FICHE META\_INFORMATION\_PARAMETRES

(à remplir par le responsable du paramètre)

### Nom du DATASET / Data SET NAME

*Data set Name (list of the measured parameters):*

Ammonia (NH4)

### PROJET-ETUDE / *PROJECT TITLE*

*Campaign NAME*: AMOP *LEG: 1*

*Date* *begin: January 26th, 2014*

*Date end: February 22nd, 2014*

*Chief Scientist*: Aurélien PAULMIER, Boris DEWITTE, Véronique GARCON

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*Chief Mission*: Christophe MAES

*Address:*  Laboratoire d'Océanographie Physique et Spatiale (LOPS)

IFREMER -Centre de Brest

29280 PLOUZANE

### OPERATION *(if Relevant)*

*Sampling method:* Niskin bottles-rosette

*Station number-Cast number:*

*Operation code:*

### RESPONSABLE SCIENTIFIQUE du paramètre / *PI of the parameter*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nom / *name* | adresse /*address* | téléphone / *phone number* | fax /*fax number* | adresse mél /*email address* |
| Mireille Pujo-Pay | LOMIC UMR 7621 avenue du Fontaulé 66650 Banyuls/mer | 04 68 88 73 51 | 04 68 88 73 95 | pujopay@obs-banyuls.fr |

### DATASET contact

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nom / *name* | adresse /*address* | téléphone / *phone number* | fax /*fax number* | adresse mél /*email address* |
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### INFORMATION GEOGRAPHIQUES */ GEOGRAPHIC INFORMATION*

*Predefined site (if relevant):* Oxygen Minimum Zone (OMZ)

*Location:* Off Peru

*LATITUDE:* 7°50’S-14°34’S

*LONGITUDE:* 77°16’W-81°41’W

### DESCRIPTION DES INSTRUMENTS / INSTRUMENTS DESCRIPTION *(if Relevant)*

*Instrument Type:* Fluorimeter

*Manufacturer:* Turner design

*Model:*

*Instrument Features / Calibration:*

### DESCRIPTION DES PARAMETRES */ PARAMETERS DESCRIPTION*

# Ce qui a été collecté, mesuré et comment / *How was the parameter collected and measured (include references for analytical methods)?*

*Sampling: :* Samples were collected from Niskin bottles in two Schott glass bottles. Following rinsing, the bottles were filled with seawater and closed immediately to avoid contamination by air. Back in the inboard laboratory the OPA reagent was added. Samples were incubated for 1 hour in the dark at 40°C or 30 min at 60°C, before fluorescence measurements.

*Analytical procedure : (briefly, could be a short recall to a published reference):*

The analysis is based on the reaction of ammonia with orthophtaldialdehyde and sulphite *(Robert M. Holmes, Alain Aminot, Roger Kérouel, Bethanie A. Hooker, and Bruce J. Peterson (1999)* *Can. J. Fish. Aquat. Sci. 56: 1801–1808)*

The fluorescence is measured with an excitation of 360nm and an emission of 470nm with turner design fluorometer.

Deep seawater (1000m) is used to prepare the standards. The concentration of the samples is calculated using the slope of the calibration curve. The background fluorescence of natural substances present in the sample is substracted from the sample-reagent fluorescence

*Units:* µmol.L-1(µM) or nmol.L-1(nM)

*Sensor Precision:*

*Precision standard deviation < 1%*

*Detection limit :* *0.004µmol/l*

*Accuracy was determined by measuring certified standard CERTIPUR/Merck. For a concentration of 0.28 µmol/l the accuracy was 2 %*

# Décrire quels types de données sont nécessaires pour vous compléter votre propre jeu de données **avant** envoi à la base de données, et estimer le délai avant la disponibilité de vos données pour la base de données / *Post-cruise data analysis/treatment required, and the time frame for this*

*Estimated Date of Delivery :*

### REFERENCES BIBLIOGRAPHIQUES

Robert M. Holmes, Alain Aminot, Roger Kérouel, Bethanie A. Hooker, and Bruce J. Peterson (1999)

A simple and precise method for measuring ammonium in marine and freshwater ecosystems. Can. J. Fish. Aquat. Sci. 56: 1801–1808

Brad W. Taylor, Christine F. Keep, Robert O. Hall, Jr., Benjamin J. Koch, Lusha M. Tronstad, Alexander S. Flecker and Amber J. Ulseth (2007). Improving the fluorometric ammonium method: matrix effects, background fluorescence, and standard additions. J. N. Am. Benthol. Soc., 26(2):167–177