

## CTD data processing notes – AGU 20, July 2016 (SEAmester / ASCA Cruise)

CTD data processed by: Tamaryn Morris

Date: 30 August 2016, reprocess 22 September 2016

SBE Data Processing software version: 7.23.2

### CTD variables processed:

- Time seconds
- Scan Number
- Pressure db
- Depth saltwater (m)
- Temperature 1 ITS-90 (°C)
- Temperature 2 ITS-90 (°C)
- Conductivity 1 S/m
- Conductivity 2 S/m
- Salinity 1 \*note: chosen here to use for checking data,
- Salinity 2 \* use derived salinity for plots
- Dissolved Oxygen ml l<sup>-1</sup>
- Fluorometer ECO-AFL
- Transmissometer 1 Wet-Labs C-Star (%)
- Transmissometer 2 Wet-Labs C-Star (%)
- Turbidity ECO-BB Wet-Labs
- Turbidity ECO-NTU
- Altimeter
- PAR

### CTD derived variables (first step):

- Potential temperature 1 ITS-90 (°C)
- Potential temperature 2 ITS-90 (°C)
- Density 1 Sigma-theta (kg m<sup>-3</sup>)
- Density 2 Sigma-theta (kg m<sup>-3</sup>)
- Specific volume anomaly
- Sound velocity 1 Chen-Millero (m s<sup>-1</sup>)
- Sound velocity 2 Chen-Millero (m s<sup>-1</sup>)
- Oxygen saturation ml l<sup>-1</sup>

### CTD derived variables (second step):

- Salinity 1 \*Use for data plotting
- Salinity 2 \*Use for data plotting

CTD processing steps and notes:

Please refer to CTD data processing steps designed by Cape Town team and notes for further information on individual steps taken.

- datchv (kept in ASCII format) – removed surface soak individually based on seasave plotting
- bottlesum (using first salinity values before data processing steps)
- wildedit
- celltm
- filter
- loopedit
- first derive (as per listed above)
- bin average (1 m pressure bins)
- second derive (as per listed above)
- split (up and down casts)
- ASCII out (down cast only)

Note: No alignctd step under taken for the data