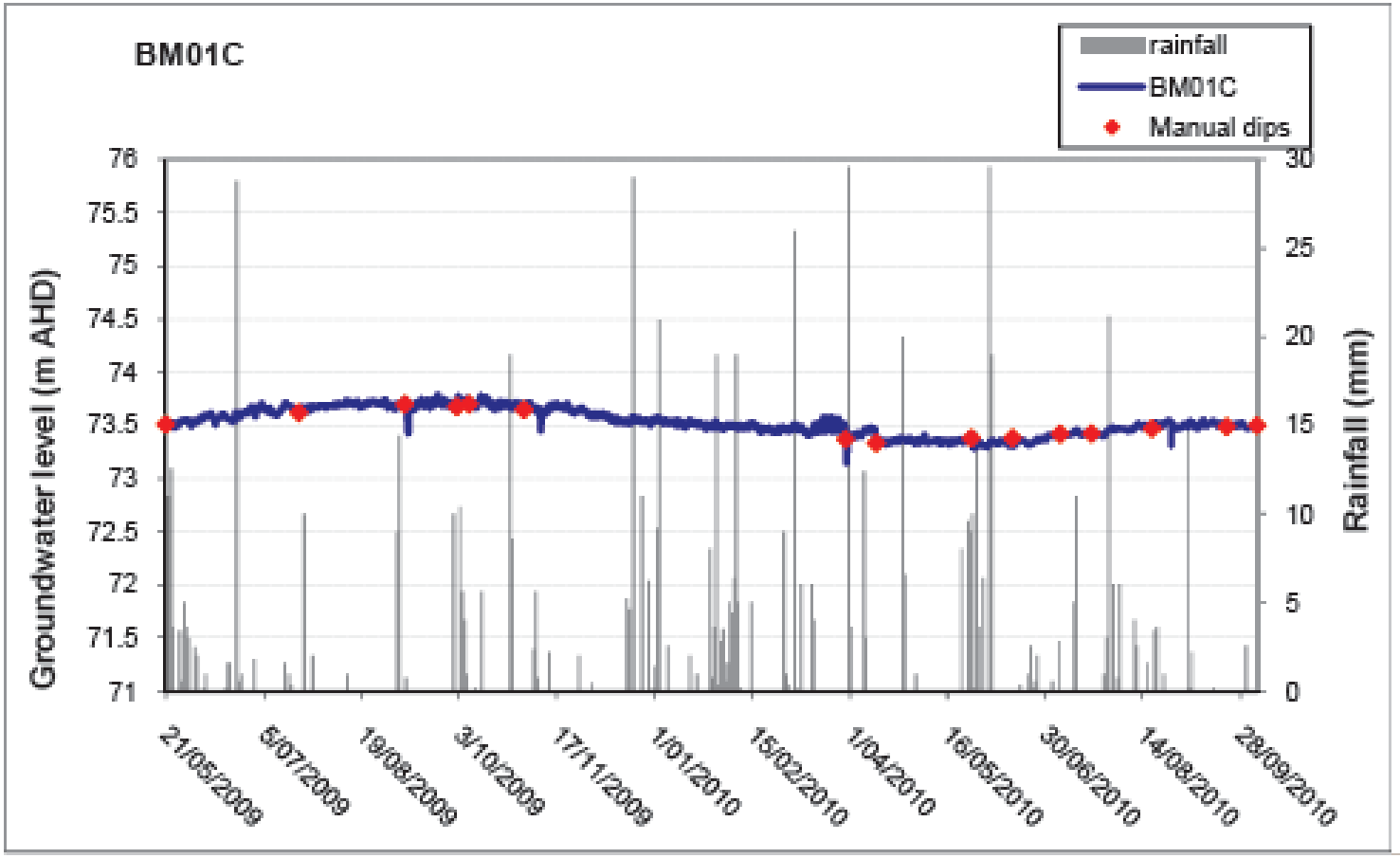
## Broke - HB01 and HB02 Flow testing program




