FICHE META_INFORMATION_PARAMETRES
(à remplir par le responsable du paramètre)

(A renseigner AVANT la mission)

1. PARAMETRES CONCERNES

  28 - Azote inorganique dissous (nitrate + nitrite)
  30 - Ammonium
  33 - Silicates
  85 - Primary production (inorganic carbon assimilation)
147 - Dissolved organic matter (carbon, nitrogen and phosphorus)

2. OPERATION & CAMPAGNE / *OPERATION & CAMPAIN*

Nom de l'opération   PROOF-PECHE
Nom des campagnes   PROPECHE 1 & 2

3. PROJET D'ETUDE / *PROJECT TITLE*

Stocks et flux de matières : estimation des concentrations en éléments minéraux et matières organiques. Quantification des taux d'assimilation du carbone et de l'azote inorganique et des taux de régénération de l'azote.

Pools and flux of matter: estimation of inorganic and organic matter. Quantification of carbon assimilation and nitrogen uptake and regeneration

4. RESPONSABLE SCIENTIFIQUE / *PRINCIPAL INVESTIGATOR*

Nom / *name*	adresse / *address*	téléphone / *phone number*	fax / *fax number*	adresse mél / *email address*
RAIMBAULT	**COM-UMR 6535**	**0491829105**	**0491821991**	**raimbault@com.univ-mrs.fr**

5. BREVE DESCRIPTION DU PROJET */ BRIEF DESCRIPTION OF PROJECT*

(1) Nutrients concentrations and biomass stocks will be used to characterize the trophic level of the ecosystem during time of investigation.

(2) The role of primary producers will be specifically addressed by the dual isotopic $^{15}N/^{13}C$ method to quantify the rates of primary production and the different pathways of inorganic nitrogen

(A compléter APRES la mission)

6. DESCRIPTION DES PARAMETRES / *PARAMETERS DESCRIPTION*

6.1. Ce qui a été mesuré et comment / *What did you measure and how did you do it (include references for analytical methods)?*

Nutrients
LOB-CNRS Marseille

Collection and storage of samples
Water samples were collected at different depth according to the water mass stratification, generally in, above and below the halocline and the maximum of chlorophyll depth by CTD/rosette casts. Water was transferred from the Niskin bottles with a Teflon tube into 100 ml litres polyethylene bottles previously washed with chloride acid 2N and rinsed with MilliQ water before the cruise. 500 µl of mercuric chloride were added to poison the samples which stored at dark until analysis at laboratory.

Analysis
Analysis were performed at the laboratory two days later using an automated colorimetric procedure (Tréguer and LeCorre, 1965).

Ammonium
LOB-CNRS Marseille

Collection and storage of samples
Water samples were collected at different depth according to the water mass stratification, generally in, above and below the halocline and the maximum of chlorophyll depth by CTD/rosette casts. Water was transferred from the Niskin bottles with a Teflon tube into 50 ml glass bottles. Reagents were immediately added on board and samples were then stored at dark.

Analysis
Analysis were performed at laboratory 6 hours later days later using an spectrophotometer according to the Koroleff procedure (Koroleff,)

Silicates
LOB-CNRS Marseille

Collection and storage of samples
Water samples were collected at different depth according to the water mass stratification, generally in, above and below the halocline and the maximum of chlorophyll depth by CTD/rosette

casts. Water was transferred from the Niskin bottles with a Teflon tube into 100 ml litres polyethylene bottles previously washed with chloride acid 2N and rinsed with MilliQ water before the cruise. 500 µl of mercuric chloride were added to poison the samples which stored at dark until analysis at laboratory.

Analysis
Analysis were performed at the laboratory two days later using an automated colorimetric procedure (Tréguer and LeCorre, 1965).

Primary production
LOB-CNRS Marseille

Collection and incubation of samples
Water samples were collected at different depth according to the water mass stratification, generally in, above and below the halocline and the maximum of chlorophyll depth by CTD/rosette casts. Water was transferred from the Niskin bottles with a Teflon tube into three 600 ml polycarbonate bottles. 0.5 ml of ^{13}C tracer ($H^{13}CO_3$ mg.l^{-1}) was added into 2 bottles while 2.5 ml were added in the third samples.

