

1307NH CTD Processing Summary (/cruises/2013-cruises/calcofi-1307nh/526-1307-ctd-processing-summary.html)

Parent Category: 2013 Cruises (/cruises/2013-cruises.html)
 Category: CalCOFI 1307NH (/cruises/2013-cruises/calcofi-1307nh.html)
 Last Updated: 10 March 2017

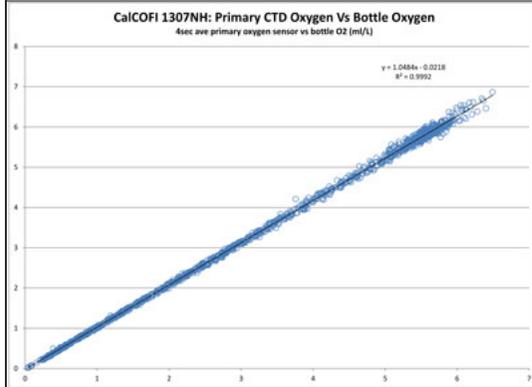
CTD Processing Summary CalCOFI 1307NH CTD Data Final

Download 1307NH CTD raw cast files zipped (http://cappuccino.ucsd.edu/downloads/2013/20-1307NH_CTDcast.zip)
 Download 1307NH FinalQC CTD + bottle data (http://cappuccino.ucsd.edu/downloads/2013/20-1307NH_CTDFinalQC.zip)

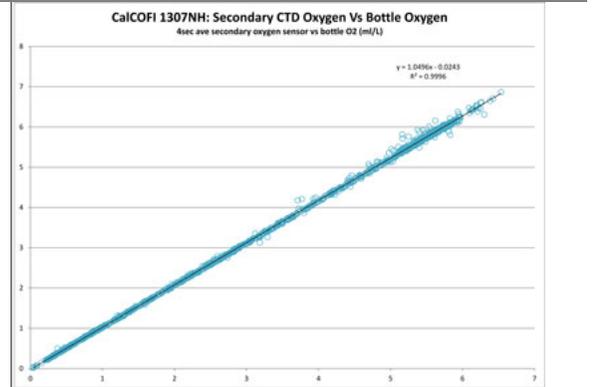
General CTD Notes - data acquisition notes, logistics, processing - see below

CTD sensor corrections derived by comparing 4 secs of CTD sensor data (prior to bottle closure) to bottle samples

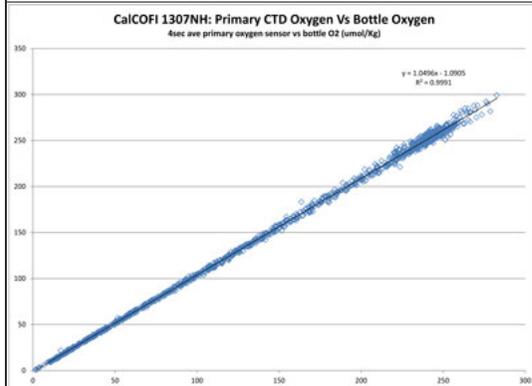
Dual T, S, & O2	Primary Sensor	Secondary Sensor
Salinity offset (http://www.calcofi.org/downloads/cruise_data/2013/1307/1307_Final_Regressions/1307NH_Salt_Offsets.pdf) (bottle - CTD salinity; > 350m only; Seabird SBE4)	-0.00214	-0.00226
Oxygen ml/L (dual Seabird SBE43)	y = 1.0484x - 0.0219 R ² = 0.9992	y = 1.0496x - 0.0243 R ² = 0.9994
Oxygen umoles/Kg (dual Seabird SBE43)	y = 1.0496x - 1.0905 R ² = 0.9991	y = 1.0508x - 1.1991 R ² = 0.9995
Single sensors	Linear	Polynomial
Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2)	y = 28.979x - 9.0078 R ² = 0.9853	
Fluorometer - linear & polynomial regressions		y = 1.7338x ² + 3.5758x - 0.0172 R ² = 0.698



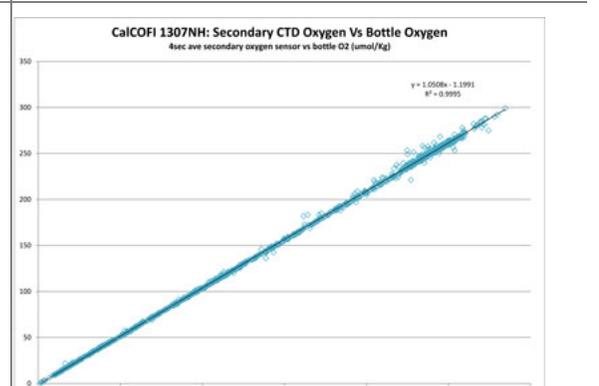
(http://www.calcofi.org/downloads/cruise_data/2013/1307/1307_Final_Regressions/1307NH_Ox1MLVsOxB.pdf)



