

Cruise: SKO0410
Ship: M/V Skogafoss
Dates: June 26 - July 2, 2004
Chief Scientist: not applicable
Equipment: Surface samples collected.
Total number of stations: VOS Underway Cruise

Sample Collection

The discrete samples were collected by Denis Pierrot at a tap on the side of the TSG enclosure in the engine room. The underway pCO₂ instrument and the TSG were supplied with water from the flow used for engine cooling. The water flowing through the TSG is believed to be 0.2 degrees C warmer than in-situ SST. The date and time listed in the data file are UTC when each sample bottle was collected.

DIC:

13 locations, 20 samples each 500-ml, 6 sets of duplicate samples
Sample_ID#: SKO1 –SKO20
PI: Dr. Rik Wanninkhof
Analyzed by: Esa Peltola

TAlk:

The samples analyzed for DIC were later analyzed for TAlk.
PI: Dr. Frank Millero
Analyzed by: Mareva Chanson

Salinity_1:

8 locations, 24 samples each 180-ml
Sample_ID#: 745 - 768
PI: Dr. Hedinn Valdimarsson
Collected by: Denis Pierrot
Analyzed by: Magnus Danielsen, Icelandic Marine Research Institute

Sample Analysis

DIC:

Analysis date: November 9-10, 2004
Coulometer used: AOML1
Blank range: 12.0-12.0 counts/min
CRM # used and assigned value (include both DIC and salinity): Batch 59, c:2007.1 umol/kg, S:33.316
CRM value measured: AOML 1: offset 1.0 umol/kg (2006.1 umol/kg)
Average run time, minimum run time, maximum run time: 10 min, 8 min, 11 min
Reproducibility: (# samples and average difference): 6 sets of duplicate samples, average

difference 0.7 umol/kg

CRM, salinity and HgCl₂ correction applied: yes

Comments

A GPS transducer was connected to the underway pCO₂ instrument as well as a thermosalinograph (TSG). The GPS and the TSG, a Seabird SBE-21, were maintained by the Ship of Opportunity Program at AOML (<http://www.aoml.noaa.gov/phod/tsg/soop/index.php>).

The latitude, longitude, temperature and salinity reported with the DIC and TAlk measurements were taken from the raw TSG data file. The merging of the discrete measurements with the TSG data was done on the basis of date and time. The TSG values are provided for reference; no post-cruise assurance of accuracy has been done to this data. The results of the analyses of discrete salinity bottles appear on separate lines.

The Sample_ID is the sample bottle number for the discrete samples.