

Nitrate nutrient analyser data series at the southern North Sea site

Principal Investigator

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Data Originator

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Two nitrate NAS nutrient analysers were deployed on the surface (Rig G) and near-bed (Rig H) environmental moorings respectively, during the southern North Sea experiment from March-April to May 1999. A silicate NAS nutrient analyser from the Southampton Oceanographic Centre was also deployed on Rig H and has been documented separately ([sns snas](#)).

This report contains the qualifying documentation and header information associated with the following data series extracted from the BODC database:

Series Reference	Data Type	Latitude deg min	Longitude deg min	Start Date yyyy/mm/dd	Sea Floor Depth m	Sensor Depth m
541926	PC	52 17.9 N	004 18.0 E	1999/04/02	19.0	1.0
541938	PC	52 18.0 N	004 18.0 E	1999/03/30	18.0	13.0

where Data Type PC = Hydrography time series at depth

Parameter	Unit	Parameter code	Comments	
			541926	541938
Nitrate + nitrite	$\mu\text{mol l}^{-1}$	NTRZNS01	short time-series	none

The following single character qualifying flags may be associated with one or more individual parameters within a data cycle:

Flag	Description
	Unqualified
<	Below detection limit
>	In excess of quoted value
B	Beginning of CTD Down/Up Cast
D	Thermometric depth
E	End of CTD Down/Up Cast
K	Uncertain/suspect value
L	Improbable value - originator's quality control
M	Improbable value - BODC quality control
N	Null value
O	Improbable value - user quality control
P	Trace/calm
Q	Indeterminate
R	Replacement value
S	Estimated value
T	Interpolated value
U	Uncalibrated
W	Control value
X	Excessive difference

INFORMATION FOR BODC SERIES REF. NO. 541926

Time Series Inventory Number : 10502

Start Time : 02 Apr 1999 2101 GMT

Latitude : 52deg 17.9min N

End Time : 26 Apr 1999 1301 GMT

Longitude : 004deg 18.0min E

Nominal Cycle Interval : 7200.0 secs

Sensor Depth : 1.00m

Sea Floor Depth : 19.00m

Positional Uncertainty : 0.1 to 0.5 n.miles

Sea Floor Datum : Instantaneous

Sensor Depth Datum : Sea floor reference

Disposition of Sensors : Sensor fixed, measurements made at fixed depths

Project : Provess

Data Category : Hydrography time series at depth

Instrument Type : In-situ nutrient analyser

Instrument Mounting : Subsurface mooring - surface buoyancy

Originator Laboratory : Dunstaffnage Marine Lab., Oban, UK

Originator's Identifier : nas1714_823

Additional information stored with the data:

Data processing carried out at the Dunstaffnage Marine Laboratory, Oban, UK: instrument voltages were corrected for blank readings and converted to absorption according to the formula:

$$[\text{Absorbance}] = \log_{10}([\text{blank voltage}]/[\text{sample voltage}])$$

Absorption readings were then converted to concentrations by calibration against calibration samples from an on-board standard taken every 6 samples during the deployment according to the formula:

$$[\text{Concentration, } \mu\text{M}] = [\text{sample absorbance}]/([\text{standard absorbance}] * [\text{standard concentration, } \mu\text{M}])$$

The on-board standard concentration was 10 μM of nitrite.

The following additional documents apply to this series:

[63428](#); General Data Screening carried out by BODC

[79983](#); NAS-2E in situ Nutrient Analyser

Data Activity Document: [78072](#)

Project Document : [77554](#)

PARAMETERS

Parameter : AADYAA01 (TIME)
Description : Day number
Method : Computation
Units : Days (1760/01/01 = day 0)

Parameter : AAFDZZ01 (TIME)
Description : Day fraction (GMT)
Method : Computation
Units : Days

Parameters AADY/AAFD are usually supplied as date and time (GMT)

Parameter : NTRZNS01 (CNPS)
Description : Nitrate + nitrite (in-situ)
Method : NAS in-situ analyser
Units : Micromoles/litre