**Shallowest alluvium at BM01 site ~6m deep**

# Groundwater update since September Meeting

## Broke - HB01 and HB02 Flow testing program

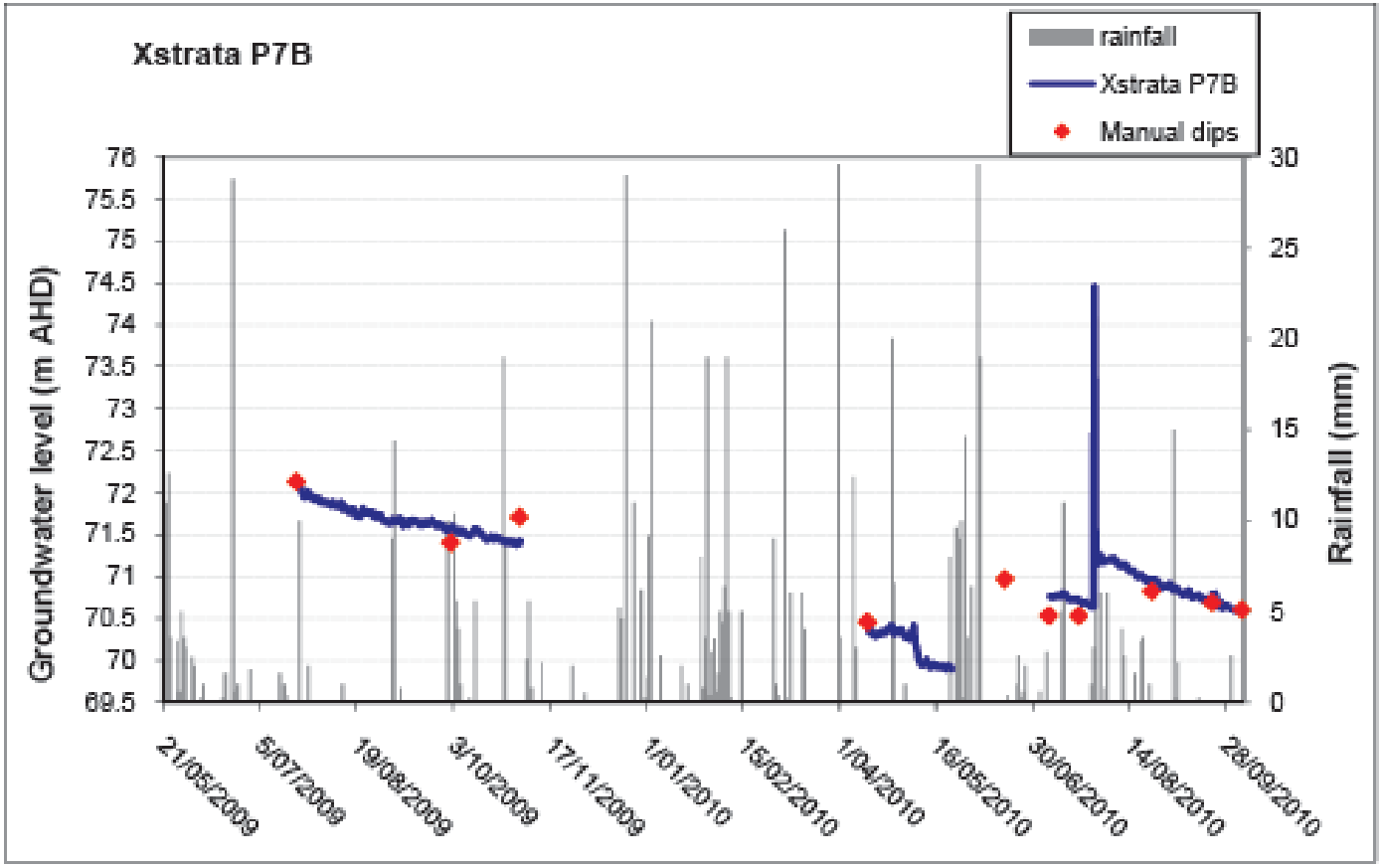



**Wybrow Coal Seam at BM01 site ~220m deep**

These are examples of the water level hydrographs from nearby monitoring bores – others available