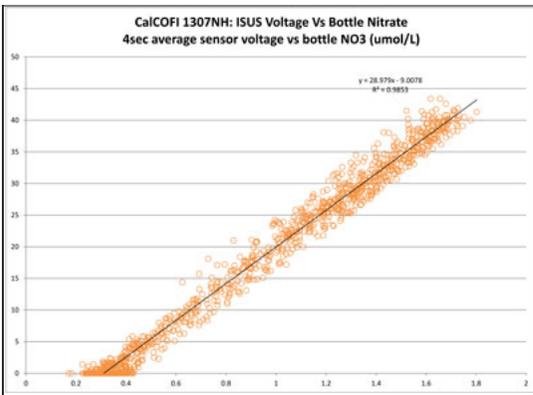
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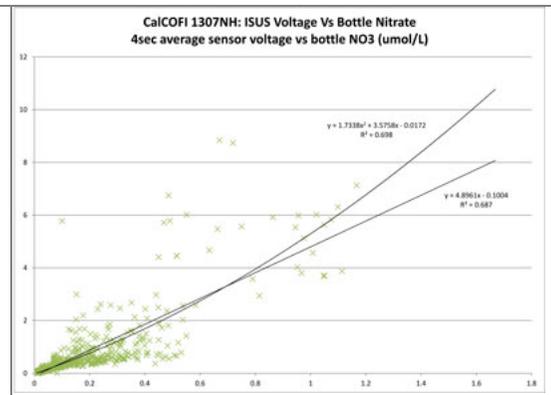
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(http://www.calcofi.org/downloads/cruise_data/2013/1307/1307_Final_Regressions/1307NH_Ox2UMVsOxB.jpg)



(http://www.calcofi.org/downloads/cruise_data/2013/1307/1307_Final_Regressions/1307NH_ISUSVsNO3.pdf)



(http://www.calcofi.org/downloads/cruise_data/2013/1307/1307_Final)

General notes: This is the final CTD Processing Summary from 1307NH cruise

CalCOFI 1307NH: 74 stations occupied, 66 standard & 8 SCCOOS (80.0 50.5 dropped due to weather); station order was impacted by Naval Operations. CTD configuration was standard: Seabird 911+ with dual T, C, O2, & pumps; Wetlabs C-Star 25cm transmissometer; Biospherical QSP200L PAR; Datasonics/Benthos Altimeter; NEW ADDITION replacing our Seapoint Fluorometer. Sensitivity setting was 0-50mg/m³; Seabird pH; Satlantic ISUS v2 & battery. Please refer to the xmlcon files or cruise prospectus for additional info. This cruise had many non-confirmation problems - bottles being closed but no confirmation returning. It was later discovered faulty conductive wire(s) were to blame after the questionable wire conductor and shield ground used.

- Cast 001 93.3 26.7: CTD started down but archiving was not initiated so it was brought back to surface, data acquisition started then lowered
- Cast 002 93.4 26.4: No trip at #3, tripped 2 at 5m. Omit #4, re-numbered #5 to surface bottle.
- Cast 007 93 40- Bottle 11 didn't confirm, fired again and the next bottle to be fired advanced by 2 numbers. 2 bottles were tripped at 100m.
- Cast 008 93.3 45.0- 270m #5, non confirm_ next bottle jumped from 5 to 7.
- Cast 009 93.3 50.0: #12 85m no confirmation - updated to #14 next depth
- Cast 012 93 70- Really high NO3, Non confirm 1 and 2, finally caught up at 3
- Cast 013 93.3 80.0- Non confirms at #'s 6, 11, 15, 16,17, 18 went from 16-18should be 19? Think #16 was a non closure 3 bottles still open at surface, sent back down to trip 48 m for prodo v
- Cast 014 93 90- 2 non confirms at 380m non confirm at 270m and non confirms at 50m and 40m, Duplicates at 380 m and no 40m bottle
- Cast 021 - 3500m deep cast "Scan length error: expected = 88, actual = 15" message seen during the upcast on-screen at 657m. **No CTD sensor data collected between 1758m-1267m d restarted at 1266m to surface.** Another glitch: oxygen upcast profile from ~1800-1300m looks wrong
- Cast 023 90.0 70.0: Eventlog GPS wrong, computer serving GPS frozen
- Cast 032 86.7 110.0- 4 bottles tripped at 29 m extras are 19 20 21 22 brought on deck reset 19-22; put back into water after resetting
- Cast 039 83.3 55.0: bottle #21 mistripped, no closure
- Cast 044 81.9 46.9- Popped 2 bottles at 20m, pulled CTD on deck emptied bottle 23 and sent back in to sample 10m depth. No ph data.
- Cast 046 80 55- 15 m DIC Sample.
- Cast 047 80 60-No ISUS Data.
- Cast 050 80 90- Transmissometer spikey near terminal depth at 400-515m.
- Cast 054 77 80- Inversion at 50m
- Cast 062 87.45: ISUS sent in unplugged, returned to deck immediately but did not work
- Cast 063 87.40: ISUS still not working even though the battery was replaced; went from 765 to 700 then back to 750 on upcast to get 15m-off-bottom bottle
- Cast 064 87.35: still no ISUS data; down-welled O2 feature at 250m
- Cast 065 85.4 35.8: No ISUS data
- Cast 066 87.33: No ISUS data
- Cast 067 86.8 32.5: ISUS data finally, main cable questionable
- Cast 062-69: No reliable ISUS data.
- Cast 073 90 37- Bottle 20 did not close, sent CTD back down and used bottle 24 to sample 20m

Note: this page was updated 16Oct2015; CTD data was reprocessed using new data code format and final regressions were regenerated. 2015 reprocessing added data-quality code columns an ("9") or questionable data ("8"). Data values should not have changed from the previously published final CTD data. But the column number on updated CTD.csvs has changed from 65 to 82. R webpage: 65-column index (<http://calcofi.org/data/data-formats/607-ctd-csv-format-65cols.html>); 82-column index (<http://calcofi.org/data/data-formats/577-ctd-csv-format-qc.html>)

