

Radionuclide data from bottle samples from RVIB Nathaniel B. Palmer NBP-98-2 cruise in the Southern Ocean in 1998 (U.S. JGOFS AESOPS project)

Website: <https://www.bco-dmo.org/dataset/2764>

Version: September 24, 2002

Version Date: 2002-09-24

Project

» [U.S. JGOFS Antarctic Environment and Southern Ocean Process Study](#) (AESOPS)

Program

» [U.S. Joint Global Ocean Flux Study](#) (U.S. JGOFS)

Contributors	Affiliation	Role
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Table of Contents

- [Dataset Description](#)
- [Data Files](#)
- [Parameters](#)
- [Instruments](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)

Dataset Description

Radionuclide data from bottle samples

[[table of contents](#) | [back to top](#)]

Data Files

File
rad_bottle.csv (Comma Separated Values (.csv), 6.09 KB) MD5:0d376123c9298e71cf6e76c23c9f5d00 Primary data file for dataset ID 2764

[[table of contents](#) | [back to top](#)]

Parameters

Parameter	Description	Units
event	event number from event log	
sta	station number from event log	
cast	cast number, CTD/bottle cast	
lat	latitude, minus means South	degrees
lon	longitude, minus means West	degrees
mooring	mooring identification	
bot	composite sample drawn from two or more bottles	
depth_n	depth, nominal; average depth of bottles in composite sample	meters
temp	temperature, average temperature of bottles in composite sample	degrees C
sal	salinity, average salinity of bottles in composite sample	PSU
Th232_tot	thorium-232 total, dissolved and particulate	dpm/1000 liters
Th232_err	thorium-232 error, plus/minus two sigma	dpm/1000 liters
Th230_tot	thorium-230 total, dissolved and particulate	dpm/1000 liters
Th230_err	thorium-230 error, plus/minus two sigma	dpm/1000 liters
Pa231_tot	protactinium-231 total, dissolved and particulate	dpm/1000 liters
Pa231_err	protactinium-231 error, plus/minus two sigma	dpm/1000 liters
Be10_tot	beryllium-10 total, dissolved and particulate	atoms/1000 liters
Be10_err	beryllium-10 error, plus/minus one sigma	atoms/1000 liters

[[table of contents](#) | [back to top](#)]

Instruments

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
Dataset-specific Description	CTD clean rosette (Niskin) bottles were used to collect water samples.
Generic Instrument Description	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24, or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

[[table of contents](#) | [back to top](#)]

Deployments

NBP-98-2

Website	https://www.bco-dmo.org/deployment/57723
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/nbp-bp_mr.html
Start Date	1998-02-25
End Date	1998-04-03
Description	Benthic Process and Moorings Recovery Methods & Sampling PI: Bob Anderson of: Lamont-Doherty Earth Observatory dataset: Radionuclides from water bottle samples dates: February 26, 1998 to March 28, 1998 location: N: -53.0303 S: -76.5017 W: 176.9717 E: -169.5078 project/cruise: AESOPS/NBP98-2, Benthic Processes cruise ship: R/V Nathaniel B Palmer Methodology and Notes

[[table of contents](#) | [back to top](#)]

Project Information

U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

Website: <http://usjgofs.whoi.edu/research/aesops.html>

Coverage: Southern Ocean, Ross Sea

The U.S. Southern Ocean JGOFS program, called Antarctic Environment and Southern Ocean Process Study (AESOPS), began in August 1996 and continued through March 1998. The U.S. JGOFS AESOPS program focused on two regions in the Southern Ocean: an east/west section of the Ross-Sea continental shelf along 76.5°S, and a second north/south section of the Southern Ocean spanning the Antarctic Circumpolar Current (ACC) at ~170°W (identified as the Polar Front). The science program, coordinated by Antarctic Support Associates (ASA), comprised eleven cruises using the R.V.I.B Nathaniel B. Palmer and R/V Roger Revelle as observational platforms and for deployment and recovery of instrumented moorings and sediment-trap arrays. The Ross-Sea region was occupied on six occasions and the Polar Front five times. Mapping data were obtained from SeaSoar, ADCP, and bathymetric systems. Satellite coverage was provided by the NASA SeaWiFS and the NOAA/NASA Pathfinder programs.

[[table of contents](#) | [back to top](#)]

Program Information

U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Website: <http://usjgofs.whoi.edu/>

Coverage: Global

The United States Joint Global Ocean Flux Study was a national component of international JGOFS and an integral part of global climate change research.

The U.S. launched the Joint Global Ocean Flux Study (JGOFS) in the late 1980s to study the ocean carbon cycle. An ambitious goal was set to understand the controls on the concentrations and fluxes of carbon and associated nutrients in the ocean. A new field of ocean biogeochemistry emerged with an emphasis on quality measurements of carbon system parameters and interdisciplinary field studies of the biological, chemical and

physical process which control the ocean carbon cycle. As we studied ocean biogeochemistry, we learned that our simple views of carbon uptake and transport were severely limited, and a new "wave" of ocean science was born. U.S. JGOFS has been supported primarily by the U.S. National Science Foundation in collaboration with the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, the Department of Energy and the Office of Naval Research. U.S. JGOFS, ended in 2005 with the conclusion of the Synthesis and Modeling Project (SMP).

[[table of contents](#) | [back to top](#)]