Analysis
13C enrichement were measured on au TracerMass massspectrometer

Dissolved organic matter
LOB-CNRS Marseille

Collection and storage of samples
Water samples were collected at different depth according to the water mass stratification, generally in, above and below the halocline and the maximum of chlorophyll depth by CTD/rosette casts. Water was transferred from the Niskin bottles with a Teflon tube into 50 ml glass. Samples were immediately poisoned with 1 ml H_2SO_4 5N and stored at dark until analysis.

Analysis
Organic carbon, nitrogen and phosphorus were measured using the wet-oxidation procedure described by Raimbault *et al.,* 1999.

6.2. Stratégie d'échantillonnage / *Sampling strategy*

Primary production :
Only one profile per cruise at 6 depths: surface-10 m, 20 m 30 m, 40 m, 60 m and 80 m.
Other parameters :
Only one profile per cruise during the night.

6.3. 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*

Data sent

6.4. Estimations des erreurs, précision, sensibilité des données / *Error estimates, precision and accuracy of the data*

Nitrate in $\mu moles.l^{-1}$: detection limit= 0.05 $\mu moles.l^{-1}$ accuracy = ± 0.05$\mu moles.l^{-1}$
Nitrite in $\mu moles.l^{-1}$: detection limit= 0.03 $\mu moles.l^{-1}$ accuracy = ± 0.03$\mu moles.l^{-1}$
Ammonium in $\mu moles.l^{-1}$: detection limit= 0.05 $\mu moles.l^{-1}$ accuracy = ± 0.05$\mu moles.l^{-1}$
Silicate in $\mu moles.l^{-1}$: detection limit= 0.02 $\mu moles.l^{-1}$ accuracy = ± 0.05$\mu moles.l^{-1}$
Primary production in $\mu molesC.l^{-1}.d^{-1}$: accuracy = ± 0.5 $\mu molesC.l^{-1}.d^{-1}$
Dissolved carbon in $\mu molesC.l^{-1}$: detection limit= 5 $\mu moles.l^{-1}$ accuracy = ± 5$\mu moles.l^{-1}$
Dissolved nitrogen in $\mu molesN.l^{-1}$: detection limit= 0.2 $\mu moles.l^{-1}$ accuracy = ± 0.3$\mu moles.l^{-1}$
Dissolved phosphorus in $\mu molesP.l^{-1}$: detection limit= 0.02 $\mu moles.l^{-1}$ accuracy = ± 0.02$\mu moles.l^{-1}$

7. FICHIERS / *FILES*

7.1. Nom de fichier de données */ file name*

7.2. Explication des têtes de colonne, des unités et des abréviations utilisées dans le fichier de données / *data file structure*

Azote inorganique dissous		Ammonium	
Noms et abréviations utilisées		Noms et abréviations utilisées	
Nitrate	NO_3	Ammonium	NH4
Nitrite	NO_2		
Silicates		**Production primaire**	
Noms et abréviations utilisées		Noms et abréviations utilisées	
Silicates	$SiOH_4$	Primary Production	PP
Dissolved organic matter			
Noms et abréviations utilisées			
Dissolved organic carbon	DOC		
Dissolved organic nitrogen	DON		
Dissolved organic phosphorus	DOP		

8. RESULTATS PRELIMINAIRES / *RESULTS*

9. REFERENCES BIBLIOGRAPHIQUES

Tréguer, P., LeCorre, P., 1975. Manuel d'analyses des sels nutritifs dans l'eau de mer (Utilisation de l'Autoanalyser II), 2ème edn. Laboratoire. de Chimie Marine, Université de Bretagne Occidentale, Brest, 110 pp.

Tréguer P.et P. Lecorre, 1965.

Raimbault P., Pouvesle W., Sempéré R., Diaz F, Garcia N, 1999. A simple procedure for simultaneous analysis of total and dissolved organic forms of carbon, nitrogen and phosphorus in seawater using the wet-oxidation technic. *Mar. chem.*, 66 : 161-169.