# Groundwater update since September Meeting

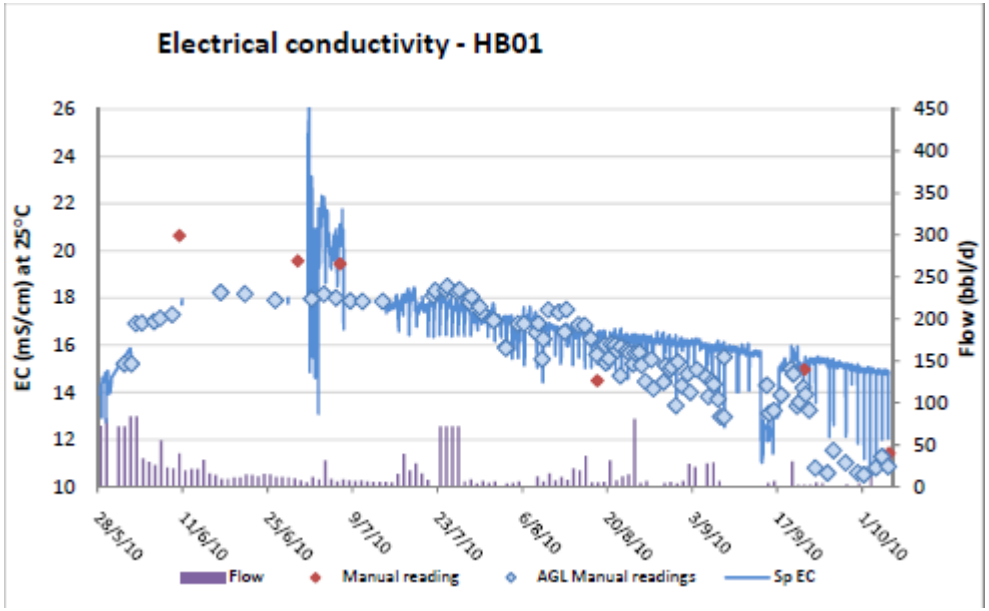
## Broke - HB01 and HB02 Flow testing program



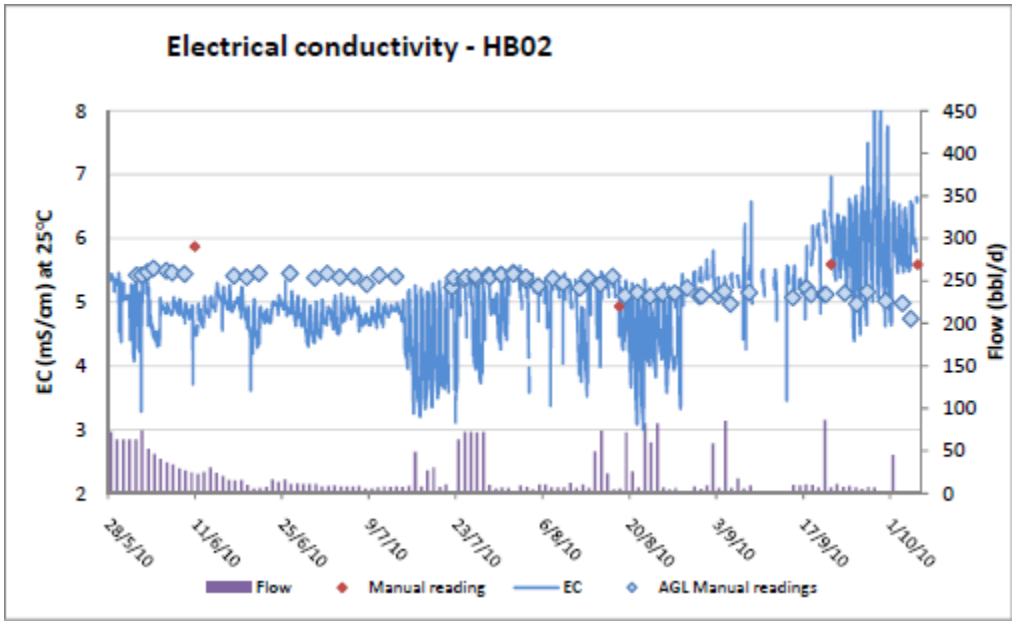

**Wybrow Coal Seam at P7B site**

# Groundwater update since September Meeting

## Broke - HB01 and HB02 Flow testing program




**In-line quality monitoring of EC at HB01 and HB02**




Note that for both graphs the EC units are in mS/cm – to convert to normal µS/cm units multiple by 1000

# Water update since September Meeting

## Dam construction program – Spring Mountain

- Maximum 50 ML capacity – two compartments
- Each compartment is ~ 90 m long x 94 m wide x 4.9 m deep
- At full supply level there will be 4.1 m depth of water
- Overall footprint is 200 m x 100 m
- Designed to segregate then mix groundwater from (alluvial) irrigation wells with PID water
- Likely to be constructed early-mid 2011
- Blending CSG water and irrigating is being considered on a trial basis BUT is not part of the current development
- Additional approvals are required to blend CSG water and irrigate